A Selective Affinity
Niklas Luhmann's Systems Theory and the Sense of Contingency, 1958-1973

By

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Abstract

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A Selective Affinity presents an intellectual history of what I call *Kontingenzsinn*—a "sense of contingency"—in postwar West Germany, using the early development of Niklas Luhmann's (1927-1998) sociological systems theory as a case study for examining its significance and dynamics. Before 1945 the term *Kontingenz* virtually never appeared in German, even in academic discourse. Between 1960 and 2008, however, the frequency with which it appeared in published books increased roughly six-fold. *Kontingenz,* a concept from modal logic meaning roughly "that which can be otherwise," or "that which is neither necessary nor impossible, became one of the most vital concepts of modern German intellectual life. Although the specific word *Kontingenz* was of particular symbolic significance, I emphasize not only its explicit appearance, but also the more diffuse field of meaning that it invokes—hence my use of the neologism "*Kontingenzsinn*."

The individual most responsible for this development, I argue, was the philosopher Hans Blumenberg, (1920-1996), the other major protagonist of *A Selective Affinity*. Blumenberg's argument concerning the role of the Christian theological concept of the "contingency of the world" in the origins of the modern world became one of the most influential narratives of modernity among German intellectuals of Luhmann's generation. A central axis of the dissertation describes and explains the substance of this affinity between Blumenberg and Luhmann, which centered on their shared understanding of *Kontingenzsinn*.

A Selective Affinity also argues that *Kontingenzsinn* in West Germany drew on the "selective affinity" of a wide range of elements dispersed across disciplines, intellectual traditions and continents, from cybernetics to scholastic theology. By giving attention to the specific affinity and historical trajectory of these elements, I aim to reveal the "work" the concept did for Luhmann and others intellectuals of his generation. To this end, I distinguish two different "dimensions" of *Kontingenzsinn*, namely, a "vertical" dimension that refers to the problem of the "grounds of existence" and the "horizontal" dimension of "other possibilities." Whereas the former belongs to the history of "ontotheological metaphysics," embodied in the question "why is there something rather than nothing?," the latter expresses the idea that something could be "otherwise." The horizontal dimension has closer affinities to the technical concepts of possibility, complexity, and selectivity that found expression within cybernetics and information theory.

The keystone of Luhmann's theory of society as a self-organizing social system, the "horizontal" dimension of *Kontingenzsinn* helped him eliminate the traces of the "vertical" dimension from the concept of rationality. Instead of the "old European metaphysics" of reason, which demanded explanations and justifications, Luhmann redefined rationality as a systems concept. Far

from antithetical to contingency, as reason had been for most of the European tradition, this concept of rationality embraced contingency.

My contention, however, is that Luhmann employed the specific term "*Kontingenz*" precisely because it also evoked the semantics, history, and pathos of the "vertical" dimension. The selective affinity of modern *Kontingenzsinn* was rooted in a fundamental ambivalence. Both of its dimensions, I argue, had been originally entwined in the metaphysical system of seventeenth century philosopher and polymath Gottfried Wilhelm Leibniz (1646-1716), above all in his *Theodicy* of 1710, which famously argued that the world we live in is the best of all possible worlds, despite the appearance of evil and suffering. But his argument ultimately rested upon a proto-cybernetic and theory of complexity that first brought to light the "horizontal" dimension of *Kontingenzsinn*. I use Leibniz's *Theodicy* as a symbolic anchor to help explain not only the "selective affinity" of the various elements of *Kontingenzsinn*, from cybernetics and decision theory to legal science and phenomenology, but also the rhetorical appeal of *Kontingenz* to Luhmann and his generation. *Kontingenzsinn* both engaged and tamed the existential absurdity, guilt, and responsibility they encountered while coming of age against the backdrop of Nazism and the Holocaust. Although occasionally mobilized to reject demands to master the past, it simultaneously condensed into a symbol for reckoning with German history and identity as a species of a more universal modernity.

For my parents

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INTRODUCTION
"A SENSE OF CONTINGENCY"

"'I'm only fortuitous,' Necessity leered."[1]
Robert Musil, *The Man Without Qualities*

» 1. "All that Is Possible…" «

Ulrich, the eponymous "Man without Qualities" of Robert Musil's uncompleted philosophical novel, confronts the reader as a cipher, a chameleon, shape shifter, or an opportunist, an empty placeholder ready to assume any number of values, masks, ideologies, roles, and identities. Set in Vienna in the years before the outbreak of World War I, the novel presents its protagonist as a model of pure self-reflective activity, reflexivity shorn of foundation or principle, untethered from any permanent context or institution, a seemingly exemplary case of that abstract subjectivity which Friedrich Heinrich Jacobi, in his famous critique of Kant, lambasted as the essence of nihilism.[2] But Ulrich, in Musil's hands, did not vanish into nothingness. Lacking substance and fixed qualities he leapt from context to context, institution to institution, straddling seemingly contradictory social worlds and roles without annihilating himself or withering away. He exemplified a kind of being-in-the-world an atmospheric sense of existence, which Musil called "*Möglichkeitssinn*," a "sense of possibility:" attentive to the contradictory demands on the individual, Ulrich experienced both external reality and his own identity as little more than diffuse nebulae of possible ways to be, retaining only the most meager coherence by dint of the gravity of his flesh. But this apparent lack of existential solidity did not suggest that Ulrich was "otherworldly." For that would amount to just another "quality." Quite the contrary: Ulrich was a function of his world.

But this world was not only that of the Hapsburg Empire at the precipice of its dissolution. Ulrich was a witness to the birth of a new modernity, in which the opening up of new vistas of possibility paradoxically increased not the world's transparency, but its opacity. Such was a result not of classical epistemological skepticism, or the impenetrability of the Kantian "thing-in-itself." Musil's sensibility did not stem from a concern for the objectivity of science, for the question of whether the knowledge of some discrete phenomenon could be verified as true, or for whether or not knowledge ever penetrated to the "essence" of something. Those were the old problems, the results of the still-simmering "crisis of historicism," the revaluation of values, and the relativism of truth. Musil's conundrum pressed the question of what happened to human subjectivity, society, culture and the concepts used to make sense of them once knowledge of all sorts, scientific and other, were accumulated *ad infinitum*. It was not the loss of truth that bothered Musil, but the problem of what happened once there was just "too much" truth to go around.[3]

The idea that modernity, understood as the dissolution of fixed forms, had uprooted traditional ways of life but also enabled new vistas of human freedom had a well-established

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[1] Robert Musil, *The Man Without Qualities Vol. 1: A Sort of Introduction and Pseudo Reality Prevails*, trans. Sophie Wilkins and Burton Pike, First Printing edition (New York: Vintage, 1996), 134.

[2] Friedrich Heinrich Jacobi, *Main Philosophical Writings and the Novel Allwill* (McGill-Queen's Press - MQUP, 1995), see in particular "Concerning the Doctrine of Spinoza in Letters to Moses Mendelssohn, (1789) 339–78, and especially Jacobi to Fichte (1791) 497–536; Frederick C. Beiser, *The Fate of Reason: German Philosophy from Kant to Fichte*, Reprint edition (Cambridge, Mass.: Harvard University Press, 1993), 44–91; Michael Allen Gillespie, *Nihilism Before Nietzsche* (University of Chicago Press, 1996).

[3] Andrew Abbott, "The Problem of Excess," *Sociological Theory* 32, no. 1 (March 2014): 1–26.

pedigree by the 1920's —Marx's "all that is solid melts into air" may have become one of the most resonant expressions of this sensibility, but even by 1848 it had nearly become a truism of cultural critique. Musil in interwar Vienna, however, fretted about something a little different. What he explored was not so much epistemological relativism or historical and cultural acceleration, whose excitement and terror Expressionists and Futurists had so vividly captured, but the dawn of a new era of multiplicity, with consequences spanning social, cultural, and human spheres. The world was continuously transformed by human activity, and human nature, in turn, became subject to its tempo. The distinctions orienting human life were not destroyed by this form of modernity so much as they were multiplied, mobilized, made flexible and adaptable.

Musil's literary portrait of early twentieth-century Vienna, in other words, contained a latent theory of modernity rooted in the subjective experience of contingency. This, after all, is what he meant by "*Möglichkeitssinn*," a "sense of possibility." For Musil this manifested as a destablizing of experience of historical time; when people look around and realize that "nowhere is a sufficient reason to be found why everything should have turned out the way it did; it could just as well have turned out differently; whatever happened was least of all their own doing but depended mostly on all sorts of circumstances, on moods, the life and death of quite different people; these events converged on one, so to speak, only at a given point in time."[4] In short, Musil's *Möglichkeitssinn* evoked what we now tend to describe as "contingency."

Historians are no strangers to this sense. In the past three decades the phrase "historical contingency" has become one of the discipline's most frequently flaunted slogans, a rallying cry for our professional identity, a performance of boundary work that marks us off from neighboring disciplines like sociology. To be a historian today means to pay fealty to historical contingency. It can be invoked to restore the sense of openness and vitality to the past—sometimes out of a methodological respect for the autonomy and alterity of the past, sometimes in order to "denaturalize" the present. It functions as an appeal to keep in mind the specific temporal horizons of historical agents, for whom the future always remained open and uncertain, to preserve their spontaneous, free action. In this form "historical contingency" becomes a mantra that aims to immunize the historian against the temptation of rendering historical processes too deterministic. It is an expression of revulsion at the suggestion that historical explanations must refer to "covering laws" to be scientifically credible. For some political and cultural historians since the 1980's it has served as a rebuke to Marxian and Weberian-inspired social histories that prioritize the logic of causal and structural explanations over the traditionally narrative- and detail-oriented practice of historical practice. No more philosophies of history, no more teleological metanarratives that run roughshod over the agency and lived experience of real human beings, but instead, the chance encounter, the radically singular moment, the decision that may have changed everything. The richness and complexity of the specific and local context of the past is supposed to take precedence over the presentist interests and abstractions imposed upon it.

But even for social historians and historical sociologists, the accidental "conjunctures" that bring seemingly disparate causal chains into contact with one another are no less important than the structures they undermine.[5] The idea of an event as contingent, they would say, has no meaning without reference to some notion of structure, some pattern, regularity, or even expectation against which something could appear as a deviation or surprise. For if every event were simply an unequivocal expression of structure, what could it possibly mean to say that things could have been "otherwise?" Or if contingency is relative to expectations, is it to the expectations of the historical

[4] Musil, *The Man Without Qualities Vol. 1*, 137.
[5] William H. Sewell, *Logics of History: Social Theory and Social Transformation* (Chicago: University Of Chicago Press, 2005).

actors, or to the expectations of the historian, equipped with knowledge of the trajectories, regularities and dynamics of social processes unavailable to those actors?

Contingency might be the result of the disjunction between actor's expectations and the expectations of the historian, who has benefit of hindsight and social scientific concepts with which to observe historical patterns invisible to its participants. What, then, justifies the historian's expectations? On what grounds does a historian decide that an event represented a "deviation?" This problem shows up in the uneasy juxtaposition between historians' praise of "historical contingency" and their common injunction against entertaining "counterfactuals."[6] While suspicion of counterfactuals may serve as a useful caution against tendentious and unprovable speculation, is it really meaningful to say that something could have been "otherwise" without reference to "other possibilities?" And if not, then of what do these possibilities consist? Where do they come from? This, in turn, raises the question: what do we really mean when we invoke "historical contingency?" Do we mean that history has moments of pure ontological caprice, of aleatoric randomness? And if so, is this because of the nature of causality, or the indeterminacy of all human meaning and the unknowability of the future for actors in the past? Is contingency the mark of resistance to explanation, the bare and arbitrary facticity of the world asserting itself which can only be described? Or is it rather precisely the explainable, the source and locus of historical meaning? This elusive relationship between contingency and intelligibility crops up at every turn of the historians' craft. In short, if "contingency" is the universal credo of the historical profession, the "historians' a priori" no less than a "historical a priori," it can only be as a *problem*, and not as a fact.

Contemporary North American historians have not been alone, however, in their curious affinity for the entrancing and pathologically ambiguous semantics of contingency. Others have long found in contingency problems of similarly "universal" scope. Writing from Berlin around the same time that Musil's Ulrich plodded around Vienna, just before the unanticipated outbreak of the First World War, the liberal-Protestant theologian Ernst Troeltsch reflected explicitly on the unparalleled scope of "the problem of contingency" with respect to the challenges it presented to philosophical rationalism. Contingency, he pronounced, "contains *in nuce* all philosophical problems, just as from the other direction the problem of rationalism includes all of them. It is the question of the relationship of the rational to the irrational, of the factual to the conceptual, of creation to the eternity and necessity of the world."[7] Although often taken as a manifestation of the irrational in the world, contingency might simply be construed as a certain angle of approaching what it means for something to be rational at all.

In the most straightforward sense, contingency just means that something could be "otherwise." What exists could also not exist, might never have existed, or could exist differently. An expression of our counterfactual imaginary, it finds its voice in the subjunctive conditional: how might things look different *now* if something else had happened *then*? What *would* have happened *if*…? The opposite of "necessity," contingency is also often used as a synonym for chance, coincidence, accident, and serendipity. We often invoke it to refer to something surprising or unexpected, or even to the irruption of "irrationality" or "chaos" into order. We speak of "contingency plans," for instance, when making provisions for unforeseen events. Contingency can become manifest in experiences of anxiety before the uncertainty of the future, the uncertainty of how others may decide to act. At times it appears as reality's recalcitrance, as fickle fortune frustrating our best laid plans. But it may, on the contrary, take on the sense of "chance" not only as "accident" but also as "opportunity," as a mark of the fungibility of reality, its openness to alteration.

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[6] Catherine Gallagher, *Telling It Like It Wasn't: The Counterfactual Imagination in History and Fiction* (University of Chicago Press, 2018).

[7] Ernst Troeltsch, "Die Bedeutung des Begriffs der Kontingenz," *Zeitschrift für Theologie und Kirche* 20 (1910): 429.

Here it suggests the promise that things could be different—perhaps even *better*. In short, contingency as we use it in everyday life is a complex, ambiguous, and ubiquitous concept. But it is also more than a concept, something more diffuse; a complex of meanings and experiences for which the term contingency only serves as a symbol. Or, to adapt Musil's *Möglichkeitssinn*, what I'm really interested in is that wider field of "*Kontingenzsinn,*" the "sense of contingency."

» 2. Modality *à la Mode* «

Kontingenzsinn is hardly original to postwar West Germany. Its dimensions, even when restricted to the modern world, are too numerous to discuss adequately in a brief introduction. A comprehensive account would have to include such threads as the history of probability and statistics;[8] the sociological and political-economic salience of risk, uncertainty, and precarity[9]; the counterfactual imagination, possible worlds semantics, and modal logic[10]; Richard Rorty's neo-pragmatism;[11] Darwinism and modern evolutionary biology[12]; thermodynamics, quantum physics, and chaos theory[13]; phenomenology, existentialism, and (post-)structuralism[14]; the "philosophy of the event" [15]; and most recently, "speculative realism."[16]

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[8] Lorraine Daston, *Classical Probability in the Enlightenment* (Princeton, N.J: Princeton University Press, 1988); Ian Hacking, *The Emergence of Probability: A Philosophical Study of Early Ideas about Probability, Induction and Statistical Inference* (Cambridge University Press, 1984); Ian Hacking, *The Taming of Chance*, Ideas in Context (Cambridge [England] ; New York: Cambridge University Press, 1990); Theodore M. Porter, *The Rise of Statistical Thinking, 1820-1900*, Reprint edition (Princeton, N.J.: Princeton University Press, 1988); Rüdiger Campe, *The Game of Probability: Literature and Calculation from Pascal to Kleist*, trans. Ellwood Wiggins (Stanford, CA: Stanford University Press, 2012).

[9] Frank H. Knight, *Risk, Uncertainty and Profit* (Boston: Houghton Mifflin Company, 1921); Alvin Toffler, *Future Shock* (Bantam Books, 1990); Ulrich Beck, *Risikogesellschaft: Auf dem Weg in eine andere Gesellschaft* (Frankfurt (am Main): Suhrkamp Verlag, 1986); Nassim Nicholas Taleb, *The Black Swan: The Impact of the Highly Improbable* (Random House Publishing Group, 2007); Elie Ayache, *The Blank Swan: The End of Probability* (Chichester, West Sussex, U.K: John Wiley & Sons, 2010); Elena Esposito, *The Future of Futures: The Time of Money in Financing and Society* (Edward Elgar Publishing, 2011); Judith Butler, *Precarious Life: The Powers of Mourning and Violence* (Verso, 2004); Isabell Lorey, *State of Insecurity: Government of the Precarious* (Verso Books, 2015).

[10] Gallagher, *Telling It Like It Wasn't*; Mary-Jane Rubenstein, *Worlds Without End: The Many Lives of the Multiverse*, Reprint edition (Columbia University Press, 2015); Saul A. Kripke, *Naming and Necessity* (Harvard University Press, 1980); David K. Lewis, *On the Plurality of Worlds* (B. Blackwell, 1986).

[11] Richard Rorty, *Contingency, Irony, and Solidarity*, 1st PB edition (Cambridge ; New York: Cambridge University Press, 1989).

[12] Stephen Jay Gould, *Wonderful Life: The Burgess Shale and the Nature of History* (W. W. Norton & Company, 1990); Barry Allen, "The Abyss of Contingency: Purposiveness and Contingency in Darwin and Kant," *History of Philosophy Quarterly* 20, no. 4 (October 1, 2003): 373–91.

[13] Katherine Hayles, *Chaos Bound: Orderly Disorder in Contemporary Literature and Science*, 1 edition (Ithaca, N.Y: Cornell University Press, 1990); Paul Forman, "Weimar Culture, Causality, and Quantum Theory 1918-1927: Adaptation by German Physicists and Mathematicians to a Hostile Intellectual Environment," in *Quantum Mechanics: Science and Society*, ed. Peter Galison, Michael Gordin, and David Kaiser (Routledge, 2013).

[14] Jean-Paul Sartre, *Nausea* (New York: New Directions, 2013); Ethan Kleinberg, *Generation Existential: Heidegger's Philosophy in France, 1927-1961*, 1 edition (Cornell University Press, 2007); Louis Althusser, *Philosophy of the Encounter: Later Writings, 1978-87* (Verso, 2006); Knox Peden, *Spinoza Contra Phenomenology: French Rationalism from Cavaillès to Deleuze*, Cultural Memory in the Present (Stanford, California: Stanford University Press, 2014).

[15] Alain Badiou, *Being and Event* (A&C Black, 2007); Martin Jay, "Historical Explanation and the Event: Reflections on the Limits of Contextualization," *New Literary History* 42, no. 4 (2011): 557–71; Martin Jay, "Historicism and the Event," in *Against the Grain: Jewish Intellectuals in Hard Times*, ed. Ezra Mendelsohn, Stefani Hoffman, and Richard I. Cohen (New York: Berghahn Books, 2013); Robin Wagner-Pacifici, *What Is an Event?*, 1 edition (University of Chicago Press, 2017).

[16] Quentin Meillassoux, *After Finitude: An Essay on the Necessity of Contingency*, trans. Ray Brassier (London ; New York: Bloomsbury Academic, 2010); Markus Gabriel and Slavoj Žižek, *Mythology, Madness, and Laughter: Subjectivity in German*

But nowhere and at no time have invocations of "contingency" been more urgent and pathos-laden than in West German academic and public life in the decades following World War Two. The concept's special status was firmly consecrated when the illustrious interdisciplinary working group, *Poetik und Hermeneutik*, made it the theme of its final meeting in 1994.[17] As Franz Joseph Wetz put it in one his contributions to the laconically titled "*Kontingenz*," by the 1990's the idea of the "contingency of the world" had become a "slogan of contemporary philosophy."[18] And since then it has evidently become only more fashionable for German academics to title their books with the formulaic "X and *Kontingenz*" or "the X of *Kontingenz*."[19] This sudden vogue for what had originally been nothing more than an obscure academic term of modal logic and metaphysics has been especially pronounced in studies of modern literature,[20] politics,[21] and religion.[22] Two recent lengthy studies have unearthed its conceptual history in exacting detail.[23] But the most consistently stressed theme among German scholars of *Kontingenz*, however, has undoubtedly been its relation to the problem of "modernity." A sociological and philosophical cottage industry has cropped up,

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Idealism (London ; New York: Continuum, 2009); Markus Gabriel, *Transcendental Ontology: Essays in German Idealism* (London; New York: Bloomsbury, 2013).

[17] Gerhard von Graevenitz, Odo Marquard, and Matthias Christen, eds., *Kontingenz*, vol. 17, Poetik und Hermeneutik (München: Fink, Wilhelm, 1998).

[18] Franz Josef Wetz, "Kontingenz der Welt - ein Anachronismus?," in *Kontingenz*, ed. Gerhard von Graevenitz, Odo Marquard, and Matthias Christen, vol. 17, Poetik und Hermeneutik (München: Fink, Wilhelm, 1998), 81.

[19] Matthias Jung, "Zur Konjunktur von Kontingenz," *MERKUR* 46, no. 12 (1992): 1126–31; Norbert Ricken, *Subjektivität und Kontingenz: Markierungen im pädagogischen Diskurs* (Königshausen & Neumann, 1999); Ursula Pfeiffer, *Kontinuität und Kontingenz: Zeitlichkeit als Horizont systematischer Überlegungen in der Erziehungswissenschaft* (Julius Klinkhardt, 2007); Hans Radermacher, *Humanismus und Kontingenz: Beiträge zum Neorationalismus* (P. Lang, 1998); Thorsten Bonacker, *Die normative Kraft der Kontingenz: nichtessentialistische Gesellschaftskritik nach Weber und Adorno* (Campus Verlag, 2000); Heinz Harbach, *Existenz und Kontingenz: Heidegger und das Ende der soziologischen Vernunft*, Socialia, Bd. 97 (Hamburg: Kovač, 2008); Michael Makropoulos, *Modernität und Kontingenz* (Fink, 1997); Michael Th Greven, *Kontingenz und Dezision: Beiträge zur Analyse der politischen Gesellschaft* (Opladen: Leske + Budrich, 2000); Katrin Toens and Ulrich Willems, *Politik und Kontingenz* (Springer-Verlag, 2012).

[20] Matthias Luserke, *Wirklichkeit und Möglichkeit: Modaltheoretische Untersuchung zum Werk Robert Musils* (P. Lang, 1987); Ingrid Berger, *Musil mit Luhmann: Kontingenz - Roman - System* (München: Wilhelm Fink Verlag, 2004); Oto Morár, *Zufall und Kontingenz in Robert Musils "Mann ohne Eigenschaften"* (GRIN Verlag, 2014); Cornelia Herberichs and Susanne Reichlin, *Kein Zufall: Konzeptionen von Kontingenz in der mittelalterlichen Literatur* (Vandenhoeck & Ruprecht, 2009); Martin Dillmann, *Poetologien der Kontingenz: Zufälligkeit und Möglichkeit im Diskursgefüge der Moderne* (Böhlau Verlag Köln Weimar, 2011); Michael Baum, *Kontingenz und Gewalt: semiotische Strukturen und erzählte Welt in Alfred Döblins Roman Berlin Alexanderplatz* (Königshausen & Neumann, 2003); Werner Frick, *Providenz und Kontingenz: Untersuchungen zur Schicksalssemantik im deutschen und europäischen Roman des 17. und 18. Jahrhunderts* (Walter de Gruyter, 1988); Rudolf Behrens, *Umstrittene Theodizee, erzählte Kontingenz* (Niemeyer, 1994).

[21] Michael Th Greven, *Systemopposition: Kontingenz, Ideologie Und Utopie Im Politischen Denken Der 1960er Jahre*, Sammlung Budrich--Texte Zur Gesellschaft (Opladen: Verlag Barbara Budrich, 2011); Greven, *Kontingenz und Dezision*; Michael Th Greven, *Politisches Denken in Deutschland nach 1945: Erfahrung und Umgang mit der Kontingenz in der unmittelbaren Nachkriegszeit* (Opladen; Farmington Hills: Barbara Budrich, 2007); Toens and Willems, *Politik und Kontingenz*; Rieke Trimcev, *Politik als Spiel: Zur Geschichte einer Kontingenzmetapher im politischen Denken des 20. Jahrhunderts* (Nomos Verlag, 2018).

[22] Philipp Stoellger and Ingolf U Dalferth, eds., *Vernunft, Kontingenz, und Gott: Konstellationen eines offenen Problems* (Tübingen: Mohr Siebeck, 2000); Philipp Stoellger and Ingolf U Dalferth, eds., "Die Vernunft der Kontingenz und die Kontingenz der Vernunft. Leibniz' theologische Kontingenzwahrung und Kontingenzsteigerung," in *Vernunft, Kontingenz, und Gott: Konstellationen eines offenen Problems* (Tübingen: Mohr Siebeck, 2000); Kurt Wuchterl, *Kontingenz oder das Andere der Vernunft. Zum Verhältnis von Philosophie, Naturwissenschaft und Religion*, 1. Aufl. (Stuttgart: Franz Steiner Verlag, 2011); Hans-Ulrich Dallmann, *Das Kontingenzproblem Bei Niklas Luhmann Im Blick Auf Religion, Kirche Und Gemeinde /: Hans-Ulrich Dallmann*, Texte Und Materialien Der Forschungsstätte Der Evangelischen Studiengemeinschaft. Reihe B, Nr. 14 (Heidelberg: Forschungsstätte der Evangelischen Studiengemeinschaft, 1992).

[23] Arnd Hoffmann, *Zufall und Kontingenz in der Geschichtstheorie: mit zwei Studien zu Theorie und Praxis der Sozialgeschichte* (Vittorio Klostermann, 2005); Peter Vogt, *Kontingenz und Zufall: Eine Ideen- und Begriffsgeschichte. Mit einem Vorwort von Hans Joas* (Walter de Gruyter, 2011).

producing seemingly endless studies on the relationship between modernity and contingency.[24] Virtually all of them agree on one basic point: whatever modernity is, its definitive quality obviously lies in *Kontingenz*.

But *Kontingenz* is also more than just a ubiquitous catchall concept. It has exercised a uniquely acute "*Faszinationskraft*"—a power of fascination—over several generations of German intellectuals due to its specific connotations and pathos. For all the ink spilled on its relevance for modernity, for German intellectuals *Kontingenzsinn* is not simply a matter of modernity: rather, it speaks to *their* modernity. And though the ideas it gathers have deep roots German philosophy and social thought, *Kontingenz* is in important respects a startlingly new theme. As Rüdiger Campe has recently put it, "contingency may be one of the very few concepts of specifically post–World War II German affiliation in the history of contemporary thought."[25]Apart from scholars of scholastic theology and Leibnizian metaphysics, virtually no one in Germany before 1945 used the term *Kontingenz*. And although it experienced some growth in the first decade and a half after the war, its "take off" only occurred circa 1960, after which the frequency of its use grew roughly six-fold by 2008, as is depicted in the ngram in Figure 1:

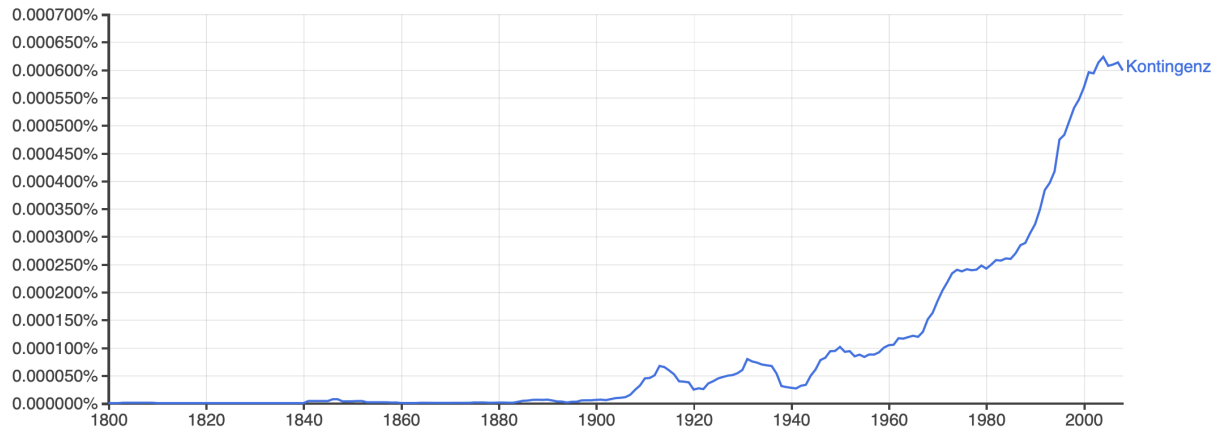

Figure 1: Frequency of Appearance of "Kontingenz" in German Language Books, 1800-2008. Generated using Google nGrams (http://books.google.com/ngrams) on 4/26/2019

Compare that to its (British and American) English and French cousins:

[24] Zygmunt Bauman, *Modernity and Ambivalence* (Oxford: Polity, 1993); Makropoulos, *Modernität und Kontingenz*; Michael Makropoulos, "Krise und Kontingenz. Zwei Kategorien im Modernitätsdiskurs der klassischen Moderne," in *Die "Krise" der Weimarer Republik: zur Kritik eines Deutungsmusters*, ed. Moritz Föllmer, Rüdiger Graf, and Michael Makropoulos (Campus Verlag, 2005); Markus Holzinger, *Kontingenz in der Gegenwartsgesellschaft: Dimensionen eines Leitbegriffs moderner Sozialtheorie* (transcript Verlag, 2007); Wolfgang Knöbl, *Die Kontingenz der Moderne: Wege in Europa, Asien und Amerika* (Campus Verlag, 2007); Arndt Brendecke and Peter Vogt, *The End of Fortuna and the Rise of Modernity* (Walter de Gruyter GmbH & Co KG, 2017).

[25] Rüdiger Campe, "Contingencies in Blumenberg and Luhmann," *Telos* 2012, no. 158 (March 1, 2012): 89.

Figure 2: Frequency of Appearance of "Contingency" and "contingency" in English Language Books, 1800-2008. Generated using Google nGrams (http://books.google.com/ngrams) on 4/26/2019

Figure 3: Frequency of Appearance of "Contingence" and "contingence" in French Language Books, 1800-2008. Generated using Google nGrams (http://books.google.com/ngrams) on 4/26/2019

What accounts for this dramatic explosion of interest in *Kontingenz*? The first wave of titles related to *Kontingenz* in the 1960's and early 1970's were, for the most part, not yet overtly concerned with the problem of modernity. Most consisted of philosophical investigations of the meaning and history of the term.[26] Neither of the two major figures involved in the *Poetik und Hermeneutik* volume and active at the time, Odo Marquard and Hermann Lübbe, would begin writing explicitly about *Kontingenz* until the mid-late 1970's[27]—although both, instructively, had been concerned with issues of modernity, theodicy, secularization, and the philosophy of history for at least a decade prior.[28]

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[26] D. Henrich, "Hegels Theorie über den Zufall," *Kant-Studien* 50 (January 1, 1958); Heinrich Beck, *Möglichkeit und Notwendigkeit: eine Entfaltung der ontologischen Modalitätenlehre im Ausgang von Nicolai Hartmann*, 1. Aufl, Pullacher philosophische Forschungen, Bd. 5 (Pullach bei München: Verlag Berchmanskolleg, 1961); Heinrich Schepers, "Zum Problem der Kontingenz bei Leibniz: Die beste der möglichen Welten," in *Collegium Philosophicum ; Studien Joachim Ritter zum 60. Geburtstag*, ed. Ernst-Wolfgang Böckenförde (Schwabe & Co Verlag, 1965); Josef Schmucker, *Das Problem der Kontingenz der Welt Versuch einer positiven Aufarbeitung der Kritik Kants am kosmologischen Argument.* (Freiburg (i. Br.; Basel; Wien: Herder, 1969); Wolfgang Cramer, *Das Absolute und das Kontingente: Untersuchungen zum Substanzbegriff* (Frankfurt am Main: Klostermann, 1976).

[27] Hermann Lübbe, *Fortschritt als Orientierungsproblem. Aufklärung in der Gegenwart* (Freiburg (im Breisgau): Rombach Verlag KG, 1975); Odo Marquard, *In Defense of the Accidental*, trans. Robert M. Wallace (New York: Oxford University Press, 1991).

[28] Hermann Lübbe, *Säkularisierung: Geschichte eines ideenpolitischen Begriffs* (Freiburg: Alber, 1965); Odo Marquard, *Schwierigkeiten mit der Geschichtsphilosophie: Aufsätze* (Frankfurt (am Main): Suhrkamp, 1973).

The common denominator of all of these projects was the philosopher to whose memory the *Kontingenz* volume of *Poetik und Hermeneutik* was dedicated: Hans Blumenberg.

Hans Blumenberg and the Origins of Modern Kontingenzsinn

It is one of the central contentions of this dissertation that the unprecedented "take off" of *Kontingenz* in postwar West Germany was facilitated by the work of the philosopher Hans Blumenberg (1920-1996). Among the most important and consistent themes throughout his life's work, *Kontingenz* may have also been one of Blumenberg's most lasting contributions to the postwar German intellectual world.

Still relatively unknown in the United States today, Blumenberg was a titan of the West German intellectual world. The extent of his influence, only slowly becoming clear in its depth and pervasiveness, is particularly astounding considering that, unlike virtually every other German philosopher of his stature, he never founded a "school." In the United States he is best known for a trio of massive tomes published in the 1960's and 70's and translated in the 1980's: *Legitimacy of the Modern Age* (1966), *Genesis of the Copernican World* (1975), and *Work on Myth* (1979).[29] His other major claim to fame owes to his methodological project for a "metaphorology" first announced in 1960, which he presented an alternative to the then-dominant conceptual historical approach of German philosophy.[30]

But it was above all *Legitimacy of the Modern Age* that cemented his reputation as a key voice in the "secularization debates" of the late 1960's and early 1970's, the theme with which he is most closely identified in the United States. His famous thesis disputing the "secularization thesis" as presented by Karl Löwith and Carl Schmitt—that "all modern philosophies of history are secularized eschatologies," and that "all significant concepts of the modern theory of the state are secularized theological concepts," respectively—also just happened to turn on a narrative that rooted the origins of the modern age in an experience of contingency.

It may appear counterintuitive, then, that Blumenberg had already explicitly defined contingency as an originally *theological* concept. In 1959, seven years before publishing *Legitimacy*, he penned a very brief entry on the concept for a religious encyclopedia, which opened with a most audacious claim: "Contingency," Blumenberg pronounced, was among "the few concepts of specifically Christian provenance in the history of metaphysics."[31] World contingency, he argued, was a product of the syncretism of creationist theology and Greek metaphysics. Whereas for Greek antiquity the "cosmos" was closed, finite, and yet eternal and necessary, with the introduction of the idea of *creatio ex nihilo* (creation from nothing), Christian theology made the non-existence of the world a possibility for the first time. The world did not have to *be*; rather, it depended on God's will for its existence. In other words, the world became contingent.

But it was *Legitimacy of the Modern Age* that would become the foundational text for postwar West German *Kontingenzsinn*. The basic thesis of *Legitimacy*, in a nutshell, is that modernity was born of an exposure to the experience of contingency occasioned by the radical voluntarism of late

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[29] Hans Blumenberg, *The Legitimacy of the Modern Age*, trans. Robert M. Wallace (MIT Press, 1983); Hans Blumenberg, *The Genesis of the Copernican World*, trans. Robert M. Wallace (Cambridge: The MIT Press, 1985); Hans Blumenberg, *Work on Myth*, trans. Robert M. Wallace (Cambridge, Mass.: The MIT Press, 1988).

[30] Hans Blumenberg, *Paradigms for a Metaphorology*, trans. Robert L. Savage (Ithaca, N.Y: Cornell University Press, 2010); Hans Blumenberg, *Shipwreck With Spectator: Paradigm of a Metaphor for Existence* (MIT Press, 1997); Hans Blumenberg, *Theorie der Unbegrifflichkeit*, ed. Anselm Haverkamp, 2 edition (Frankfurt am Main: Suhrkamp Verlag, 2007); Hans Blumenberg, *Ästhetische und metaphorologische Schriften*, Auflage: 3 (Frankfurt am Main: Suhrkamp Verlag, 2001).

[31] Hans Blumenberg, "Kontingenz," in *Die Religion in Geschichte und Gegenwart. Handwörterbuch für Theologie und Religionswissenschaft.*, ed. Kurt Galling and Hans Freiherr von Campenhausen, vol. 3 (Tübingen: Mohr, 1959), 1794. Campe's claim about *Kontingenz*, quoted earlier, was explicitly intended as a play on this expression.

medieval "nominalist" theology. In short, theologians like William of Ockham had insisted so resolutely on the infinite power of God's will, free of any imaginable restrictions, that they undermined the sense of trust in the reliability and intelligibility of the created world. This "intolerable" experience of nihilism *avant la lettre*, in Blumenberg's reading, then compelled Europeans at the turn of the modern age to posit the idea of the "self-assertion" of human reason as the only possible means to secure an island of order in a sea of uncertainty, to "overcome" the potentially nihilistic consequences of the existential precarity of the world. *Kontingenz* thus took on a double valence: it could be experienced equally as a source of terror and anxiety and a source of opportunity—a bottomless abyss and an enticement to human creativity.

However, the emergence of the world's contingency was not only a matter of its sheer "groundlessness," but also and just as crucially a problem of its *moral* order. The nominalists' prioritization of divine omnipotence was only a stage in the longer history of a problem that since Leibniz has come to be known as "theodicy." A neologism Leibniz coined in 1710 literally meaning "God's Justice" from the Greek *theo* + *dike*, theodicy was the name for the perennial question of monotheistic theology of how evil and suffering can be justified in a world created by a perfect being. The biblical story of Job provides the classical example. For Blumenberg, the pivotal issue was the solution to this problem offered by Gnosticism, a general label given to a set of heretical sects in early Christianity, which claimed that the creator of the world was actually a false god, an evil "demiurge" (a term taken from Plato's *Timaeus*) distinct from the true God of redemption, who was thereby absolved of all responsibility for the evil in the world. Augustine, a one time gnostic himself, provided what became the orthodox defense of Christian Middle Ages: namely, God could be immunized from the taint of sin by making it the exclusive product of human free will. Humanity thus became burdened with a responsibility for a cosmic evil that could it could never redeem alone, a repository for the moral disorder of the world, to which nominalism later added the burden of having to cope with a world, whose order could no longer be guaranteed by recourse to divine providence. In so "abandoning" the world, nominalism represented a kind recrudescence of Gnosticism, with modernity figuring as its "second overcoming."

The experience captured by the concept of contingency was thus a moral, cognitive, and existential catalyst of the epochal transformation of the modern world. The specific meaning of the chemical metaphor of the catalyst is particularly apropos: contingency was a concept forged in the creationist theology of the Middle Ages, and though its activity destabilized that order it nevertheless persisted through that transformation, becoming a fundamental and insuperable element of the modern age's rational and technoscientific self-organization.

Niklas Luhmann's Systems Theoretical Kontingenz

Self-organization, or order from noise: in the second-half of the twentieth century this became the post-industrial world's version of the mythical "order out of chaos."[32] Except for the new paradigm of "systems theory" it no longer referred to a passage between two distinct ontological states, but a dynamic gradient in complexity, between more and less complex. But for all their emphasis on uncertainty, indeterminacy, possibility, variety and complexity, "contingency" only rarely if ever entered the lexicon of systems theory—with the stark exception of German sociologist Niklas Luhmann (1927-1998).

Luhmann's claim to fame rests upon his lifelong construction of a single, massive "systems theory of society," what one commentator has called a "glass cathedral of theoretical architecture."[33] Virtually unparalleled in the annals of social theory in its level of abstraction and complexity, the

[32] I Prigogine and Isabelle Stengers, *Order out of Chaos: Man's New Dialogue with Nature* (New York, N.Y.: Bantam, 1984).
[33] "*Glaskathedralen der Theoriearchitektur.*" Walter Reese-Schäfer, *Niklas Luhmann zur Einführung* (Junius Verlag, 2019), 175.

theory itself mirrored the winding labyrinths of the society it described.[34] It described modern society as a self-organizing—later "autopoietic" and "self-observing"—system of communications that constantly reproduces itself from moment to moment and manages the overwhelming complexity of the world through a process of "functional differentiation."[35]

Contingency has long been recognized as one of the most important keywords in Luhmann's *oeuvre*, second to none and on par with foundational concepts like the "reduction of complexity," "functional differentiation" and the "system/environment distinction." It would have been hard to miss, with late titles like 1992's "Contingency as Modern Society's Defining Attribute" explicitly spelling out a vision which by then had already been operative in every one of Luhmann's major texts from the previous two decades.[36] Not only were references to *Kontingenz* littered throughout his corpus, the concept had become one of the most important planks in his grand theoretical architecture. "Contingency as Modern Society's Defining Attribute" referred to contingency as the "Midas touch of modernity," while *Social Systems* (1984), Luhmann's first complete presentation of his mature vision of sociological systems theory, definitively cemented the concept's status by dedicating its second chapter to the theory of "double contingency."[37] A term lifted from American sociologist Talcott Parsons, double contingency referred to the kind of situational indeterminacy involved in every social interaction, where it became the generative core of all social order. Even earlier, in his 1971 debate with Jürgen Habermas, Luhmann all but equated the concept of contingency with the medium of "meaning" [*Sinn*] through which social systems evolve and reproduce themselves. This concept of meaning, which Luhmann adapted from Husserl, referred to the mode in which the world shows up to consciousness as not only the set of *actual* things it explicitly intends, but as an infinitely receding horizon of other possible experiences. Like contingency, in other words, "meaning" consisted of the reference of every actuality to "other possibilities."

Less well known, however, is the degree to which Luhmann's *Kontingenz* depended on Blumenberg's narrative exposition. To my knowledge, only one scholarly article has drawn attention to the curious affinity between Blumenberg and Luhmann in the concept of *Kontingenz*. In a short essay from 2012, Rüdiger Campe has pointed out some of the similarities between the two thinkers, emphasizing in particular their common identification of modernity with the experience of contingency, and noting the experience of dislocation incurred by the Second World War on their generation as a partial explanation. But in then turning hastily to point out their differences, Campe overlooks some of their most decisive commonalities. It is certainly true that Blumenberg and Luhmann belonged to very distinct disciplines. But their notions of contingency did not develop independently in parallel to one another, as Campe suggests.[38] In fact, their visions of contingency

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[34] Norbert Bolz has also connected Luhmann's systems theory to the image of the labyrinth. See his *Ratten im Labyrinth. Niklas Luhmann und die Grenzen der Aufklärung* (Munich: Wilhelm Fink, 2012).

[35] For a general overview of approaches to sociology as a science of complexity, including Luhmann's systems theory,see Brian Castellani and Frederic William Hafferty, *Sociology and Complexity Science: A New Field of Inquiry* (Berlin: Springer, 2009).

[36] Niklas Luhmann, "Contingency as Modern Society's Defining Attribute," in *Observations on Modernity*, trans. William Whobrey (Stanford, CA: Stanford University Press, 1998).

[37] Niklas Luhmann, *Soziale Systeme: Grundriss einer allgemeinen Theorie* (Suhrkamp, 1984); Niklas Luhmann, *Social Systems*, trans. John Bednarz Jr. and Dirk Baecker (Stanford, CA: Stanford University Press, 1995); Luhmann, "Contingency as Modern Society's Defining Attribute," 44.

[38] Niklas Luhmann, "Identitätsgebrauch in selbstsubstitutiven Ordnungen, besonders Gesellschaften," in *Identität*, ed. Odo Marquard, Karlheinz Stierle, and Forschungsgruppe Poetik und Hermeneutik, vol. 8, Poetik und Hermeneutik (München: W. Fink, 1979); Jürgen Habermas, "Über das Subjekt der Geschichte (Diskussionsbeitrag zu falsch gestellten Alternativen)," in *Geschichte - Ereignis und Erzählung.*, ed. Wolf-Dieter Stempel and Reinhart Koselleck (Munich: Fink Verlag, 1973).

had more in common with one another than either did with others in their respective discipline. It simply is not the case, as Campe claims, that Blumenberg was interested in "witnessing" the origins of modern order in "ontotheological" contingency, while Luhmann developed a cybernetic theory of the "forgetting" of the origins of order in contingency. They each reflected on both of those moments, in no small part because for both contingency was an *essentially ambiguous concept*.

But even more decisive was the fact that Luhmann did not simply discover *Kontingenz* independently of and in parallel to Blumenberg, but directly appropriated it from him. Only after reading Blumenberg's essay, "Lifeworld and Technization from the Perspective of Phenomenology," and, shortly thereafter, *Legitimacy of the Modern Age*, did Luhmann begin to use the term *Kontingenz* in his writings, beginning roughly in 1967, and accelerating rapidly around 1970.[39] The citation history alone makes this clear. But the conceptual affinity is far greater than mere citations. For anyone familiar with Blumenberg's *Legitimacy*, it is hard to miss how essays like "Contingency as Modern Society's Defining Attribute" recapitulate its basic narrative elements. While all social interaction involves contingency, the evolution of modern functionally differentiated societies, he argued, following Blumenberg, corresponded to an increasing consciousness in the late Middle Ages of the contingency of the world. And if the published citations and conceptual affinities were not enough, a small piece of archival evidence closes the case: that Luhmann considered Blumenberg the source of his concept of *Kontingenz* is attested by the one extant piece of correspondence between the two scholars. Included in Blumenberg's *Nachlass* at the *Deutsches Literaturarchiv* in Marbach-am-Neckar are two letters sent by Luhmann in 1969-1970—a copy of Blumenberg's response was evidently not preserved. In these letters, Luhmann reached out to inquire about literature on the English-language meaning of contingency for an essay on contingency and generalized media he was composing for a Talcott Parsons *Festschrift*.[40] His follow-up thanking Blumenberg for his reply explicitly acknowledged his elder as the authority on the topic of contingency. "Of course, I am familiar with your contribution to the problem," Luhmann confirmed: "it provided the occasion for my letter."[41]

Given Blumenberg's overwhelming stature with respect to the efflorescence of modern *Kontingenzsinn* in the Federal Republic of Germany, it may seem odd that this dissertation emphasizes Luhmann's early work over Blumenberg's. One reason is simply that Anglophone historians have so far paid Luhmann virtually no attention, whereas Blumenberg has become a more familiar presence—at least in some schools of intellectual history. This dissertation aims to make up for this lack. Another reason is that Blumenberg has been such a powerful influence on my own understanding of the history of ideas that it seemed advisable to take some distance from his work. Nevertheless, I have dedicated the second and longest chapter of this dissertation to a careful reconstruction of the genesis and structure of his interpretation of *Kontingenzsinn*. And those familiar with his texts will not find it difficult to detect his presence throughout the dissertation.

It is above all the intrinsic qualities of Luhmann's systems theory, however, which make it such a fascinating case for studying the dynamics of modern *Kontingenzsinn* in postwar West Germany. For one, unlike Blumenberg's irony-laden historical reconstructions, which never

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[39] Hans Blumenberg, "Lebenswelt und Technisierung unter Aspekten der Phänomenologie," in *Wirklichkeiten in denen wir leben: Aufsätze und eine Rede* (Stuttgart: P. Reclam, 1981); Niklas Luhmann, "Soziologische Aufklärung," *Soziale Welt* 18 (1967): 97–123; reprinted as Niklas Luhmann, "Soziologische Aufklärung," in *Soziologische Aufklärung 1: Aufsätze zur Theorie sozialer Systeme* (Wiesbaden: VS Verlag für Sozialwissenschaften, 2009); Niklas Luhmann, "Sinn als Grundbegriff der Soziologie," in *Theorie der Gesellschaft oder Sozialtechnologie: Was leistet die Systemforschung*, by Jürgen Habermas and Niklas Luhmann, ed. Karl Markus Michel, Auflage: 2. (Frankfurt a.M.: Suhrkamp, 1974) (Originally published in 1971).
[40] Niklas Luhmann, "Generalized Media and the Problem of Contingency," in *Explorations in General Theory in Social Science: Essays in Honor of Talcott Parsons*, ed. Jan J Loubser et al., vol. 2, 2 vols. (New York, NY: Free Press, 1976).
[41] Correspondence from Niklas Luhmann to Hans Blumenberg, 29 October 1969, and February 1970, HS.2003.0001 Deutsches Literaturarchiv, Marbach am Neckar.

pretended to offer something like a "theory" of contingency, Luhmann's systems theory presented the most ambitious attempt since Leibniz's *Theodicy* to construct a grand theoretical system on the basis of contingency. The systematic position of contingency in his work makes it an excellent test case for observing the evolving dynamics of *Kontingenzsinn*. Perhaps most importantly, one of the most notable qualities of Luhmann's theory is the stunningly diverse array of intellectual traditions that fed into it. Virtually all of them, moreover, from phenomenology and theology to cybernetics and decision theory, from classical sociology, political and legal science to complexity theory, already harbored some of the central elements of *Kontingenzsinn*. And so well before Luhmann encountered Blumenberg's work, before contingency first appeared in Luhmann's writings in 1966-67, some hidden principle seemed to attract a diverse set of thinkers and conceptual elements with little in common *except* that they spoke to one another in the medium of *Kontingenzsinn*. In other words, Luhmann's systems theory presents an optimal test case for observing the "selective affinity" of *Kontingenzsinn* in action.

Elements of Kontingenzsinn

So far I have only vaguely alluded to some of the "elements" of this rarefied thing I have been calling *Kontingenzsinn*, without, however, offering a concise definition. Readers looking for one in this dissertation will be disappointed. Although it encompasses stock definitions like "that which is also otherwise possible," or that which is "neither necessary nor impossible," the wider scope of *Kontingenzsinn* can only be exhibited in the historical movement by which its various elements crystallize into recognizable patterns. This interactive and self-organizing dynamic is what I will refer to as the "selective affinity" of *Kontignezsinn*.

To help frame and give a provisional unity to this field of sense, this dissertation emphasizes the unique role of Leibniz's *Theodicy* in the emergence of modern *Kontingenzsinn*. The *Theodicy* functioned like a prism refracting the white light of medieval theological *Kontingenzsinn* into its modern, technicolored spectrum. It transformed the "ontotheological" notion of contingency inherited from the Middle Ages into the basis of a theory of rationality, which amounted to no less than a theory of autonomous, anonymous, pluralistic, and acentric "self-organizing" systems—essentially the first modern theory of complexity. Leibniz's solution to the problem of evil, which aimed to square the circle of freedom and determination, purposive voluntarism and automatic, impersonal order, was thus as technical and mathematical as it was moral and political. Leibniz thereby bequeathed to modernity the legacy of a congenitally ambivalent *Kontingenzsinn*, torn between its ontotheological and the complexity-theoretical dimensions, between the moral and the technical. Much of the history of modern *Kontingenzsinn*, and thus the unique significance and conditions of possibility of Blumenberg and Luhmann's reconstructions, owes to the unique pathos and logos of its ambiguity.

Due to the complexity of this aspect of my argument, I reserve a more detailed discussion of the "Elements of Modern *Kontingenzsinn*" for a brief supplement following this introduction. In the remainder of the introduction I will now present a provisional sketch of methodological approach I call "selective affinity," before concluding with a brief outline of the dissertation.

» 3. Selective Affinities and the History of Ideas «
A Methodological Note

I do not want to suggest that Luhmann is simply a latter day Leibnizian, or that Leibniz is the ultimate progenitor of modern rationality. For all his importance to my argument, this dissertation is not a reception history of Leibniz. Leibniz is qa symbolic anchor that stands for that diffuse

intellectual tangle I have been calling modern *Kontingenzsinn*. For the latter is in most respects the true subject of *A Selective Affinity*. While the dissertation is roughly organized around a chronological reconstruction of the genesis of Luhmann's systems theory, it is more interested in elucidating the emerging contours of *Kontingenzsinn* as a lens with which to think about the nature of modern rationality than it is with presenting an intellectual biography. That the latter happens to be a means for doing so is an added bonus. Luhmann's development is a kind of case study for witnessing the emergence and function of *Kontingenzsinn*.

This all might sound a bit unusual. To clarify, a brief reflection on this dissertation's methodology is in order.

First of all, this is neither a history of *Kontingenz* as a "unit idea" in the sense of Arthur Lovejoy, nor a conceptual history. Such histories already exist in German, and though I make use of them, I by no means wish to repeat them. And though I emphasize and aim to explain the sudden surge in the use of the term after World War Two, my interest is not limited to its express appearances. I take the spike in its use as expressive of a deeper reorientation, which is why I describe the subject of the dissertation as "*Kontingenzsinn*." It gathers that widely dispersed collection of elements, from concepts and experiences like possibilism, selectivity, uncertainty, nihilism, fate, recalcitrance, and self-organization, to disciplinary formations like cybernetics, phenomenology, law, and theology; logics of purposiveness, responsibility, abstraction; emotions of guilt, anxiety; problems of order, freedom, and sin…

A Selective Affinity also does not claim to have discovered some cryptic or esoteric tradition, or some kind of totalized discourse or episteme governing an entire historical epoch. It aims instead to reveal something even more rarefied and dispersed. Not as unified as a "grammar" or a "logic" binding together disparate ideas, it resembles something closer to the notion of "force fields" articulated by Walter Benjamin, invoked by Theodor W. Adorno, and appropriated for intellectual history by Martin Jay. A more dynamic alternative to Wittgenstein's oft-cited metaphor of "family resemblances," the idea of "force fields" served Adorno as a means, in Jay's terms, "to suggest a nontotalized juxtaposition of changing elements, a dynamic interplay of attractions and aversions, without a generative first principle, common denominator, or inherent essence."[42]

Instead of the force field metaphor, however, I have opted to describe the gathering of the elements of *Kontingenzsinn* within history a "selective affinity." The metaphor, of course, is a play on the notion of "elective affinities" [*Wahlverwandtschaften*] known today from Goethe's novel of that name—and to which Benjamin also just happened to dedicate one of his longer and more academic essays.[43] In Goethe's 1809 novel, the idea of "elective affinities" referred to the mysterious forces that dissolve and recombine relationships between human individuals. In the novel, the encounter of two couples results in the sudden shift in attraction between the four individuals, dissolving the original two relationships and recombining them into two new pairs. While this sense of affinity can take on the sense of fatefulness, the adjective "elective" suggests a free voluntaristic choice [*Wahl*] immanent to each element.

The notion was not original to Goethe, however. As recent commentators have pointed out, Goethe appropriated the metaphor from late eighteenth-century chemistry, which had, in turn, adapted it from earlier alchemical notions.[44] The metaphor's own history, in fact, bears a distinctive

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[42] Martin Jay, *Force Fields: Between Intellectual History and Cultural Critique* (New York: Routledge, 1993), 2.

[43] Johann Wolfgang von Goethe, *Die Wahlverwandtschaften* (Severus Verlag, 2014); Walter Benjamin, "Goethe's Elective Affinities," in *Walter Benjamin: Selected Writings, Volume 1: 1913-1926*, ed. Marcus Bullock and Michael W. Jennings (Cambridge, Mass.: Belknap Press, 2004), 297–360.

[44] Michael Löwy, *Redemption and Utopia: Jewish Libertarian Thought in Central Europe: A Study in Elective Affinity* (Stanford, CA: Stanford University Press, 1992); Michael Löwy, "Le Concept d'affinité Élective Chez Max Weber," *Archives de Sciences Sociales Des Religions* 49, no. 127 (2004): 93–103; Holger Ihle, *Goethes Wahlverwandtschaften: Die chemische Gleichnisrede -*

'affinity' to the story being told in this dissertation. Like the *Theodicy*, the notion of elective affinity, in its various guises essentially aimed to offer an account of spontaneous and harmonious self-organization in terms of the actualization of possibilities.[45] "Organization" or "order" thus amounted to processes by which the immanent possibilities of different elements become actualized through contact with one another. Except unlike the *Theodicy*, the "harmony" achieved through this process of actualization is by no means "pre-established." These possibilities don't become "activated" until drawn into proximity with their complementary elements—a contingent event that might never occur. As Michael Löwy has described the action of elective affinities, "[t]ransforming potentiality into activity, making the analogy dynamic, having it evolve towards active interaction—this depends upon concrete historical circumstances…"[46]

For these reasons, Weber too used the metaphor of "elective affinity," most notably in *The Protestant Ethic and the Spirit of Capitalism* to describe the way in which heterogeneous complexes of ideas and cultural values collided in history in a way that could appear both accidental and fateful at the same time.[47] Numerous commentators have drawn attention to its significance, with one going so far as to claim that, "For understanding Weber's idea of history and thus the logic of his social science no term is more crucial than 'elective affinity.'"[48] But because Weber never explicitly defined the concept with the same precision as some of his other methodological tools, its exact meaning has been a source of controversy among Weber scholars. For some it served as a means to articulate the concept of ideology by pointing to the "affinity" between specific ideas and "interests" and "motives."[49] While some version of this is clearly evident in *Protestant Ethic*, it risks rendering "elective affinity" a causal concept. As one commentator has explained it, "Elective affinities cannot readily be understood in the standard terms of cause and effect. Rather, pursuing the chemical metaphor, the elements form bonds and together produce a new substance because of the characteristics of each element, and this is better understood as a kind of 'emergence,' a term with considerable sociological resonance."[50]

Inhalt und Funktion (GRIN Verlag, 2003); Andrew M. McKinnon, "Elective Affinities of the Protestant Ethic: Weber and the Chemistry of Capitalism," *Sociological Theory* 28, no. 1 (2010): 108–26; Christian P. Weber, "Elective Affinities / Wahlverwandtschaften: The Career of a Metaphor," in *Fact and Fiction: Literary and Scientific Cultures in Germany and Britain*, ed. Christine Lehleiter (University of Toronto Press, 2016), 97–129.

[45] "Goethe seems to suggest that the constant decomposition and (re-)composition of bodies entertain 'elective affinities' because all matter and all material life forms on earth are intrinsically driven by the quest to restore this previous harmony… 'Elective affinity' means for him essentially the expression of an essential (or even existen-tial) longing and yearning in all material 'elements' that were once violently disassociated and forced to recombine in less harmonious compounds during the natural history of the earth." Weber, "Elective Affinities / Wahlverwandtschaften: The Career of a Metaphor," 107.

[46] Löwy, *Redemption and Utopia*, 11.

[47] Richard Herbert Howe, "Max Weber's Elective Affinities: Sociology Within the Bounds of Pure Reason," *American Journal of Sociology* 84, no. 2 (1978): 366–85; McKinnon, "Elective Affinities of the Protestant Ethic: Weber and the Chemistry of Capitalism"; Weber, "Elective Affinities / Wahlverwandtschaften: The Career of a Metaphor"; Löwy, "Le Concept d'affinité Élective Chez Max Weber."

[48] "In the light of the virtual—the order of the possible—elective affinity stands out as a source through which the order of Weber's discourse becomes just visible within his own work as the latent structure of his thought." Howe, "Max Weber's Elective Affinities: Sociology Within the Bounds of Pure Reason," 366, 367.

[49] See the editor's introduction to Max Weber, *From Max Weber: Essays in Sociology*, ed. Hans Heinrich Gerth and C. Wright Mills (New York: Oxford University Press, Galaxy, 1958), 62.

[50] McKinnon, "Elective Affinities of the Protestant Ethic: Weber and the Chemistry of Capitalism," 123; Or, as Löwy puts it, the notion of elective affinity is "a very special kind of dialectical relationship that develops between two social or cultural configurations, one that cannot be reduced to direct causality or to 'influences' in the traditional sense." Instead, "the relationship consists of a convergence, a mutual attraction, an active confluence, a combination that can go as far as a fusion." Löwy, *Redemption and Utopia*, 6.

Central to its significance for Weber—and to my own investigation of *Kontingenzsinn*—is that the concept of "elective affinities" aims to capture the relationship of heterogeneous elements in terms of an underlying structure of *meaning*. Weber, whose most impactful methodological innovations centered on a theory of social action that synthesized the interpretation of subjective meaning with explanations of objective causality, often referred to them as *"Sinnaffinitäten*." It is in this medium of meaning, as a thicket of possible actions and experiences vying for existence, that the intelligible manifests in history—precisely through, and not against contingency. As one commentator put it, for Weber, historical "actors' choices of possible actions are given by the elective affinities of their universe of meanings. The order of the actual, the course of history and the structure of society, is to be read from this order of the possible. The task of Weber's science is to portray its changing constellations."[51] The task of *A Selective Affinity*, by contrast, is not so much to understand the possible choices of the actor Niklas Luhmann, but rather to reconstruct his systems theory's conditions of possibility by following the threads of modern *Kontingenzsinn* through the labyrinth of intellectual history.

» 4. Outline of the Dissertation «

The "Supplement" immediately following this introduction sets up the rest of the dissertation by introducing the key elements in the history of *Kontingenzsinn*, with an emphasis on the *Theodicy*. After a brief biographical sketch of Niklas Luhmann's life and career in Chapter One, the following two chapters pivot away from Luhmann to prepare the other ingredients essential to his arrival. Chapter Two offers an account of Hans Blumenberg's early contributions to modern *Kontingenzsinn* up through his 1966 *Legitimacy of the Modern Age*, again focusing on the elements which would become the most significant to Luhmann's later reception. Chapter Three then leaps across the Atlantic to review the major fault lines running through social scientific functionalism in the United States and West Germany in the 1950's and 1960's. This chapter emphasizes the tight connection between methodological controversies and the politicization of concepts of reality. This discussion prepares my subsequent exposition of Luhmann's reconstructed sociological functionalism in Chapter Four. Luhmann's radical functionalism attempted to address the shortcomings of prior functionalisms by way of a critique of ontological metaphysics inspired by Husserl and Cassirer. The epilogue to this chapter then quickly recounts how Luhmann first imagined the relationship between functionalism and systems theory. Next, Chapter Five details how Luhmann began to put this revamped functionalism to work in some of his earliest studies of "formal" bureaucratic organization, criticizing Weber's hierarchical "command" model for its lack of complexity and its reduction of rationality to instrumental action. In its place Luhmann emphasized the role of abstractive "generalizations" as a means of coordinating human actions into relatively stable yet highly elastic systems. Chapters Six and Seven then take another detour away from Luhmann in order to unravel the dynamics of the "voluntarism/automatism antinomy." Chapter Six begins by tracing its manifestations in legal and administrative theory backwards from the 1960's, through the German Constitutional debates of the 1950's and 1920's, through the foundations of nineteenth-century jurisprudence, to the rise of Cameralism and positive law in the seventeenth and eighteenth centuries. Chapter Seven then picks up a corollary thread passing in the opposite direction: the semantics of rationality as "selectivity." This notion was gradually mobilized to overcome this antinomy, beginning with the reception of Darwin in psychology and physiology in the late nineteenth century, and progressing to Herbert Simon's theories of rational decision-making and

[51] Howe, "Max Weber's Elective Affinities: Sociology Within the Bounds of Pure Reason," 382–83.

Ross Ashby's theory of requisite variety. Chapter Eight returns to Niklas Luhmann, unpacking his 1966 intervention in a debate over the prospects of automating legal-decision making in public administrations. It was in this context that Luhmann's alternative complexity-theoretical account of systems rationality began to crystallize. Chapter Nine picks up at the moment in late 1966-early 1967 when Luhmann first began to cite Blumenberg and to include the concept of "the contingency of the world" as a supplement to his prior emphasis on complexity. The chapter explains how Luhmann's reading of Blumenberg's "Lifeworld and Technization" was facilitated by the "selective affinity" of *Kontingenzsinn* dating back to Leibniz's *Theodicy*. Chapter Ten then concludes with a reading of the famous debate between Luhmann and Habermas in 1971, which centered on Luhmann's recently developed theory of meaning. Luhmann mobilized this concept of meaning, which was virtually coextensive with his understanding of contingency, as a means to position himself as the heir of Leibniz the hypermodern theorist of complexity, with Habermas heir to the "old European" ontotheological aspect of Leibniz's metaphysics. Nevertheless, I suggest in the conclusion, Luhmann's attempt to sever these two dimensions of *Kontingenzsinn* never fully succeeded. The only path out of the labyrinth of ontological metaphysics, it turned out, was to build a new one.

SUPPLEMENT
LEIBNIZ'S LABYRINTH
THE ELEMENTS OF MODERN *KONTINGENZSINN*

> In the second of his three essays from 1919 on Leonardo da Vinci, Paul Valery makes one of his numerous open—or, more frequently, veiled—volleys against Pascal; he contrasts his hero Leonardo with the dark folly of a thinker who had no feeling for art and was merely possessed by the risk of the wager on the absolute, and to whom nature was nothing but the gaping abyss of the infinite along the path to his salvation. Of the thinker and technician Leonardo, by contrast, he says: "Pas d'abîme ouvert à sa droite. Un abîme le ferait songer à un pont." ["No abyss opens to his right. An abyss would make him think of a bridge"]… The image of the abyss provides the metaphor: Pascal's type of eye is fixated on the vertical dimension of the image, in which the dark inscrutability of the abyss below only entrances our gaze for the sake of preparing thought for a chance at the opposed direction of transcendence above; an eye like Leonardo's spontaneously perceives the image horizontally, and thus the sees chance to connect both ledges of the abyss and thereby to bridge the obstacle—or even to view the emptiness of the abyss as a free space for testing a mechanical bird.
>
> Hans Blumenberg, "Lifeworld and Technization"[1]

» 1. The Contingent Generation «
The Politics and Pathos of *Kontingenz* in the Federal Republic

One of the central claims of this dissertation is that the rapid take-off of *Kontingenzsinn* in postwar West Germany had much to do with the specific pathos it carried for members of the so-called "skeptical" or "Flakhelfer generation," those who came of age roughly around the end of World War II—old enough to have experienced and understood National Socialism, but too young to have been complicit in it.[2] With the exception of the unique case of Blumenberg, born in 1920, most of the other major proponents of *Kontingenzsinn* were born in the surprisingly narrow window between 1926-1930, with a few slight outliers. In addition to Luhmann, they included many of the most influential philosophers, social theorists, and theologians of the "first" Federal Republic, above all Odo Marquard (1928-2015), Hermann Lübbe (b. 1926), Robert Spaemann (1927-2018), Wolfhart Pannenberg (1928-2014), Dieter Henrich (b. 1927), and even, though to a lesser degree, Jürgen Habermas (b. 1929).[3] A few outliers, such as Reinhard Koselleck (1923-2006), Alexander Kluge (b.

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[1] Hans Blumenberg, "Lebenswelt und Technisierung unter Aspekten der Phänomenologie," in *Wirklichkeiten in denen wir leben: Aufsätze und eine Rede* (Stuttgart: P. Reclam, 1981), 7.

[2] Helmut Schelsky, *Die skeptische generation: eine Soziologie der deutschen Jugend.* (Dusseldorf: E. Diederich, 1957); A. Dirk Moses, *German Intellectuals and the Nazi Past* (Cambridge: Cambridge University Press, 2009).

[3] For a sample, see Odo Marquard, *In Defense of the Accidental*, trans. Robert M. Wallace (New York: Oxford University Press, 1991); Hermann Lübbe, "Kontingenzerfahrung und Kontingenzbewältigung," in *Kontingenz*, ed. Gerhard von Graevenitz, Odo Marquard, and Matthias Christen, vol. 17, Poetik und Hermeneutik (München: Fink, Wilhelm, 1998); Hermann Lübbe, *Religion nach der Aufklärung* (Graz: Styria, 1986); Robert Spaemann, "Funktionale Religionsbegründung und Religion," in *Die Religiöse Dimension der Gesellschaft: Religion und ihre Theorien*, ed. Peter Koslowski (Mohr Siebeck, 1985); Wolfhart Pannenberg, "Die Kontingenz der geschöpflichen Wirklichkeit," in *Beiträge zur systematischen Theologie*, vol. 2 (Vandenhoeck & Ruprecht, 1999); D. Henrich, "Hegels Theorie über den Zufall," *Kant-Studien* 50 (January 1, 1958);

1932), Karl-Otto Apel (1922-2017) and Albrecht Wellmer (1933-2018), certainly shared their generation's general 'sense of contingency,' but in contrast to their aforementioned peers, they rarely if ever explicitly invoked the term *Kontingenz*.[4]

What stands out from this list is the overrepresentation of members of Joachim Ritter's Münster School—Marquard, Lübbe, and Spaemann—all of whom became associated with the neoconservative movement that emerged during the so-called "*Tendenzwende*" of the 1970's-1980's. Though many would dispute the label of "neoconservative," opting instead for the milder "liberal-conservative," by the 1970's their political affiliations were unabashedly Christian-Democratic and expressly hostile to the emancipatory spirit of 1968.[5] Like most conservatives of the era, they belonged to that loose cohort of intellectuals Dirk Moses has called "integrative republicans" and "German Germans," distinguished by their overt suspicion shading into hostility to the continued demands for *Vergangenheitsbewältigung,* the term used since the 1950's for the activity of facing up to and "mastering" the Nazi past. Two of the tropes most closely identified with the Ritter School, after all, derived their rhetorical power from precisely this tendency: "compensation" [*Kompensation*] and "unburdening" [*Entlastung*].[6]

Was it an accident then that one of Hermann Lübbe's most influential and enduring neologisms, the typically Teutonic mouthful "*Kontingenzbewältigungspraxis*" (the "praxis of reckoning with contingency") was evocative of *Vergangenheitsbewältigung*? And it might certainly raise some eyebrows when considering how such a cumbersome academic term could possibly enter wider, public political discourse. For no less a figure than Helmut Kohl (1927-2017), the Christian Democratic Chancellor of the Federal Republic from 1982-1998, allegedly made public reference to Lübbe's *Kontingenzbewältigung*.[7] A member of the skeptical generation, Kohl was no stranger to the *Kontingenzsinn* expounded by his academic peers. After all, in one of his most famous phrases, Kohl

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Jürgen Habermas, *Legitimation Crisis* (Boston: Beacon Press, 1975); Jürgen Habermas, *Truth And Justification* (MIT Press, 2005).

[4] Reinhart Koselleck, "Vom Sinn und Unsinn der Geschichte," in *Vom Sinn und Unsinn der Geschichte: Aufsätze und Vorträge aus vier Jahrzehnten*, ed. Carsten Dutt (Berlin: Suhrkamp, 2014); Reinhart Koselleck, "Chance as Motivational Trace in Historical Writing," in *Futures Past: On the Semantics of Historical Time*, trans. Keith Tribe (New York: Columbia University Press, 2004), 115–27; Albrecht Wellmer, *Endgames: The Irreconcilable Nature of Modernity: Essays and Lectures* (MIT Press, 2000).

[5] Jerry Z. Muller, "German Neo-Conservatism, ca. 1968-1985: Hermann Lübbe and Others," in *German Ideologies since 1945: Studies in the Political Thought and Culture of the Bonn Republic*, ed. Jan-Werner Müller (New York: Palgrave Macmillan, 2003); Jens Hacke, *Philosophie der Bürgerlichkeit: die liberalkonservative Begründung der Bundesrepublik* (Göttingen: Vandenhoeck & Ruprecht, 2006); Jürgen Habermas, "Neoconservative Cultural Criticism in the United States and West Germany," in *The New Conservatism: Cultural Criticism and the Historians' Debate*, trans. Shierry Weber Nicholsen (Cambridge, Mass: MIT Press, 1989); Jürgen Habermas, "The New Obscurity: The Crisis of the Welfare State and the Exhaustion of Utopian Energies," in *The New Conservatism: Cultural Criticism and the Historians' Debate*, trans. Shierry Weber Nicholsen (Cambridge, Mass: MIT Press, 1989).

[6] See, for example, Odo Marquard, "Competence in Compensating for Incompetence? (On the Competence and Incompetence of Philosophy)," in *Farewell to Matters of Principle: Philosophical Studies*, Odéon (New York: Oxford University Press, 1989); Odo Marquard, "Indicted and Unburdened Man in Eighteenth-Century Philosophy," in *Farewell to Matters of Principle: Philosophical Studies*, Odéon (New York: Oxford University Press, 1989); Odo Marquard, "Unburdenings: Theodicy Motives in Modern Philosophy," in *In Defense of the Accidental*, trans. Robert M. Wallace (New York: Oxford University Press, 1991); Odo Marquard, *Philosophie des Stattdessen: Studien*, Universal-Bibliothek 18049 (Stuttgart: Reclam, 2001).

[7] "At least it was reported to me," Luhmann qualified in a late interview. I have been unable to verify the accuracy of this claim. Niklas Luhmann, "'That's not my problem' - Niklas Luhmann im Interview mit Klaus Taschwer," in *Was tun, Herr Luhmann?: vorletze Gespräche mit Niklas Luhmann*, ed. Wolfgang. Hagen and Dirk Baecker (Berlin: Kulturverlag Kadmos, 2009), 18.

spoke of "*die Gnade der spätigen Geburt*"—"the grace of a late birth"—of his and every subsequent generation who did not have to bear the burden of guilt for the evil of National Socialism.

There were moments then, that *Kontingenz* could condense into an evasion of the difficult question of guilt, an apotropaic charm which for a certain strand of conservative intellectuals could ward off the ghosts of Nazism's victims.[8] They rejected what they perceived as the sanctimonious, judgmental, and self-flagellating moralism of the Left by way of an equally sanctimonious condemnation of the languages of judgment and emancipation, summed up in what Marquard, for instance, called "overtribunalization."[9] A common response followed Carl Schmitt in declaring the essence of the "political" to be beyond morality and law. As Jan Werner-Müller puts it, these intellectuals felt that the "political simply could not be expunged from the modern world—and its moralization or juridification would only exacerbate its inevitably evil aspects."[10] Hence along with members of the Ritter School, pupils of Schmitt like Reinhard Koselleck "persisted in deploring" every instance of "the 'juridification' of German politics."[11]

Of course, it was hardly necessary that *Kontingenz* would come assume such conservative affiliations. From a purely logical and historical perspective, *Kontingenz* is indifferent to the politics of Left and Right. After all, the mobilization of the concept of contingency as a signifier of progressive left-wing hopes has a long and venerable tradition of its own.[12] Theodor W. Adorno, for example, saw in contingency a vital counter to every instance of oppression, an instance of his famous insistence on the virtues of "non-identity" and the "preponderance of the object" against the overweening imperialism of subjective reason.[13] "Contingency is the Menetekel of domination," he wrote in his critique of Edmund Husserl's phenomenology, referring to the biblical "writing on the wall" of the book of Daniel, which portended the fall of Babylonian King Belshazzar. "No matter where contingency arises, it gives the lie to the universal mastery of spirit, its identity with matter… The threat of contingency is simply advanced by the pure *a priori* which is its enemy and should allay it."[14] Similar sentiments could be detected among a wide range of thinkers associated with the Frankfurt School and Western Marxism more broadly found in the closely associated concept of possibility [*Möglichkeit*] a (sometimes messianic) reservoir of hope for another, better world.[15]

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[8] Moses, *German Intellectuals and the Nazi Past*; Barbara Wolbring, "Nationales Stigma und persönliche Schuld: Die Debatte über Kollektivschuld in der Nachkriegszeit," *Historische Zeitschrift* 289, no. 2 (January 2009).

[9] Marquard, "Indicted and Unburdened Man in Eighteenth-Century Philosophy," 46–49.

[10] Jan-Werner Müller, *A Dangerous Mind: Carl Schmitt in Post-War European Thought* (New Haven: Yale University Press, 2003), 35.

[11] Müller, 64.

[12] Slavoj Zizek, Ernesto Laclau, and Judith Butler, *Contingency, Hegemony, Universality: Contemporary Dialogues on the Left*, Second Edition edition (London; New York: Verso, 2011).

[13] Theodor W. Adorno, "Subject and Object," in *Critical Models: Interventions and Catchwords*, ed. Henry W. Pickford, European Perspectives (New York: Columbia University Press, 2005), 254; Theodor W. Adorno, *Negative Dialectics*, 2 edition (New York: Bloomsbury Academic, 1981); Norbert Bolz et al., *Adorno: The Possibility of the Impossible, Vol. 1*, Bilingual edition (New York, NY: Lukas & Sternberg, 2003).

[14] Theodor W. Adorno, *Against Epistemology: A Metacritique*, trans. Willis Domingo, 1 edition (Cambridge ; Malden, MA: Polity, 2013), 83.

[15] On possibility in Adorno, see Deborah Cook, "From the Actual to the Possible: Nonidentity Thinking," *Constellations* 12, no. 1 (March 1, 2005): 21–35; Iain Macdonald, "'What Is, Is More than It Is': Adorno and Heidegger on the Priority of Possibility," *International Journal of Philosophical Studies* 19, no. 1 (February 2011): 31–57; On the messianic dimensions of the concept of possibility among German Jewish thinkers more broadly, see, for example, Ernst Bloch, *The Principle of Hope*, trans. Neville Plaice, Stephen Plaice, and Paul Knight, Studies in Contemporary German Social Thought (Cambridge, Mass: MIT Press, 1986); Michael Löwy, *Redemption and Utopia: Jewish Libertarian Thought in Central Europe: A Study in Elective Affinity* (Stanford, CA: Stanford University Press, 1992); Anson Rabinbach, "Between Enlightenment and

But it was precisely this "utopian" version of *Kontingenz* at which so many balked. No one did more to align *Kontingenzsinn* with this neoconservative motif than the philosopher of skepticism, Odo Marquard. It would not be a stretch to assert that Marquard's claim to fame resulted from his distillation, politicization and popularization of some of the key elements of Blumenberg's articulation of *Kontingenzsinn*. Marquard's most lasting argument in this respect was that modernity had been weighed down by "theodicy motives," which he framed as the primary culprit responsible for the Enlightenment "'tribunalization' of the reality of modern life" and the corollary "boom in the demand for justification"—a jab against Jürgen Habermas.[16] This found expression, he averred, in the modern interpretation of reality as *Beliebigkeitskontingenz*, "contingency as arbitrariness." This notion, which Marquard also described as "utopian" or "Promethean" contingency, recognized in the bare facticity of the world an essential fungibility, and thus the opportunity to remake and engineer it. Like Koselleck's Enlightenment moralism, Marquard saw in this utopian sense of contingency the hubris by which humanity assumed the position of the God of creation, and he deemed it responsible for the bulk of modernity's most gruesome catastrophes. This, he warned, was the true legacy of modern "theodicy motives."[17]

Marquard's remedy to the modernist disasters of utopian contingency took the form of an enjoinder to embrace contingency as fate, and stoically accept the limits it posed to human ambition.[18] From the perspective of this "*Schicksalskontingenz*," reality appeared primarily in its "*Unverfügbarkeit*"—another one of this cohort's favorite words—roughly translated as "that over which we have no power of disposition," or more tersely, as "recalcitrance."[19] "Fate" thus emphasized the dimension of contingency as "facticity," the naked *that it is* of the things given in the world.[20] Rather than a mark of reality's openness to revision, *Schicksalskontingenz* referred to the most obdurate aspects of the human condition, above all, its finitude.

» 2. Ontotheology and Creationist Metaphysics «

Luhmann too expressed reservations towards what he perceived as an overly "juridifed" approach to social order and rationality—although he disagreed sharply with the Schmittian view that subordinated law to politics. Compared to those of their compatriots, Blumenberg and Luhmann's contributions to *Kontingenzsinn* were far more ambivalent, capacious, and ironic. Their mercurial political affiliations reflected the ambiguity they attributed to *Kontingenz*. Marquard's notion was considerably more one-sided: his political-anthropological presentation of contingency emphasized what Heidegger would call its "ontotheological" dimensions: that is, the notion of contingency as facticity, as the problem of the "grounds" of being or existence.

Apocalypse: Benjamin, Bloch and Modern German Jewish Messianism," *New German Critique*, no. 34 (1985): 78–124; Martin Jay, *Marxism and Totality: The Adventures of a Concept from Lukács to Habermas* (University of California Press, 1984).

[16] Marquard, "Unburdenings: Theodicy Motives in Modern Philosophy," 9; Similar arguments can also be found in Marquard, "Indicted and Unburdened Man in Eighteenth-Century Philosophy"; for a recent discussion, see Willem Styfhals, "Modernity as Theodicy: Odo Marquard Reads Hans Blumenberg's The Legitimacy of the Modern Age," *Journal of the History of Ideas* 80, no. 1 (2019): 113–31.

[17] Marquard, "Unburdenings: Theodicy Motives in Modern Philosophy," 15.

[18] For a conceptual history of Schicksal, see Franziska Rehlinghaus, *Die Semantik des Schicksals: zur Relevanz des Unverfügbaren zwischen Aufklärung und Erstem Weltkrieg* (Vandenhoeck & Ruprecht, 2015).

[19] Reinhart Koselleck, "On the Disposibility of History," in *Futures Past: On the Semantics of Historical Time*, trans. Keith Tribe (New York: Columbia University Press, 2004).

[20] Franz Josef Wetz, *Das nackte Dass. Zur Frage der Faktizität* (Pfullingen: Neske Stuttgart, 1990).

This dissertation argues, however, that the "ontotheological" dimension of *Kontingenz*, which encompasses both of Marquard's meanings, has been overplayed to the detriment of a second dimension that was essential to making Luhmann's synthesis possible: namely, a concept of rational order and organization rooted in a dynamic relationship between selectivity and possibility. Both found their paradigmatic modern expression in Leibniz's *Theodicy*.

I use "ontotheology" here to refer to the creationist metaphysics that made the existence of the world causally dependent on its having been created *ex nihilo* by a transcendent will. Resting on the basic distinction of Western metaphysics between being and non-being, ontotheological metaphysics latently contained the problem of "grounds" of existence, that is, what separates being from non-being. This manifested in what Heidegger called the "fundamental question of metaphysics," or the "*Seinsgrundfrage*" ("fundamental question of being"): why is there something rather than nothing? What are the grounds of existence, if any? Leibniz was among the first since the Presocratics to revisit this question, and his reply centered on one of the core elements of his metaphysics, his famous "Principle of Sufficient Reason" (PoSR). In one of its more common formulations it read, "nothing is without a ground," where the concept of "ground" meant both "causes" and "reasons." These, in turn, led back to the ultimate origin of all existence in the will of God. Leibniz would refer to existence as contingent because it depended on God's will. Unlike analytic, a priori truths of reason, there was no necessity in the existence of things, and thus no necessity in claims about empirical existence. But existent things, and existence as such, not only have causes for their existence, but *reasons*. In other words, the contingency of existence entailed not only its dependence on God's will, but also its fundamental intelligibility.

Leibniz steadfastly tried to steer between Spinozist determinism and nominalist voluntarism. To avoid Spinozism, Leibniz had to insist that the existence of the world was not necessary, that is, that it was contingent on God's free choice to create it. But to avoid radical voluntarism, he had to find a way to guarantee the rational order and harmony of the created world. It was only later, in the *Monadology* and especially the *Theodicy*, that Leibniz's "solution" to the ontotheological problem of grounds found its consummate expression, and thereby also procured an alternative sense of contingency that would become crucial to Luhmann's reception of and contribution to modern *Kontingenzsinn*: contingency as alternativity, as the visibility of other possibilities. And this meant, against Spinoza, recovering the independent being of "possibility" as ontologically distinct from "actuality," such that every "actual" existence had to be understood as a "selection" from some wider horizon of possibilities.

Contingency did not always involve this difference between possibility and actuality. It actually arose only at a relatively late stage in the term's history. Etymologically speaking, "contingency" actually entered Western philosophical discourse meaning something much closer to the contemporary notion of "possibility." The Latin *contingens* was originally a translation of Aristotle's two terms for possibility, *endechomenon* and *dynaton/dynamis*. But the modern notion of *Kontingenz* also encompasses several other Aristotelian terms, *tyche*, *automaton*, and *symbanein*, each of which can roughly be translated as some variant of "chance," "accident," or "coincidence": in German, "*Zufall*." To make sense of Leibniz's unique notion of possibility and contingency in the *Theodicy*, and understand its role in the argument of this dissertation, it is first necessary briefly to review the complex conceptual history that produced this modern understanding of contingency.[21]

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[21] Heinrich Schepers, "Zum Problem der Kontingenz bei Leibniz: Die beste der möglichen Welten," in *Collegium Philosophicum ; Studien Joachim Ritter zum 60. Geburtstag*, ed. Ernst-Wolfgang Böckenförde (Schwabe & Co Verlag, 1965); Heinrich Schepers, "Möglichkeit und Kontingenz : zur Geschichte der philosophischen Terminologie vor Leibniz," in *Leibniz: Wege zu seiner reifen Metaphysik* (Berlin: Akademie Verlag, 2014); Peter Vogt, *Kontingenz und Zufall: Eine Ideen- und Begriffsgeschichte. Mit einem Vorwort von Hans Joas* (Walter de Gruyter, 2011).

Like Leibniz's anti-Spinozist insistence on the distinction between possibility and actuality, Aristotle formulated his notions of *endechomenon* and *dynaton* to contest the position of the "Megarian" philosophers, who argued that, since anything that does not become actual is thereby considered impossible, everything actual is therefore also necessary. Aristotle, by contrast, insisted that it nevertheless made sense to distinguish possibility, necessity and actuality from one another, such that it would make sense to speak of "unfulfilled possibilities." Aristotle occasionally used *dynaton* interchangeably with *endechomenon*: Both appeared, for example, in Aristotle's famous discussion of future conditionals in the *Hermeneutics*, which considered the challenge posed to the principle of the excluded middle by statements about events in the future, such as "a sea battle will take place tomorrow." Such future events are indifferent to being: they can either be or not be.[22]

The idea of "unforeseen contingencies" in Aristotle's philosophy, however, belonged to that other cluster of concepts of "chance" or "coincidence." Unlike Aristotle's concepts of possibility, *tyche*, *automaton*, and *symbanein* always referred to something *actual*, not merely something possible. Each applied to chance encounters or coincidences that take place without an overarching purpose, that is, events involving efficient rather than teleological causes; events caused by the intersection of two disparate causal chains. *Tyche* and *automaton* were nevertheless distinguished primarily by the domain to which they were applied: *tyche,* to the realm of practical human action, *automaton* to the non-human world. Significantly, *tyche* was the term that the atomist Epicurus used to describe the inexplicable "swerve" of an atom in the void—later translated by Lucretius as the *clinamen*—which, by disrupting the uniformity and necessity of atoms falling eternally in parallel, led to the spontaneous formation of cosmic order without the helping hand of any overarching telos.[23] The sense captured by *tyche* and *automaton* comes close to what contemporary historians often signify when invoking "contingency," and some sociologists mean by "conjuncture."[24]

While *endechomenon* first entered medieval theology through Boethius's *Consolation of Philosophy* in the form of the Latin *contingens*, it rapidly took on some of the features of *tyche, automaton*, and *symbanein*; namely, it referred to actuality.[25] This was a result of the syncretism between Greek metaphysics and creationist theology: the possibility just as well as the actuality of the world found their ultimate ground in the being and will of God. Whereas Aristotle's *cosmos* was eternal and necessary, now the world, existence as such, could be viewed in terms of the possibility *not to be*.

The concept of *contingens* was further enriched in the Middle Ages by medieval Islamic philosophers, notably Ibn Sina (Avicenna 980-1037) and Ibn Rushd (Averroes, 1126-1198), who leveraged their superior knowledge of Plato and Aristotle to develop intricate proofs of God's existence that proved highly influential on scholastics theologians like Thomas Aquinas (1225-1274)

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[22] The two nevertheless had slightly different connotations, and usually appeared in different contexts. Presenting its classical definitions in the *Prior Analytics* and the *Hermeneutics*, Aristotle usually mobilized *endechomenon* in discussions the logical and rhetorical truth-value of propositions, where he defined it primarily in opposition to necessity. *Dynaton* or *dynamis*, by contrast, received its fullest definition in the *Physics*, where Aristotle distinguished it from actuality [*energeia*] in order to designate something more like "potentiality": I may have the potential to complete a dissertation, but I might never actualize it—perhaps due to some unforeseen contingencies. Schepers, "Möglichkeit und Kontingenz : zur Geschichte der philosophischen Terminologie vor Leibniz."

[23] Vogt, *Kontingenz und Zufall*, 160–61; Stephen Greenblatt, *The Swerve: How the World Became Modern*, Reprint edition (New York; London: W. W. Norton & Company, 2012).

[24] This connection between historians' contingency and sociological conjuncture is made explicit, for example, in William H. Sewell, *Logics of History: Social Theory and Social Transformation* (Chicago: University Of Chicago Press, 2005).

[25] Albrecht Becker-Freyseng, *Die Vorgeschichte des philosophischen Terminus "contingens": die Bedeutungen von "contingere" bei Boethius und ihr Verhältnis zu den Aristotelischen Möglichkeitsbegriffen*, Heft 7 (Heidelberg: F. Bilabel, 1938); Schepers, "Zum Problem der Kontingenz bei Leibniz: Die beste der möglichen Welten"; Schepers, "Möglichkeit und Kontingenz : zur Geschichte der philosophischen Terminologie vor Leibniz"; Vogt, *Kontingenz und Zufall*, 50.

and Duns Scotus (1266-1308). Ibn Sina developed one of the most influential arguments for the existence of God, whose necessity he derived from the contingency of worldly existence, where he importantly defined contingency as the dependence of a thing's existence on an external cause. But above all it was the late medieval nominalists, as Blumenberg argued, who played the decisive role in sharpening the question of contingency of the world, separating it for the first time from the concept of possibility. By insisting on the limitlessness of God's power, which could not be constrained by the claims of natural reason, the world's apparent order lost the traces of necessity that had characterized the Greek cosmos; the world in its order and its very existence depended on God's free choice to create *this* specific world, *rather* than another. Although the contingency of the world was a kind of possibility, specifically the possibility *not* to be, the nominalists had to distinguish it from *mere possibility* in accounting for the difference between the actual, created world and all the other possible worlds God could have created instead.[26]

» 3. A Detour through Leibniz's Labyrinth «

The nominalist provocation was the context for Leibniz's possible worlds speculation in the *Theodicy*. In the preface to that work, his first and, during his lifetime, only major published monograph, Leibniz claimed that "there are two famous labyrinths where our reason very often goes astray: one concerns the great question of the Free and the Necessary, above all in the production and the origin of Evil; the other consists in the discussion of continuity and of the indivisibles which appear to be the elements thereof, and where the consideration of the infinite must enter in." But while "the first perplexes almost all the human race, the other," "exercises philosophers only."[27] And whereas the second labyrinth would be tackled in Leibniz's monadology—the metaphysical theory that the only substances constituting the universe are extensionless, radically individualized monads—the first represented the kernel of the problem of what he called "theodicy."

The primary aim of the *Theodicy* was to account for the intelligibility and order of the visible universe without making it depend on the whims of an arbitrary will and without succumbing to freedom-sapping determinism. On the one hand, it was explicitly framed in terms of ontological metaphysics: it began with the question, why is there something rather than nothing? The *Theodicy* cut such an epochal figure, on the other hand, because it was the first comprehensive attempt to justify the totality of an existence exposed to the destabilizing element of infinity using only the resources of modern rationality. In fact, it had been the first to explicitly pose the problem of grounds as a problem of justification, given the existence of evil and suffering in the world, why is there something *rather* than nothing? Why is this world chosen *rather* than another?[28]

It was the latter version of the question that points towards the novel element of *Kontingenzsinn* in the *Theodicy*. Following the nominalists, Leibniz concurred that the world is

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[26] Hans Blumenberg, "Beiträge zum Problem der Ursprünglichkeit der Mittelalterlichscholastischen Ontologie" (Dissertation, Christian Albrechts Universität zu Kiel, 1947); Hans Blumenberg, "'Imitation of Nature': Toward a Prehistory of the Idea of the Creative Being," trans. Anna Wertz, *Qui Parle* 12, no. 1 (2000): 17–54; Schepers, "Möglichkeit und Kontingenz : zur Geschichte der philosophischen Terminologie vor Leibniz"; Pannenberg, "Die Kontingenz der geschöpflichen Wirklichkeit"; Franz Josef Wetz, "Kontingenz der Welt - ein Anachronismus?," in *Kontingenz*, ed. Gerhard von Graevenitz, Odo Marquard, and Matthias Christen, vol. 17, Poetik und Hermeneutik (München: Fink, Wilhelm, 1998), 84–88; Vogt, *Kontingenz und Zufall*, 53–57.

[27] Gottfried Wilhelm Leibniz, *Theodicy: Essays on the Goodness of God, the Freedom of Man, and the Origin of Evil*, ed. Austin Marsden Farrer (Charleston, S.C.: BiblioBazaar, 2007), 55.

[28] Heidegger explicitly emphasized the "*rather*" in the Principle of Sufficient Reason in this way in *The Principle of Reason* (Bloomington: Indiana University Press, 1996).

contingent because God selected this world out of the infinite possible worlds God *could* have created.[29] Yet for Leibniz this selection was neither inscrutable nor arbitrary, but in fact, perfectly rational: God chose this world because it is the "best of all possible worlds." God was not *causally* necessitated to choose this world, but rather only *morally* necessitated to choose it, a different kind of necessity, which, Leibniz averred, preserved God's freedom and therefore the contingency of the world. What distinguished Leibniz's argument for the cosmic optimum in the *Theodicy* from prior theological arguments was the criterion of rational optimality he deployed: this world, Leibniz assured his readers, is the best because it combines the greatest variety with the most order.

Here we encounter the uneasy intersection of Leibniz the moralist with Leibniz the mathematician, the proto-theorist of complexity.[30] Several interpreters have pointed out that, "in particular, in working on the problem of contingency, Leibniz the metaphysician was beholden to Leibniz the mathematician."[31] This was evident above all in the *Theodicy*, which was not only a grand "universal jurisprudence," but also a theory of complexity rooted in the infinitesimal logic of what Leibniz called "compossibility"—a neologism roughly meaning "compatible possibilities."[32] The mathematical connection has to do with the close connection between infinity and contingency: Leibniz considered something contingent if ascertaining its truth, the reason for its existence, required an "infinite analysis," something only perfectly computable by an infinite intelligence.[33]

Like Aristotle's *dynamis*, Leibniz considered substances, which he called "monads," to be active potentialities that strive for existence. But not every possible monad was "compatible" with every other. In fact the degree of "reality" of a possibility, Leibniz argued, is determined by its degree of compatibility with other possibilities, such that those compatible with the greatest number of other possibilities are the most "real." As Amos Funkenstein described it, "'Reality' in Leibniz's terminology means first and foremost genuine possibility."[34]And so the criterion by which God selected the "best of all possible worlds" was the one that contained the most compossible monads—a criterion determined by the infinite possible relations between all the infinitely possible monads. This solution preserved divine and human freedom, because the universe and everything in it remained *contingent*, in the sense that other "possible" monads could have been selected for existence instead. Moreover, it rooted God's "moral" freedom to choose in this infinite complexity. In Nicholas Rescher's terms, "for Leibniz the world's contingency traces back through processes of

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[29] Gottfried Wilhelm Leibniz, "On Contingency (1686)," in *Philosophical Essays*, trans. Roger Ariew and Daniel Garber (Indianapolis: Hackett Pub. Co, 1989); Schepers, "Zum Problem der Kontingenz bei Leibniz: Die beste der möglichen Welten"; Ingetrud Pape, *Tradition und Transformation der Modalität* (Hamburg: Meiner, 1966); Ingetrud Pape, "'Von den möglichen Welten' zur 'Welt des Möglichen': Leibniz in modernen Verständnis," *Studia Leibnitiana Supplementa I*, 1968, 266–87; E.M. Curley, "The Root of Contingency," in *Leibniz: A Collection of Critical Essays*, ed. Harry G. Frankfurt, 1st ed., Modern Studies in Philosophy (Garden City, N.Y: Anchor Books, 1972); Robert Merrihew Adams, "Leibniz's Theories of Contingency," in *Leibniz: Determinist, Theist, Idealist* (Oxford University Press, 1999).

[30] The latter is view of Leibniz that that has been most clearly expounded since the 1960's by Nicholas Rescher. See Nicholas Rescher, *The Philosophy of Leibniz* (Englewood Cliffs: N.J., Prentice-Hall, 1967); Nicholas Rescher, *Complexity: A Philosophical Overview*, Science and Technology Studies (New Brunswick, N.J: Transaction Publishers, 1998); Nicholas Rescher, *On Leibniz: Expanded Edition* (Pittsburgh, Pa: University of Pittsburgh Press, 2013).

[31] Schepers, "Zum Problem der Kontingenz bei Leibniz: Die beste der möglichen Welten," 349; Rescher nearly repeats Schepers verbatim: "In his doctrine of contingence, perhaps more heavily than in any other part of his philosophy, Leibniz the philosopher is indebted to Leibniz the mathematician." Rescher, *On Leibniz,* 53.

[32] Patrick Riley, *Leibniz' Universal Jurisprudence: Justice as the Charity of the Wise* (Cambridge, MA: Harvard UP, 1996).

[33] "God's operation as creator of this world, while indeed certain, is not an absolute metaphysical fact, but one whose necessity is merely moral because an infinite analysis is entailed by the infinite complexity of God's creation choice." Rescher, *On Leibniz,* 52.

[34] Amos Funkenstein, *Theology and the Scientific Imagination from the Middle Ages to the Seventeenth Century* (Princeton, N.J.: Princeton University Press, 1986), 101.

infinite complexity to the infinite complexity of God's own nature. For while God's *nature* and thereby his existence and his knowledge are metaphysically necessary features, his modus operandi as a *moral agent* rests on features that, though certain and (infinitistically) demonstrable, are nevertheless contingent because the demonstration at issue is never one of finite length."[35]

Leibniz's complexity theoretical solution, however, also meant that some amount of suffering or evil would be the inevitable byproduct of attaining such a cosmic optimum. A world without suffering was certainly thinkable—a world could consist of nothing but empty space. But it would not be as "perfect"—as complex—as a world with conscious, freely willing creatures like human beings. "Leibniz's theodicy," Blumenberg contended in *Legitimacy*, "characterizes the bad things in the world no longer in moral terms but rather in instrumental ones."[36] Around the same time, Rescher went so far as to argue that the *Theodicy* was a "technical thesis" that had no immediate relevance for "human happiness."[37] Selectively organized complexity, as a definition of rationality, justified the presence of evil as a necessary feature of even the best of all possible worlds; it dissolved the question of grounds into the functional analysis of the infinite. This would become a central feature of Luhmann's reconstructed account of modern reason as "systems rationality," and one which will help to explain its special rhetorical pathos.

» 4. Ariadne's Thread «
Selectivity and the "Voluntarism/Automatism Antinomy"

Leibniz's solution to the labyrinth of theodicy forgrounded an alternative dimension of *Kontingenzsinn* to the ontotheological problem of grounds: contingency as the relationship between actuality and a horizon of other possibilities, a dimension which emphasized the technical rationality of order rather than the question of bare facticity, the "that it is" of existence. To borrow the metaphor from Blumenberg's "Lifeworld and Technization" cited in the epigraph: to focus exclusively on the "vertical" dimension of contingency such that it appears as the groundlessness of an abyss is to overlook its "horizontal" dimension: the *visibility of other possibilities*.[38] To simplify a bit, the problem of *infinity*, of the infinite regress of causal analysis, derived from the "vertical," ontotheological problem of grounds, while the problem of *complexity* derived from the "horizontal" and "technical" problem of selectivity, the problem of order provoked by "other possibilities." The perspective of "selective affinity" shows them to be not two different concerns, but two different aspects of the same modern *Kontingenzsinn*.

It was Leibniz's signature achievement to have constructed a metaphysical apparatus that occupied the intersection of these two dimensions of contingency, facticity and 'alterity,' vertical grounds and horizontal possibilities. It was the latter dimension that made Leibniz's metaphysics into a theory of *rationality*, and not only of *reason*—of the decentered "self-organization" of reality, and not only a theory of truth as justification with recourse to reasons. And this theory of rationality, moreover, was in the same stroke the first significant modern European theory of complexity and self-organization. That is, the Leibniz who Norbert Wiener deemed the "patron saint" of cybernetics

[35] Rescher, *On Leibniz*, 62.

[36] Hans Blumenberg, *The Legitimacy of the Modern Age*, trans. Robert M. Wallace (MIT Press, 1983), 55.

[37] Rescher, *The Philosophy of Leibniz*, 19; For a critique, see Nicholas Jolley, *Leibniz*, Routledge Philosophers (London ; New York: Routledge, 2005).

[38] Blumenberg, "Lebenswelt und Technisierung unter Aspekten der Phänomenologie."

was, for the very same reason, the first modern philosopher of *Kontingenzsinn*.[39] Luhmann's reception and development of *Kontingenzsinn* at the intersection of German philosophy and modern theories of complexity can only be explained by keeping in mind both moments and the tension between them.

But there is hardly a straight arrow from Leibniz to Luhmann. The "selective affinity" that yielded modern German *Kontingenzsinn* and made possible Luhmann's contingency-oriented systems theory was less the result of a reception of Leibniz's solution as it was a result of the problems he left behind. As several recent studies have emphasized, the difficulty of explaining the order and apparent "purposiveness" of the universe by recourse to the figure of "self-organization" has been a constant preoccupation since the Enlightenment. The emerging life sciences formed one particularly paradigmatic strand, but it was far from alone.[40] It preoccupied legal, political, economic and social theorists in the eighteenth and nineteenth centuries no less than "secular theologians" and natural philosophers, and later, the biologists, chemists, physicists, and engineers who followed them.[41]

In my reconstruction, Luhmann's account of self-organizing "systems rationality" as contingent selectivity coalesced through his attempt to overcome an antinomy that had structured these debates about emergent order since the eighteenth century, which I refer to as the "voluntarism/automatism antinomy." (To be clear, these are my terms, not Luhmann's: they belong to my attempt to make sense of the conditions of possibility of his work in terms of the problems handed down by history.) Attempts to explain the apparent purposiveness of the world by means of "self-organization" oscillated between two poles: cosmic order could be the product of some kind of spontaneous, purposive, striving and willing force (voluntarism), or it could be viewed as the anonymous and random concatenation of mute and lifeless elements (automatism). "Pure chance" and the arbitrary will were equally irrational principles, precipitating 'something' out of 'nothing.' Both contained the seeds of nihilism in equal measure, precisely insofar as they looked to account for the appearance of purpose in nature. They both invoked contingency solely as accident, caprice, arbitrariness, coincidence and pure chance—*tyche*, *automaton*, *symbanein*. In other words, it belonged to the "vertical," not the "horizontal" dimension of *Kontingenzsinn*.

Luhmann's appeal to the abstract logic "selectivity" can be read as an attempt to reframe the problem of contingency in terms of the "horizontal" ordering of possibilities and away from the ontotheological question of grounds. This move shifted attention from the ontological metaphysics of causal "creation" or "*production*" towards the *reduction* of overwhelming possibilities. The contingent "constitution" of order was not to be read as creation *ex nihilo*, but as the result of a kind of self-restriction, of exclusion and negation.

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[39] "At this point there enters an element which occurs repeatedly in the history of cybernetics—the influence of mathematical logic. If I were to choose a patron saint for cybernetics out of the history of science, I should have to choose Leibniz. The philosophy of Leibniz centers about two closely related concepts-that of a universal symbolism and that of a calculus of reasoning." Norbert Wiener, *Cybernetics; or, Control and Communication in the Animal and the Machine.* (New York: M.I.T. Press, 1961), 12.

[40] Peter Hanns Reill, *Vitalizing Nature in the Enlightenment* (Berkeley: University of California Press, 2005); Jessica Riskin, *The Restless Clock: A History of the Centuries-Long Argument over What Makes Living Things Tick* (Chicago: University of Chicago Press, 2016).

[41] For the most comprehensive synthetic historical account on the eighteenth-century dimensions of "self-organization," see Jonathan Sheehan and Dror Wahrman, *Invisible Hands: Self-Organization and the Eighteenth Century* (Chicago: The University of Chicago Press, 2015); Adelheid Voskuhl, "Engineering Philosophy: Theories of Technology, German Idealism, and Social Order in High-Industrial Germany," *Technology and Culture* 57, no. 4 (November 16, 2016): 721–52; Michael Heidelberger, "Concepts of Self-Organization in the 19th Century," in *Selforganization: Portrait of a Scientific Revolution*, ed. Wolfgang Krohn, Günter Küppers, and Helga Nowotny (Dordrecht: Springer Netherlands, 1990); John Tresch, *The Romantic Machine: Utopian Science and Technology after Napoleon* (Chicago: University of Chicago Press, 2012).

» 5. Of Mice, Men, Machines, and Minotaurs «

The immediate intellectual currents informing Luhmann's recovery of a robust notion of possibility were notably diverse. But despite their different origins, they all shared a common conception of possibility not only as something more "real" than mere imagination, but also as a constituent of rational order. While art and literature undoubtedly guided Blumenberg to his understanding of *Kontingenzsinn*, the key threads of *Kontingenzsinn* that found their way into Luhmann's sociological systems theory can be roughly divided into three basic and occasionally overlapping groupings: *first*, what might loosely be called a "revamped transcendental idealism," encompassing Ernst Cassirer's neo-Kantianism, Edmund Husserl's phenomenology and Martin Heidegger's existential ontology; *second*, classical sociology, especially Max Weber, and the broader program of functionalism, each deeply influenced by the most Leibnizian elements of neo-Kantianism; and *third*, the various scientific methods and programs that proliferated in the United States after World War Two, from cybernetics and information theory to General Systems Theory and Herbert Simon's theories of organized rationality, which can be loosely collected under the heading of the "sciences of complexity." From these three "threads" of modern *Kontingenzsinn*, which Leibniz had once spun to find a way out of the labyrinths of theodicy, Luhmann would weave his systems theory of society.

Not only was Weber's sociology shot through with the motif of theodicy; some of his most important methodological innovations centered on the problematic relationship of causality, infinity, and the counterfactual positing of what he called "objective possibility."[42] *Kontingenz* may not have figured in his vocabulary, but the experience of contingency, as Kari Palonen has emphasized, lurked behind almost every corner of his theory.[43] The same could be said of Ernst Cassirer (1874-1945). Although famed as a neo-Kantian, Cassirer was perhaps even more indebted to Leibniz, who occupied a special place in his interpretation of intellectual history. With respect to the Enlightenment, he made the astonishing claim that "Leibniz… seemed to have exhausted all its possibilities, and the philosophy of the Enlightenment added nothing essential to his theoretical concepts and viewpoints."[44] His famous critique of the metaphysics of substance in favor of a philosophy of "functions" borrowed heavily from Leibniz's infinitesimal calculus, and provided one of the key planks of Luhmann's own reconstruction of sociological functionalism as a technique for understanding manifestations of order in terms of the organization of possibilities rather than of substantial things.[45] In parallel, the phenomenology of Husserl (1859-1938), especially his

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[42] On objective possibility and causation, see Max Weber, "The Logic of Historical Explanation," in *Max Weber: Selections in Translation*, ed. W. G. Runciman, trans. E. Matthews (Cambridge ; New York: Cambridge University Press, 1978), 111–34; Max Weber, "'Objectivity' in Social Science and Social Policy," in *The Methodology Of The Social Sciences*, trans. Edward A. Shils and Henry A. Finch (Glencoe Ill.: Free Press, 1949); Stephen P. Turner and Regis A. Factor, "Objective Possibility and Adequate Causation in Weber's Methodological Writings," *The Sociological Review* 29, no. 1 (February 1981): 5–28; For references to theodicy, see Max Weber, "Social Psychology of the World Religions," in *From Max Weber: Essays in Sociology*, ed. Hans Heinrich Gerth and C. Wright Mills (New York: Oxford University Press, Galaxy, 1958); Max Weber, *The Protestant Ethic and the Spirit of Capitalism* (Courier Corporation, 2012). These two aspects will be discussed in detail in Chapters Four, Five, and in the conclusion.

[43] Kari Palonen, *Das "Webersche Moment": zur Kontingenz des Politischen* (Opladen: Westdeutscher Verlag, 1998); Kari Palonen, *A Political Style of Thinking: Essays on Max Weber* (Colchester: ECPR Press, 2017).

[44] Ernst Cassirer, *The Philosophy of the Enlightenment*, ed. Peter Gay, trans. Fritz C.A. Koelln and James P. Pettegrove (Princeton (N.J.): Princeton University Press, 2009), 158.

[45] Ernst Cassirer, *Substance and Function and Einstein's Theory of Relativity* (New York: Dover Publications, 1953); Enno Rudolph, "Substance as Function: Ernst Cassirer's Interpretation of Leibniz as Criticism of Kant," in *Philosophy, Mathematics and Modern Physics: A Dialogue*, ed. Enno Rudolph and Ion-Olimpiu Stamatescu (Berlin, Heidelberg: Springer

transcendental account of the "world" as a "horizon of possibilities" that is "constituted" by transcendental consciousness contributed to both Luhmann's functional method and to Blumenberg and Luhmann's "horizontal" conception of the "contingency of the world."[46]

The horizontal dimension of *Kontingenz* was particularly acute in the predominantly Anglophone theories of complexity that quickly gained prominence immediately following World War Two, and from which Luhmann would adapt the more technical language of "selectivity." Accounts of Luhmann's "American" influences tend to stress the role of sociologist Talcott Parsons (1902-1979). While not denying his significance, this dissertation lays greater emphasis than others on the contributions of Herbert Simon (1916-2001), known for his formal mathematical theory of rational decision-making under conditions of uncertainty, encapsulated in his famous concept of "bounded rationality." Simon's depiction of rationality as a form of problem-solving behavior initially emerged from his early work on public administrations, but he soon came to formalize it and apply it to any complex system, including humans, organizations, and machines.

Simon's theory operated according to a logic of selectivity rooted in the mathematical theory of information, independently developed in 1948 by Claude Shannon (1916-2001) and Norbert Wiener (1894-1964). This theory defined information in terms of the difference between an actually selected message and the other possible messages that could have been selected, which it could quantify as a measure of uncertainty. This theory of communication as the transmission of "selectivity" would then become perhaps the most invaluable plank of cybernetics. And while cybernetics is usually identified as an American project, it was the English cyberneticist and systems theorist W. Ross Ashby (1903-1972) who exerted by far the greatest influence on the early stages of Luhmann's systems theory. With his concept of "requisite variety," Ashby presented a formal theory of the behavior of complex systems in terms of the relationship of "selectivity" between the variety of "possibilities" of a system and those of its environment.

From these three "threads" of modern *Kontingenzsinn*, which Leibniz had once spun to find a way out of the labyrinths of theodicy, Luhmann would weave his systems theory of society.

Berlin Heidelberg, 1994), 235–42; Ernst Cassirer, *Leibniz' System in seinen wissenschaftlichen Grundlagen* (N. G. Elwert, 1902); Gregory B. Moynahan, *Ernst Cassirer and the Critical Science of Germany, 1899-1919* (London: Anthem Press, 2013).

[46] Blumenberg, "Lebenswelt und Technisierung unter Aspekten der Phänomenologie."

1
"The Accident Known as Luhmann"
A Brief Biographical Sketch

"On my appointment to the Department of Sociology established at the University of Bielefeld in 1969, I was asked what research projects I had running. My project was, and ever since has been, the theory of society; term: thirty years; costs: none."[1] This opening claim of Luhmann's final work, *Theory of Society* (1997), has been tirelessly repeated at the start of nearly every introduction to Luhmann's ideas. Its retroactive self-mythologizing, which confined his career within the neat and tidy frame of decades, only accrued further mythical significance once his death the following year literally consummated this identification of life and work as a kind of theoretical *Gesamtkunstwerk*. The statement could be read as either a testament to his obsessive single-mindedness—he once said his defining characteristic was "stubbornness"—or worse, a retroactively invented self-fulfilling prophecy.[2] Although he was dismissive towards the genre of intellectual biography, it was not only because he wanted to the work to speak for itself; he wanted his person to *disappear* into his work, to become indistinguishable from it.[3]

Luhmann's resistance to the biographical genre was over-determined, and a frequent topic of conversation in interviews.[4] In addition to whatever personal or psychological reasons he had to efface his personal life story, his theory also provided ample justifications for his suspicion towards intellectual biography and the cult of genius attached to the "classics." He repeatedly chided Jürgen Habermas for orienting his thought in terms of "authors" rather than concepts and problems. Given the complexity of human experience, Luhmann was suspicious of attempts to make causal claims connecting biographical details to thought, an exercise that could all too easily insinuate determinism. "Biographies," he once explained, are "a chain of accidents [*Zufällen*] that are organized into something that then become gradually less mobile."[5] It was not that he denied the existence or relevance or causal relationships between thought and experience, only that it could easily obscure more than it would enlighten.[6]

Nevertheless, as far as the themes of this dissertation are concerned, the few publically known elements of Luhmann's biography offer up some compelling connections between life and thought. Several episodes and patterns help to explain not only his overall fascination with *Kontingenz*, but also its general significance and the larger role it played within his larger system.

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[1] Niklas Luhmann, *Theory of Society, Volume 1*, trans. Rhodes Barrett (Stanford, California: Stanford University Press, 2012), xi.

[2] The German word he used was "*Bockigkeit*." Wolfgang Hagen, ed., "Vorsicht vor zu raschem Verstehen: Niklas Luhmann im Fernsehgespräch mit Alexander Kluge," in *Warum haben Sie keinen Fernseher, Herr Luhmann?: letzte Gespräche mit Niklas Luhmann* (Berlin: Kadmos, 2004), 77.

[3] Hans Ulrich Gumbrecht, "Niklas Luhmanns flüchtige Privatheiten," in *"Gibt es eigentlich den Berliner Zoo noch?": Erinnerungen an Niklas Luhmann*, ed. Theodor M. Bardmann and Dirk Baecker (Konstanz: UVK, Universitätsverlag Konstanz, 1999), 174–78.

[4] Niklas Luhmann, "Biographie, Attitüden, Zettelkasten," in *Archimedes und wir: Interviews*, ed. Dirk Baecker and Georg Stanitzek, 143 (Berlin: Merve Verlag, 1987); Niklas Luhmann, "Es gibt keine Biografie: Niklas Luhmann im Radiogespräch mit Wolfgang Hagen," in *Warum haben Sie keinen Fernseher, Herr Luhmann?: letzte Gespräche mit Niklas Luhmann*, ed. Wolfgang Hagen (Berlin: Kadmos, 2004); Niklas Luhmann, "Ich nehme mal Karl Marx," in *Archimedes und wir: Interviews*, ed. Dirk Baecker and Georg Stanitzek, 143 (Berlin: Merve Verlag, 1987).

[5] Luhmann, "Biographie, Attitüden, Zettelkasten," 149.

[6] Luhmann, "Ich nehme mal Karl Marx," 19–25; For an extended discussion, see Eberhard Blanke, *Niklas Luhmann: "... stattdessen ..." Eine biografische Einführung* (Norderstedt: Books on Demand, 2014).

Although this dissertation does not aim to offer readers an intellectual biography of Luhmann, an account of some of Luhmann's life experiences is indispensable to the making sense of unique pathos of *Kontingenzsinn* in the Bonn Republic.

a. Luhmanniana

The task of biography is made difficult in the case of Niklas Luhmann, however, by the state of the relevant sources currently available. While the secondary literature on Luhmann's work in German alone is voluminous,[7] to say the least, there are currently no sustained accounts of the genesis of Luhmann's early work in German or English.[8] Virtually every introduction to Luhmann sets out to explain his "mature" theory, giving short shrift to what they seem to perceive to be the merely provisional stages in the construction of his grand synthesis. This has much to do with the fact that intellectual historians have so far shown virtually no interest in Luhmann's work.[9] The bulk of secondary studies on Luhmann's work are the products of former students, acolytes, or critics, rather than dispassionate observers. For these types, interest in an author's "early work" usually stems from the idea that some esoteric clue remains hidden in an earlier text, or that an alternative "version" of the author might be located that would have better (or worse) appeal for a contemporary audience—as was the case, for example, for the early "humanist" Marx after the rediscovery of the Paris manuscripts in 1932. Lacking such impulses, introductions to Luhmann's thought in both English[10] and German[11] have so far focused on the "mature" expressions of his theory and its peculiar vocabulary, reviewing works prior to his defining 1984 text, *Social Systems*, in

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[7] Among the more useful volumes of collected essays in German dedicated to Luhmann, see Dirk Baecker, *Theorie als Passion: Niklas Luhmann zum 60. Geburtstag* (Suhrkamp, 1987); Werner Krawietz and Michael Welker, eds., *Kritik der Theorie sozialer Systeme: Auseinandersetzungen mit Luhmanns Hauptwerk* (Frankfurt am Main: Suhrkamp, 1992); Theodor M. Bardmann and Dirk Baecker, eds., *"Gibt es eigentlich den Berliner Zoo noch?": Erinnerungen an Niklas Luhmann* (Konstanz: UVK, Universitätsverlag Konstanz, 1999); Henk de Berg and Johannes F. K. Schmidt, eds., *Rezeption und Reflexion: zur Resonanz der Systemtheorie Niklas Luhmanns ausserhalb der Soziologie* (Frankfurt am Main: Suhrkamp, 2000); Peter-Ulrich Merz-Benz and Gerhard Wagner, eds., *Die Logik der Systeme: zur Kritik der systemtheoretischen Soziologie Niklas Luhmanns* (Konstanz: UVK, 2000); Michael King and C. J. Thornhill, eds., *Luhmann on Law and Politics: Critical Appraisals and Applications* (Oxford: Hart, 2006).

[8] A few notable, but brief exceptions include Horst Baier, "Die Geburt der Systeme aus dem Geist der Institution: Arnold Gehlen und Niklas Luhmann in der ‚Genealogie' der ‚Leipziger Schule'," in *Zur geisteswissenschaftlichen Bedeutung Arnold Gehlens: Vorträge und Diskussionsbeiträge des Sonderseminars 1989 der Hochschule für Verwaltungswissenschaften Speyer*, ed. Helmut Klages and Helmut Quaritsch (Berlin: Duncker & Humblot, 1994); Marleen Brans and Stefan Rossbach, "The Autopoiesis of Administrative Systems: Niklas Luhmann on Public Administration and Public Policy" 75 (1997): 417–39; Knut Amelung, "Der frühe Luhmann und das Gesellschaftsbild bundesrepublikanischer Juristen," in *Festschrift für Klaus Lüderssen: zum 70. Geburtstag am 2. Mai 2002*, ed. Klaus Lüderssen and Cornelius Prittwitz (Baden-Baden: Nomos, 2002); Oliver Jahraus et al., eds., *Luhmann-Handbuch: Leben--Werk--Wirkung* (Stuttgart: Verlag J.B. Metzler, 2012).

[9] With the recent exception of Gregory Moynahan, whose current book project focuses on the intellectual reception of cybernetics in Germany.

[10] William Rasch and Eva M. Knodt, "Systems Theory and the System of Theory," *New German Critique*, no. 61 (1994): 3–7 (this is the introduction to a theme issue dedicated to Luhmann); John Paterson, "An Introduction to Luhmann," *Theory, Culture & Society* 14, no. 1 (February 1, 1997): 37–39; William Rasch, *Niklas Luhmann's Modernity: The Paradoxes of Differentiation* (Stanford University Press, 2000); Michael King and C. J Thornhill, *Niklas Luhmann's Theory of Politics and Law* (New York: Palgrave Macmillan, 2003); Hans-Georg Moeller, *Luhmann Explained: From Souls to Systems*, Ideas Explained, v. 3 (Chicago: Open Court, 2006); Hans-Georg Moeller, *The Radical Luhmann* (New York: Columbia University Press, 2011); Andreas Philippopoulos-Mihalopoulos, *Niklas Luhmann: Law, Justice, Society* (Routledge, 2009); Christian Borch, *Niklas Luhmann*, Key Sociologists (Abingdon, Oxon ; New York: Routledge, 2011).

[11] Jürgen Gerhards, *Wahrheit und Ideologie: Eine kritische Einführung in die Systemtheorie von Niklas Luhmann* (Köln: Janus, 1984); Detlef Horster, *Niklas Luhmann* (München: Beck C. H., 1997); Peter Fuchs, *Niklas Luhmann — beobachtet: Eine Einführung in die Systemtheorie* (Springer-Verlag, 2013); Blanke, *Luhmann: "stattdessen ..."*; Walter Reese-Schäfer, *Niklas Luhmann zur Einführung* (Junius Verlag, 2019); Jahraus et al., *Luhmann-Handbuch.*

only the most cursory fashion, if at all.[12] Of his numerous works from the early 1960's to the mid-1970's, only one collection of essays and three books (two of them very short) have been translated into English.[13]

Although some of the basic details of his personal life have been presented several times in introductions to his thought,[14] just one very short book has attempted anything of the sort—and only with the qualification in its title that it is "in the place of" a real biography.[15] This almost certainly has something to do with the fact that there is simply too little and too much material on which to work. One the one hand, Luhmann's *Nachlass* (archive) is currently under construction, but it consists almost solely of his famous *Zettelkasten* (note-card system) and unpublished manuscripts.[16] He allegedly destroyed many of his personal papers and correspondence, and no diary is known to exist.[17] Interviews, personal reminiscences of friends and colleagues, and the occasional self-reflection in published lectures, provide the primary source-base for biographical reconstruction.[18]

Those interested in writing an intellectual biography of the doyen of Bielefeld must also contend with the challenges posed by his notoriously prodigious output. Luhmann published more than seventy books and four hundred articles in his lifetime. But it is not only the size of his oeuvre that is so intimidating, but also its variety and technical complexity: Luhmann dedicated lengthy monographs to each of society's major subsystems and communication media (politics, law, economics, education, science, art, love, power, trust etc.), with many receiving such treatment more than once. This required him to engage substantially with the literature of a massive array of disciplines, from sociology, philosophy, economics and political science to administrative science, decision theory, cybernetics, art history, and theology. And so in addition to gaining familiarity with Luhmann's own abstract and complex theoretical system, the interpreter must also feel comfortable with the traditions on which he drew. Meanwhile, the steady stream of previously unpublished

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[12] Definitions of Luhmann's terminology, such as Claudio Baraldi, Giancarlo Corsi, and Elena Esposito, *GLU: Glossar zu Niklas Luhmanns Theorie sozialer Systeme* (Frankfurt am Main: Suhrkamp, 2015) are thus less helpful for those looking to understand Luhmann's earlier work.

[13] Niklas Luhmann, *The Differentiation of Society*, ed. Stephen Holmes and Charles Larmore, European Perspectives (New York: Columbia University Press, 1982); Niklas Luhmann, *A Sociological Theory of Law*, ed. Martin Albrow, 2 edition (Routledge, 2016); Niklas Luhmann, *Trust and Power*, ed. Michael King and Christian Morgner, trans. Howard Davis, John Raffan, and Kathryn Rooney (Cambridge, UK: Polity Press, 2017); Several early essays appear in Niklas Luhmann, *Essays on Self-Reference* (Columbia University Press, 1990) but most were written in the 1980's.

[14] The most useful are Horster, *Niklas Luhmann*; Rudolf Stichweh, "Niklas Luhmann," in *The Wiley-Blackwell Companion to Major Social Theorists*, ed. George Ritzer and Jeffrey Stepnisky (Oxford, UK: Wiley-Blackwell, 2011), 287–309; Dirk Baecker, Peter Fuchs, and Johannes F. K. Schmidt, "Zur Biographie," in *Luhmann-Handbuch: Leben — Werk — Wirkung*, ed. Oliver Jahraus et al. (Stuttgart: J.B. Metzler, 2012), 1–11.

[15] Blanke, *Luhmann: "stattdessen ..."*

[16] Luhmann's archive is being made available online in a digital format. Materials digitized thus far can be viewed here: "Niklas Luhmann-Archiv," accessed May 10, 2019, https://niklas-luhmann-archiv.de/; For an overview of the archival project in its early stages, see Johannes F. K. Schmidt, "Der Nachlass Niklas Luhmanns – eine erste Sichtung: Zettelkasten und Manuskripte," *Soziale Systeme* 19, no. 1 (January 1, 2014).

[17] Blanke, *Luhmann: "stattdessen ...,"* 11. Blanke recounted this information from a personal correspondence with Klaus Dammann.

[18] Niklas Luhmann, *Archimedes Und Wir: Interviews*, ed. Dirk Baecker and Georg Stanitzek, Internationaler Merve Diskurs 143 (Berlin: Merve Verlag, 1987); Niklas Luhmann, *Warum haben Sie keinen Fernseher, Herr Luhmann?: letzte Gespräche mit Niklas Luhmann*, ed. Wolfgang Hagen (Berlin: Kadmos, 2004); Wolfgang. Hagen and Dirk Baecker, eds., *Was tun, Herr Luhmann?: vorletze Gespräche mit Niklas Luhmann* (Berlin: Kulturverlag Kadmos, 2009); Klaus Dammann, *Wie halten Sie's mit Außerirdischen, Herr Luhmann?: Nicht unmerkwürdige Gespräche mit Niklas Luhmann* (Berlin: Kulturverlag Kadmos Berlin, 2014); Bardmann and Baecker, *"Gibt es eigentlich den Berliner Zoo noch?*; Niklas Luhmann, *Introduction to Systems Theory*, ed. Dirk Baecker, trans. Peter Gilgen (Malden, MA: Polity, 2013).

manuscripts released from his archive every few years only adds to the daunting massif of text looming before anyone looking to make sense of his life's work.[19]

Such an ambitiously interdisciplinary project resulted in what one commentator has referred to as Luhmann's "functional eclecticism."[20] It was only functional, however, thanks to his famous *Zettelkasten,* the filing card system he used to write, read and even *think*.[21] Although an old "technology," the sophistication and size of Luhmann's *Zettelkasten*, as well as the importance he attributed to it, have made it into a potent symbol for Luhmann's life and work.[22] He developed two different systems, one begun in 1951, and the other in 1962. Together, the two systems consisted of approximately 90,000 handwritten cards, each linked to one another within their respective system in a complex network through an indexed notation system that prefigures the "tags" used in digital data retrieval systems. This "second memory" has been an object of fascination for commentators owing to its canny resemblance to the theory it helped him construct, a "a complex cognitive system with a creativity of its own."[23] Like any other system, it reduced complexity of Luhmann's own environment in order to enable him to increase the complexity of his theoretical system. Suggestively, its mode of operation also bore a striking resemblance to Luhmann's description of biography as a "chain of accidents." Each card was linked to clusters of other cards; the path through them could take surprising and "serendipitous" detours through topics that otherwise might never have appeared.[24]And so however reticent Luhmann may have been to draw links between his life and his work, he clearly reveled in a specific kind of parallel: for Luhmann to describe a biography as a "chain of accidents" that slowly gained in coherence was hardly the dismissal it may appear at first glance. After all, for the systems theorist this was the only way anything in the world ever came to accrue intelligibility. Hence it is no surprise that, when pressed in interviews, Luhmann occasionally emphasized some of his unique experiences with life's contingencies.

Luhmann also used the contingency of one "event" in particular to dissuade interest in his earlier work, namely, the "autopoietic turn" he announced with the publication of *Social Systems* in 1984. The lack of studies of the early Luhmann also has much to do with the credulity of this claim. His prior theory, he explained, had rested on the theory of "open systems," that is, the idea that

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[19] Among others, these include Niklas Luhmann, *A Systems Theory of Religion*, ed. Andre Kieserling, trans. David Brenner and Adrian Hermann (Stanford, California: Stanford University Press, 2013); Niklas Luhmann, *Kontingenz und Recht: Rechtstheorie im interdisziplinären Zusammenhang*, ed. Johannes Schmidt (Berlin: Suhrkamp Verlag, 2013); Niklas Luhmann, *Die Politik der Gesellschaft*, 1. edition (Frankfurt am Main: Suhrkamp Verlag, 2008); Niklas Luhmann, *Der Neue Chef*, ed. Jürgen Kaube (Berlin: Suhrkamp, 2016); Luhmann, *Introduction to Systems Theory*; Niklas Luhmann, *Macht im System*, ed. André Kieserling (Berlin: Suhrkamp, 2013); Niklas Luhmann, *Politische Soziologie*, ed. André Kieserling (Berlin: Suhrkamp, 2015); Niklas Luhmann, *Die Moral der Gesellschaft*, ed. Detlef Horster (Frankfurt am Main: Suhrkamp, 2016); Niklas Luhmann, *Systemtheorie der Gesellschaft*, ed. Johannes F. K. Schmidt, André Kieserling, and Christoph Gesigora (Berlin: Suhrkamp Verlag, 2017).

[20] Christian Borch, "Functional Eclecticism: On Luhmann's Style of Theorizing," *Revue Internationale de Philosophie* 66, no. 259 (1) (2012): 123–42.

[21] Niklas Luhmann, "Kommunikation mit Zettelkästen," in *Öffentliche Meinung und sozialer Wandel / Public Opinion and Social Change*, ed. Horst Baier, Hans Mathias Kepplinger, and Kurt Reumann (Wiesbaden: VS Verlag für Sozialwissenschaften, 1981), 222–28; Luhmann, "Biographie, Attitüden, Zettelkasten"; Markus Krajewski, "Paper as Passion: Niklas Luhmann and His Card Index," in *"Raw Data" Is an Oxymoron*, ed. Lisa Gitelman, Infrastructures Series (Cambridge, Massachusetts ; London, England: The MIT Press, 2013); Johannes F. K. Schmidt, "Niklas Luhmann's Card Index: Thinking Tool, Communication Partner, Publication Machine.," in *Forgetting Machines: Knowledge Management Evolution in Early Modern Europe*, ed. Alberto Cevolini (Brill, 2016); Johannes F. K. Schmidt, "Niklas Luhmann's Card Index: The Fabrication of Serendipity," *Sociologica* 12, no. 1 (2018): 53–60.

[22] On the general history of card filing systems, see Markus Krajewski, *Paper Machines: About Cards & Catalogs, 1548-1929* (MIT Press, 2011).

[23] Schmidt, "The Fabrication of Serendipity," 55.

[24] Schmidt, 58.

systems can only be defined through their relationship to and exchanges with their environment. "Autopoietic systems," by contrast, a concept borrowed from Chilean theoretical biologists Humberto Maturana and Francisco Varela, are "operationally closed." They are not only self-organizing and self-referential, but literally "self-making"; they produce all of "elements" that constitute them rather than merely relating already existing things after the fact.[25]

It is my contention, however, that there is more continuity than discontinuity in Luhmann's thought; that the bulk of his most important and central ideas had been worked out by the early 1970's when he attained full recognition of the significance of *Kontingenz*; and that his subsequent work represented a refinement and, at most, a refit of its basic architecture. André Kieserling, the one-time student of Luhmann who now occupies his former chair at Bielefeld and is currently directing the organization of his *Nachlass*, has also voiced the suspicion that Luhmann only proclaimed the autopoietic turn in *Social Systems* to relieve potential readers from the daunting task of feeling compelled to read the scores of books and articles he had already published over the previous two decades.[26]

Luhmann's paltry reception in the United States was conditioned in the first instance by his association with Parsons' structural-functionalism, which had become increasingly passé in Anglophone sociology by the 1970's, when Luhmann's reputation began to take off following his much-publicized debate with Jürgen Habermas.[27] That the latter had effectively branded him a technocratic conservative also limited his reception among critical social theorists and historians in the United States, who more or less took for granted Habermas's verdict.[28] What reception there was occurred mostly in the 1990's in critical literary studies, and centered overwhelmingly on Luhmann's relationship to "postmodernism" and "posthumanism."[29] Sociologists and social theorists mostly turned a blind eye. After all, there were other social theorists on offer who stressed themes similar enough to the ones for which Luhmann had become famous, whose politics were more palatable and prose more legible to an American audience—Zygmunt Bauman, Ulrich Beck, and Anthony

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[25] Niklas Luhmann, *Social Systems*, trans. John Bednarz Jr. and Dirk Baecker (Stanford, CA: Stanford University Press, 1995); Niklas Luhmann and Franco Volpi, "Archimedes und wir," in *Archimedes und wir: Interviews*, ed. Dirk Baecker and Georg Stanitzek, 143 (Berlin: Merve Verlag, 1987), 156–66.

[26] Conversation with André Kieserling, University of Bielefeld, July 2016

[27] Steffen Roth, "Les Deux Angleterres et le Continent: Anglophone Sociology as the Guardian of Old European Semantics," SSRN Scholarly Paper (Rochester, NY: Social Science Research Network, 2013), http://papers.ssrn.com/abstract=2265350; William Rasch, "Niklas Luhmann," *New German Critique* 44, no. 3 (132) (November 1, 2017): 189–203.

[28] Jürgen Habermas, *Legitimation Crisis* (Boston: Beacon Press, 1975); Jürgen Habermas, *The Theory of Communicative Action, Volume 2: Lifeworld and System: A Critique of Functionalist Reason*, trans. Thomas McCarthy (Boston: Beacon Press, 1985); Jürgen Habermas, "Excursus on Luhmann's Appropriation of the Philosophy of the Subject through Systems Theory," in *The Philosophical Discourse of Modernity: Twelve Lectures*, trans. Frederick G. Lawrence (Cambridge, Mass.: The MIT Press, 1990); Thomas McCarthy, "Complexity and Democracy: Or the Seducements of Systems Theory.," in *Communicative Action: Essays on Jürgen Habermas's The Theory of Communicative Action*, ed. Axel Honneth and Hans Joas, Studies in Contemporary German Social Thought (Cambridge, Mass: MIT Press, 1991); Jan-Werner Müller, *A Dangerous Mind: Carl Schmitt in Post-War European Thought* (New Haven: Yale University Press, 2003).

[29] Niklas Luhmann et al., "6. Theory of a Different Order: A Conversation with Katherine Hayles and Nlklas Luhmann," in *Observing Complexity: Systems Theory and Postmodernity*, ed. William Rasch and Cary Wolfe (Minneapolis: University of Minnesota Press, 2000); Cary Wolfe, "In Search of Post-Humanist Theory: The Second-Order Cybernetics of Maturana and Varela," *Cultural Critique*, no. 30 (1995): 33–70; Cary Wolfe, *What Is Posthumanism?* (Minneapolis: University of Minnesota Press, 2010); William Rasch and Cary Wolfe, eds., *Observing Complexity: Systems Theory and Postmodernity* (Minneapolis: University of Minnesota Press, 2000); Rasch, *Niklas Luhmann's Modernity*; Hans Ulrich Gumbrecht, "How Is Our Future Contingent? Reading Luhmann Against Luhmann," *Theory, Culture & Society* 18, no. 1 (February 1, 2001): 49–58; Robert Holub, "Luhmann's Progeny: Systems Theory and Literary Studies in the Post-Wall Era," *New German Critique*, no. 61 (January 1994): 143–59.

Gidden's studies of modernity are perhaps the most familiar.[30] In the United Kingdom conditions were slightly more favorable, perhaps because Gunther Teubner's Luhmann-influenced theory of "autopoietic law" exerted considerable influence on one corner of British legal studies owing to his time at the London School of Economics in the early 1990's.[31] In the meantime, the political theorists Michael King and Chris Thornhill have established themselves as Luhmann's most vocal Anglophone interpreters.[32]

More generally, Luhmann's work perhaps found its greatest impact in the field of legal theory.[33] It has also been one of the most researched aspects of his work.[34] This should come as no surprise, since law was the only field Luhmann ever formally studied in university. The traces of his initial legal orientation can be felt throughout his larger project for a systems theory of society. For some of the impulses that animated that theory also conditioned his early choice to study law: namely, an abiding fear of the arbitrary.

b. "A Chain of Accidents" – A Biographical Sketch, 1927-1971

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[30] Zygmunt Bauman, *Modernity and Ambivalence* (Oxford: Polity, 1993); See also Zygmunt Bauman, *Liquid Modernity* (John Wiley & Sons, 2013); Ulrich Beck, *Risikogesellschaft: Auf dem Weg in eine andere Gesellschaft* (Frankfurt (am Main): Suhrkamp Verlag, 1986); Anthony Giddens, *The Constitution of Society: Outline of the Theory of Structuration* (Cambridge [Cambridgeshire]: Polity Press, 1984); Anthony Giddens, *The Consequences of Modernity* (Stanford, Calif.: Stanford University Press, 1990).

[31] Gunther Teubner, *Autopoietic Law - A New Approach to Law and Society* (De Gruyter, 1987); Gunther Teubner, *Recht als autopoietisches System* (Frankfurt am Main: Suhrkamp, 1989); Gunther Teubner, *Law as an Autopoietic System* (Oxford, UK; Cambridge, USA: Blackwell, 1993); Gunther Teubner, "Economics of Gift — Positivity of Justice: The Mutual Paranoia of Jacques Derrida and Niklas Luhmann," *Theory, Culture & Society* 18, no. 1 (February 1, 2001): 29–47; Gunther Teubner, *Constitutional Fragments: Societal Constitutionalism and Globalization*, Oxford Constitutional Theory (Oxford: Oxford University Press, 2012).

[32] King and Thornhill, *Niklas Luhmann's Theory of Politics and Law*; King and Thornhill, *Luhmann on Law and Politics*; Chris Thornhill, "Niklas Luhmann: A Sociological Transformation of Political Legitimacy?," *Distinktion: Journal of Social Theory* 7, no. 2 (January 1, 2006): 33–53; Chris Thornhill, "Niklas Luhmann, Carl Schmitt and the Modern Form of the Political," *European Journal of Social Theory* 10, no. 4 (November 1, 2007): 499–522; Chris Thornhill, "Towards a Historical Sociology of Constitutional Legitimacy," *Theory and Society* 37, no. 2 (2008): 161–97; See also the brief debate between Thornhill and Teubner in 2011: Chris Thornhill, "Constitutional Law from the Perspective of Power: A Response to Gunther Teubner," *Social & Legal Studies* 20 (2011): 244–47; Gunther Teubner, "Societal Constitutionalism without Politics: A Rejoinder," *Social & Legal Studies* 20 (2011): 248–52.

[33] For a more general overview of Luhmann's reception in legal theory, see Klaus A. Ziegert, "Rechtstheorie, Reflexionstheorien des Rechtssystems und die Eigenwertproduktion des Rechts," in *Rezeption und Reflexion: zur Resonanz der Systemtheorie Niklas Luhmanns ausserhalb der Soziologie*, ed. Henk de Berg and Johannes F. K. Schmidt (Frankfurt am Main: Suhrkamp, 2000).

[34] Philippopoulos-Mihalopoulos, *Niklas Luhmann*; Ota Weinberger, "Luhmann's Approach to Ethics, Jurisprudence, and Legal Sociology: My Reasons for Doubts," *Archiv Für Rechts- Und Sozialphilosophie* 82, no. 4 (1996): 543–52; Hubert Rottleuthner, "A Purified Sociology of Law: Niklas Luhmann on the Autonomy of the Legal System," *Law & Society Review* 23, no. 5 (1989): 779–97; Anton Schütz, "Thinking the Law with and against Luhmann, Legendre, Agamben," *Law and Critique* 11, no. 2 (May 1, 2000): 107–36; Horst Folkers, "Das schwierige Recht der systemtheoretischen Soziologie: Zur Rechtssoziologie von Niklas Luhmann," *Archiv für Rechts- und Sozialphilosophie* 60, no. 3 (1974): 413–19; Richard Munch, "The Law in Terms of Systems Theory," ed. Niklas Luhmann, Elizabeth King, and Martin Albrow, *American Journal of Sociology* 92, no. 5 (1987): 1221–23; John W. Murphy, "Niklas Luhmann and His View of the Social Function of Law," *Human Studies* 7, no. 1 (1984): 23–38; Andrés Ollero, "La fonction technocratique du droit dans la «Systemtheorie» de Niklas Luhmann," *Archiv für Rechts- und Sozialphilosophie* 61, no. 4 (1975): 557–68; Niklas Luhmann, *Paradoxien Des Rechts Eine Debatte Zu Niklas Luhmanns Rechtssoziologie* (Stuttgart: Lucius & Lucius, 2000); Jörg Münstermann, "Zur Rechtstheorie Niklas Luhmanns," *Kritische Justiz* 2, no. 4 (1969): 325–38; Jean Clam, *Droit et société chez Niklas Luhmann: La contingence des normes* (Presses universitaires de France (réédition numérique FeniXX), 1997); Werner Krawietz, "Staatliches oder gesellschaftliches Recht? Systemabhängigkeiten normativer Strukturbildung im Funktionssystem Recht," in *Kritik der Theorie sozialer Systeme: Auseinandersetzungen mit Luhmanns Hauptwerk*, ed. Werner Krawietz and Michael Welker (Frankfurt am Main: Suhrkamp, 1992).

Born on December 8th, 1927 in the sleepy northern Hanseatic town of Lüneberg in Lower Saxony, Luhmann was the eldest son of Dora Gurtner and Wilhelm Luhmann. His mother was Swiss, and came from a family of hoteliers, while his father owned and managed a brewery that had been in the family for nearly a century. The shy, awkward and cerebral young Luhmann, however, never took to the family trade, preferring to read book to working with his hands.

Little is known about his childhood under National Socialism beyond a handful of interviews and few private remarks recounted by friends. What is clear, however, from context and from Luhmann's own statements, was the salience of the "*Umbruch*" ("upheaval") of 1945, which he "experienced with open eyes."[35] As with other members of his generational cohort, the so-called "skeptical" or "Flakhelfer" generation—a reference to the type of military service, loading shells into anti-aircraft batteries, into which underage males were pressed towards the end of the war—Luhmann came of age in the shadow of Nazism. Too young to be held responsible or even complicit, but old enough to consciously comprehend what was going on, this generation came the closest to actually experiencing 1945 as a "*Stunde Null*," Germany's "zero hour" after which everything supposedly began anew.[36]

Gangly and unathletic, Luhmann later told his friend Otthein Rammstedt that he was spurned by other children "in the time of the Hitler Youth."[37] The *Gymnasium* he attended, the Johanneum, was quickly "coordinated" with the Nazi's ideological agenda.[38] And by April of 1943, at the age of 15, he was drafted into service as a *Luftwaffenhelfer*, assisting with antiaircraft duties.[39] Like so many of his generation, this was where he first encountered *Kontingenz* in its purest and most arbitrary "vertical" dimension. Reflecting on Luhmann's death in 1998, Friedrich Kittler recalled a story he had heard second-hand, in which the elder theorist once attributed his abiding interest in *Kontingenz* to a particularly macabre episode experienced towards the end of the war: "'I stood with my partner on bridge Y, two *Pänzerfauste* [an anti-tank weapon] in four hands. Then there was a hiss, I turned around—there was no friend and no corpse, there was nothing. Since then… I think about contingency.' In other words," Kittler added, "only because the accuracy of the American anti-tank shells was not 100% could there be the accident [*Zufall*] known as Luhmann."[40]

His family seems to have kept its distance from the Nazi party—as the owner of a small, often struggling business, his father's political orientation, in Luhmann's recollection leaned towards a kind of laissez faire liberalism suspicious of state taxation and outright hostile to socialism he referred to as "wirtschaftsliberal."[41] Some controversy thus stirred when in 2007 Luhmann's name was discovered on the local Nazi party rolls. It is likely that his name was added without his knowledge, as was common practice at the time for those drafted into military service. Seventeen

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[35] Luhmann, "Biographie, Attitüden, Zettelkasten," 134.

[36] Historical research may have handily dispensed with this myth, producing ample evidence the tenacity of a wide range of continuities across this supposed caesura, but it would be hard to deny that this generation experienced this moment as a total reversal. Robert G. Moeller, *War Stories: The Search for a Usable Past in the Federal Republic of Germany* (Berkeley: University of California Press, 2001); Frank Biess and Robert G. Moeller, eds., *Histories of the Aftermath: The Legacies of the Second World War in Europe* (New York: Berghahn Books, 2010); Frank Biess, "Thinking After Hitler: The New Intellectual History of the Federal Republic of Germany," *History and Theory* 51, no. 2 (May 1, 2012): 221–45.

[37] Otthein Rammstedt, "In Memoriam: Niklas Luhmann," in *"Gibt es eigentlich den Berliner Zoo noch?": Erinnerungen an Niklas Luhmann*, ed. Theodor M. Bardmann and Dirk Baecker (Konstanz: UVK, Universitätsverlag Konstanz, 1999), 20.

[38] Stichweh, "Niklas Luhmann," 287.

[39] Normally this was reserved for sixteen-year old, but apparently since Luhmann skipped a grade, he was drafted along with his older classmates. Luhmann, "Biographie, Attitüden, Zettelkasten," 148–49.

[40] Friedrich A. Kittler, "Ein Herr namens Luhmann," in *"Gibt es eigentlich den Berliner Zoo noch?": Erinnerungen an Niklas Luhmann*, ed. Theodor M. Bardmann and Dirk Baecker (Konstanz: UVK, Universitätsverlag Konstanz, 1999), 185.

[41] Luhmann, "Biographie, Attitüden, Zettelkasten," 128; Luhmann, "Es gibt keine Biografie: Niklas Luhmann im Radiogespräch mit Wolfgang Hagen," 13–14, 22; Horster, *Niklas Luhmann*, 25.

years old at the war's end (which coincidentally, officially took place just outside Lüneberg), he was not yet of legal voting age, and even released early from his brief captivity in an American POW camp after the war for that very reason.[42]

After the war ended, Luhmann quickly completed the Abitur, enrolling in the Winter Semester of 1946 at Albert-Ludwigs-University in Freiburg, where he pursued legal studies [*Rechtswissenschaft*] with an emphasis on Roman Law. He often chalked up his determination to study law to what he experienced as the lawlessness of the Nazi regime, but it also likely had something to do with its relatively promising employment opportunities.[43] Whatever the case, by 1949 he had finished his studies at Freiburg, and returned to Lüneberg intending to become a lawyer, having found little appeal at the time in the idea of an academic life in jurisprudence.[44] But after a stint as a clerk at a local office from 1949 through 1953, the novice balked at what he perceived as the "dependence" of lawyers on their clients; counter-intuitively, he felt that working as an official in the public administration seemed "to offer greater freedom"[45]—a sentiment reflected in his later sociological work on public administrations, which would come to emphasize their functional "autonomy."[46] And so, in 1954 he began work as a clerk at the Lüneberg Higher Administrative Court [*Oberverwaltungsgericht*]. After finishing the second set of state exams in jurisprudence a year later, he moved to Hannover in 1955, the state capital of Lower Saxony, where he served from 1955-1960 as a parliamentary advisor [*Landtagsreferent*] for the Ministry of Culture, eventually rising to the position of *Oberregierungsrat*, a kind of higher civil servant. In Hannover he was tasked with processing compensation claims [*Entschädigungen*] for damages suffered during the war, or from Nazi persecution.[47] These were German claims, however, not to be confused with the larger *Wiedergutmachung* program of reparations for Jewish victims of the Holocaust, which were processed at the Federal level.[48] His experience left enough of an impact that he even dedicated an entire monograph to it in 1965.[49]

Luhmann was never satisfied with the career, as the competitive hustle for upward mobility within the ranks of the state bureaucracy left the young man cold.[50] Pressed by a colleague about his reticence to participate in the "extracurricular" activities deemed necessary for professional advancement, Luhmann replied laconically: "*Ich lese Hölderlin*."[51] And indeed, he dedicated his free time after work to reading Descartes, Husserl, and sociological functionalism, and perhaps most importantly, building the first version of his famous *Zettelkasten*.[52] He even found the time to pen his first two academic articles in the field of administrative science.[53]

Although law may have struck the young Luhmann as a paradigm of order, he quickly became disenchanted with the methodological insularity of legal science, which he came to believe

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[42] Luhmann, "Es gibt keine Biografie: Niklas Luhmann im Radiogespräch mit Wolfgang Hagen," 17.
[43] Blanke, *Luhmann: "stattdessen ..."* 46.
[44] Luhmann, "Biographie, Attitüden, Zettelkasten," 131.
[45] Luhmann, 130; Luhmann, "Es gibt keine Biografie: Niklas Luhmann im Radiogespräch mit Wolfgang Hagen," 21; Blanke, *Luhmann: "stattdessen ..."* 47.
[46] See in particular Niklas Luhmann, *Theorie der Verwaltungswissenschaft* (Köln u. Berlin: Grote, 1966) This topic will be discussed in detail in Chapter Seven.
[47] Luhmann, "Biographie, Attitüden, Zettelkasten," 131–32.
[48] Constantin Goschler, *Schuld Und Schulden: Die Politik Der Wiedergutmachung Für NS-Verfolgte Seit 1945* (Göttingen: Wallstein, 2005).
[49] Niklas Luhmann, *Öffentlich-rechtliche Entschädigung rechtspolitisch betrachtet* (Berlin: Duncker & Humblot, 1965).
[50] Luhmann, "Biographie, Attitüden, Zettelkasten," 130.
[51] Luhmann, 132.
[52] Luhmann, "Es gibt keine Biografie: Niklas Luhmann im Radiogespräch mit Wolfgang Hagen," 29–30.
[53] Niklas Luhmann, "Der Funktionsbegriff in der Verwaltungswissenschaft," *Verwaltungsarchiv* 49 (1958): 97–105; Niklas Luhmann, "Kann die Verwaltung wirtschaftlich handeln?," *Verwaltungsarchiv* 51 (1960).

fundamentally misunderstood *how* law procured social order. Law nevertheless—or perhaps on account of this fact—remained one of the most consistently central subjects of Luhmann's scholarly work.[54] Specifically, he felt that administrative reforms were needed to address the shortcomings he witnessed in his time as a civil servant, but he was also convinced that the juristic training and perspective of German administrative science would continue to inhibit the necessary structural reforms. For this task, modern—and for Luhmann in the 1960's this meant *American*—social science appeared the best bet. And so in 1960 the bored administrator eagerly availed himself of the opportunity to take a state stipend to study a year at Harvard's Graduate School of Public Administration, but which he spent mostly listening to and conversing with Talcott Parsons.

Shortly after returning from his Harvard sabbatical Luhmann found a new posting at the Speyer Academy for Administrative Science [*Hochschule für Verwaltungswissenschaft*], which struck him as an escape hatch from what he realized by the late 1950's was a dead-end career.[55] Created under the auspices of the French occupation in 1947, the Speyer Academy soon became the central post-graduate institution for training civil servants. The various state governments would send *Referendare*, young bureaucrats in a probationary period who already possessed university degrees, to Speyer to study for a semester. But it also maintained a center for research in administrative science, the Institute for Research and Information, where Luhmann worked from 1962-1964.[56]

Luhmann arrived at the same moment the Speyer Academy underwent a change of leadership, marked by the arrival of Morstein Marx, who was also just returning to Germany from the United States. Unlike Luhmann, however, Morstein Marx came back after a nearly thirty-year displacement, having fled the Nazis in 1933 for the United States, where he eventually came to find a position working in administrative science at Princeton. Having published several influential studies in the 1950's, he returned to West Germany to chair the Academy at Speyer as a Professor of Comparative Legal Science and Public Law.[57] For Morstein Marx, Speyer offered an unparalleled opportunity to reform what he felt were antiquated German administrative practices by revamping how it was researched. Although appealing to the spirit of cameralism and the famous nineteenth-century German administrative scientist, Lorenz von Stein, Morstein-Marx aimed to introduce contemporary administrative-scientific research methods from the United States to Germany, where their results could be used not only, he hoped to influence policy, but to train future generations of civil servants.[58]

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[54] The core works on law include Luhmann, *Öffentlich-rechtliche Entschädigung rechtspolitisch betrachtet*; Niklas Luhmann, *Grundrechte als Institution: ein Beitrag zur politischen Soziologie* (Berlin: Duncker & Humblot, 1974) (Originally published in 1965); Niklas Luhmann, *Recht und Automation in der öffentlichen Verwaltung.* (Berlin: Duncker & Humblot, 1966); Niklas Luhmann, "Gesellschaftliche und politishe Bedingungen des Rechtsstaates," in *Politische Planung: Aufsätze zur Soziologie von Politik und Verwaltung*, 1971; Niklas Luhmann, "Funktionen der Rechtsprechung im politischen System," in *Politische Planung: Aufsätze zur Soziologie von Politik und Verwaltung*, 1971; Niklas Luhmann, "Positives Recht und Ideologie," in *Soziologische Aufklärung 1: Aufsätze zur Theorie sozialer Systeme* (Wiesbaden: VS Verlag für Sozialwissenschaften, 2009) (Originally published in 1968); Luhmann, *Kontingenz und Recht* (Unpublished manuscript, originally composed circa 1971); Niklas Luhmann, *Rechtssoziologie* (Wiesbaden: VS Verlag für Sozialwissenschaften, 1983); translated as Luhmann, *A Sociological Theory of Law*; Niklas Luhmann, *Das Recht der Gesellschaft*, 1. edition (Frankfurt am Main: Suhrkamp Verlag, 1995); translated as Niklas Luhmann, *Law as a Social System*, ed. Fatima Kastner, trans. Klaus A. Ziegert, Oxford Socio-Legal Studies (Oxford ; New York: Oxford University Press, 2004).

[55] Luhmann, "Es gibt keine Biografie: Niklas Luhmann im Radiogespräch mit Wolfgang Hagen," 32.

[56] Fritz Morstein Marx, "German Administration and The Speyer Academy," *Public Administration Review* 27, no. 5 (1967): 403–10.

[57] Fritz Morstein Marx, *The Administrative State; an Introduction to Bureaucracy*, The Chicago Library of Comparative Politics (Chicago: University of Chicago Press, 1957); Fritz Morstein Marx, *Elements of Public Administration* (Englewood Cliffs, N.J: Prentice-Hall, 1959).

[58] Morstein Marx, "German Administration and The Speyer Academy," 407.

Morstein Marx's central concern in introducing new social scientific methods was to challenge the overwhelming hegemony of jurisprudence in the conceptual universe of the civil service. German public administration had long been characterized above all by a peculiarly legalistic self-understanding, propped up by its reliance on a professional staff trained almost exclusively in law.[59] This meant that even in the homeland of Max Weber, the sociology of bureaucracy had virtually no impact on the actual structure and behavior of German public administration by the early 1960's.[60] It was only in the 1950's that empirical research on bureaucratic organization began to take shape, spearheaded primarily by young sociologists like Renate Mayntz, many of whom spent significant time in the United States.[61] Having fallen into an academic position almost by chance, Luhmann soon joined their ranks.

According to interviews given in the 1980's Luhmann's did not intend to launch a traditional academic career out of his stint at Speyer—research divorced from praxis, not teaching, he reflected, had made for the allure of his position.[62] But while he was there he began publishing articles in rapid succession, including a programmatic essay on the functional method he would continue to cite for the rest of his career.[63] Luhmann also completed his first manuscripts during his Speyer stint, including the highly-regarded *Functions and Consequences of Formal Organization* (1964) and *Basic Rights as an Institution* (1965).

The minor success of *Functions and Consequences* drew the attention of no less a figure than Helmut Schelsky, one of the most well-connected and influential sociologists of the day, which resulted in an invitation to Luhmann to take up a position at the Center for Social Research at the University of Münster at Dortmund in 1965. During his three years in Dortmund Luhmann published some of his most important and programmatic works, and most importantly, *Kontingenz* first entered his theoretical lexicon. It was first clearly announced in the essay "Sociological Enlightenment," an expansion of the Habilitation lecture he delivered before the Faculty of Legal and Political Sciences in January 1967.[64] Setting out a provocative new account of the task of contemporary sociology, the essay would later lend its title to the series of collected essays, which eventually stretched into six volumes published between 1970 and 1995.[65]

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[59] David F. Lindenfeld, *The Practical Imagination: The German Sciences of State in the Nineteenth Century* (Chicago: University of Chicago Press, 1997); Wolfgang Seibel, "Administrative Science as Reform: German Public Administration," *Public Administration Review* 56, no. 1 (1996): 74–81; Wolfgang Seibel, *Verwaltung verstehen: eine theoriegeschichtliche Einführung*, 2200 (Berlin: Suhrkamp, 2016); Michael Stolleis, *Public Law in Germany: A Historical Introduction from the 16th to the 21st Century*, trans. Thomas Dunlap, 2017.

[60] According to Wolfgang Seibel, "Weber's ideal-typical concept of modern bureaucracy never gained influence in the discipline that actually shaped doctrine building in German administrative science most: public law jurisprudence." Wolfgang Seibel, "Beyond Bureaucracy—Public Administration as Political Integrator and Non-Weberian Thought in Germany," *Public Administration Review* 70, no. 5 (2010): 726.

[61] Renate Mayntz, *Die soziale Organisation des Industriebetriebes* (Stuttgart: Enke, 1958); Renate Mayntz, *Soziologie Der Organisation*, Rowohlts Deutsche Enzyklopädie (Hamburg: Rowohlt, 1963); Renate Mayntz, "Mein Weg zur Soziologie: Rekonstruktion eines kontingenten Karrierpfades," in *Wege zur Soziologie nach 1945: autobiographische Notizen*, ed. Christian Fleck (Opladen: Leske + Budrich, 1996).

[62] Luhmann, "Biographie, Attitüden, Zettelkasten," 135.

[63] Niklas Luhmann, "Funktion und Kausalität," *Kölner Zeitschrift für Soziologie und Sozialpsychologie* 14 (1962): 617–44; Reprinted in Niklas Luhmann, "Funktion und Kausalität," in *Soziologische Aufklärung 1: Aufsätze zur Theorie sozialer Systeme* (Wiesbaden: VS Verlag für Sozialwissenschaften, 2009); Niklas Luhmann, "Wahrheit und Ideologie," in *Soziologische Aufklärung 1: Aufsätze zur Theorie sozialer Systeme* (Wiesbaden: VS Verlag für Sozialwissenschaften, 2009); Niklas Luhmann, "Einblicke in Vergleichende Verwaltungswissenschaft," *Der Staat* 2, no. 4 (1963): 494–500; Niklas Luhmann, "Zweck — Herrschaft — System: Grundbegriffe und Prämissen Max Webers," *Der Staat* 3, no. 2 (1964): 129–58; Luhmann, *Der Neue Chef*; Niklas Luhmann, "Lob Der Routine," *Verwaltungsarchiv* 55 (1964): 1–33.

[64] Blanke, *Luhmann: "stattdessen ...,"* 60; Niklas Luhmann, "Soziologische Aufklärung," *Soziale Welt* 18 (1967): 97–123.

[65] Niklas Luhmann, "Soziologie als Theorie sozialer Systeme," in *Soziologische Aufklärung 1: Aufsätze zur Theorie sozialer Systeme* (Opladen: VS Verlag für Sozialwissenschaften, 2009); Niklas Luhmann, *Soziologische Aufklärung 2: Aufsätze zur*

It was the next step in his career, however, for which Luhmann is best known. Schelsky, who was on the board responsible for creating the new university in Bielefeld, showed his faith in the young scholar by appointing him to the first chair in sociology at the reform university in 1968, a post he would hold until his death in 1998. For German sociologists and theorists, "Bielefeld" and its originally interdisciplinary mission became virtually synonymous with the name Niklas Luhmann, while his academic career, in turn, is frequently presented as if it were coextensive with his thirty-year tenure.[66] This is despite the fact that Luhmann never himself identified with the institution, and lamented that the university quickly forfeited its original mission.[67]

Of decisive importance for the rapid "take off" of his career, however, was the brief interlude Luhmann spent at the University of Frankfurt during the Winter semester of 1968-69 before assuming his position at Bielefeld. For all his hostility to Frankfurt School Critical Theory, he may have owed his larger than life academic success to Frankfurt nearly as much as he did to Schelsky's machinations. Adorno, Habermas, and some of their students sensed something promising for the Left in his systems theory, a rigorous theory of society that was philosophically sophisticated, anti-positivist, and in touch with the cutting edge of American sociology.[68] And so in the still tumultuous aftermath of the summer of 1968, with students still actively revolting, Luhmann arrived to substitute for none other than Adorno. In December he had presented another signal essay at the annual German Sociological Conference in Frankfurt chaired by Adorno,[69] and now found himself sitting across the dinner table drinking wine with the Critical Theorist to discuss the upcoming semester—a strange little vignette recounted second-hand by Alexander Kluge.[70]

In an ironic twist of fate, it was Habermas the theorist of emancipation, who offered the lecture course on the sociology of bureaucracy, while Luhmann, who had written several books on bureaucracy, lectured on the topic of "love."[71] Most important of all, however, was that Luhmann's time in Frankfurt sparked a well publicized debate between Habermas and Luhmann, which burst upon the intellectual scene on the form of the trendy little red 1971 Surhkamp volume, *Theory of Society or Social Technology: What Does Systems Research Accomplish?* (discussed in Chapter 10).[72] That it contained Luhmann's most explicit discussion of *Kontingenz* so far didn't really register to anyone at

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Theorie der Gesellschaft, 6th ed. (Wiesbaden: VS Verlag für Sozialwissenschaften, 2009); Niklas Luhmann, *Soziologische Aufklärung 3: Soziales System, Gesellschaft, Organisation* (Wiesbaden: VS Verlag für Sozialwissenschaften, 2009); Niklas Luhmann, *Soziologische Aufklärung 4: Beiträge zur funktionalen Differenzierung der Gesellschaft* (Wiesbaden: VS Verlag für Sozialwissenschaften, 2009); Niklas Luhmann, *Soziologische Aufklärung 5: Konstruktivistische Perspektiven* (Wiesbaden: VS Verlag für Sozialwissenschaften, 2009); Niklas Luhmann, *Soziologische Aufklärung 6: Die Soziologie und der Mensch* (Wiesbaden: VS Verlag für Sozialwissenschaften, 2009).

[66] On the intellectual historical significance of Bielefeld, see Sonja Asal and Stephan Schlak, eds., *Was war Bielefeld?: eine ideengeschichtliche Nachfrage*, Marbacher Schriften, neue Folge 4 (Göttingen: Wallstein, 2009).

[67] Luhmann, "Biographie, Attitüden, Zettelkasten," 141.

[68] Luhmann, 125.

[69] Niklas Luhmann, "Modern Systemtheorien als Form gesamtgesellschäftlicher Analyse," in *Spätkapitalismus oder Industriegesellschaft?: Verhandlungen des 16. Deutschen Soziologentages*, ed. Theodor W Adorno (Stuttgart: Ferdinand Enke, 1969); Later published as the opening essay of Luhmann's debate with Habermas, Niklas Luhmann, "Moderne Systemtheorien als Form gesamtgesellschaftlicher Analyse," in *Theorie der Gesellschaft oder Sozialtechnologie: Was leistet die Systemforschung*, by Jürgen Habermas and Niklas Luhmann, ed. Karl Markus Michel, Auflage: 2. (Frankfurt a.M.: Suhrkamp, 1974).

[70] Alexander Kluge, *Das Labyrinth Der Zärtlichen Kraft: 166 Liebesgeschichten*, 1. Aufl (Frankfurt am Main: Suhrkamp, 2009).

[71] Parts of the lecture course have been preserved and recently published as Niklas Luhmann, *Liebe: Eine Übung*, ed. André Kieserling, 1. Aufl (Frankfurt am Main: Suhrkamp, 2008); Over a decade later Luhmann would expand the theme into an entire book: Niklas Luhmann, *Liebe als Passion.: Zur Codierung von Intimität.* (Suhrkamp Verlag KG, 1982); Niklas Luhmann, *Love as Passion: The Codification of Intimacy* (Stanford, Calif.: Stanford University Press, 1998).

[72] Jürgen Habermas and Niklas Luhmann, *Theorie der Gesellschaft oder Sozialtechnologie: Was leistet die Systemforschung?*, ed. Karl Markus Michel (Frankfurt am Main: Suhrkamp, 1971).

the time. What mattered most was that Luhmann shared the spotlight with one of the Federal Republic's most recognizable intellectual figures, his name on a book on the shelves of countless aspiring intellectuals. The publicity generated by the debate helped catapult Luhmann into academic stardom, part of a gradual shift in the Suhrkamp culture in the 1970's and 1980's from Frankfurt to Bielefeld.[73] And although the two found little common ground in the text of their debate, Habermas took the challenge seriously enough that he sought to defuse the threat posed by Luhmann's systems theory by incorporating aspects of it into his own theory of communicative action.[74] The two became symbols of two sides of intellectual life in the Federal Republic, two competing theoretical cultures. It also may have consigned Luhmann to the fate of being perceived as a conservative public intellectual.

c. Science, Politics, Morality, and Irony: Luhmann's Cautious Crypto-Conservatism

Officially, Luhmann rejected the public role into which he had so suddenly been cast. He was quite explicit about his aversion to the figure of the "public intellectual," whom he viewed as a mere product of the mass media. Instead, Luhmann appealed to the rhetoric of modesty to position himself as the consummate *Fachmann*, not looking for fame or "elite" status: "I simply want to do my job well [*meine Fachsache gut machen*]," he explained.[75] Of course, such modesty was no doubt performative.[76] It belonged to his larger arc of having been cast as the bête noire of Habermasian Critical Theory, a foil he relished and strategically exploited to gain a certain visibility for his lifelong project, while explicitly eschewing the publicity he garnered. He was better served by remaining partially in the shadows, his reputation as a risqué thinker circulated in bars as a "*Geheimtipp*" ("secret tip") among the younger intellectuals of the Federal Republic in the 1970's and 80's.[77] Luhmann took evident delight in playing the provocateur, inverting common assumptions with ironic aplomb and a wry smile.[78] This was part of his appeal: counterintuitive as it may seem to an American audience easily repulsed by his dry, mechanical prose, Kieserling has noted that the bulk of his most celebrated students emigrated to Bielefeld from origins in Frankfurt because Luhmann appeared more radical and interesting, the kind of *Schriftsteller* Frankfurt had lost upon Adorno's death.[79]

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[73] Nikolaus Wegmann, "Wie kommt die Theorie zum Leser? Der Suhrkamp Verlag und der Ruhm der Systemtheorie," *How Does Theory Find Its Readers? The Suhrkamp Publishing House and the Fame of Systems Theory.* 16, no. 2 (September 2010): 463–70.

[74] Habermas, *Legitimation Crisis*; Jürgen Habermas, *The Theory of Communicative Action, Volume 1: Reason and the Rationalization of Society*, trans. Thomas McCarthy (Boston: Beacon Press, 1985); Habermas, *The Theory of Communicative Action, Volume 2*.

[75] Dammann, *Wie halten Sie's mit Außerirdischen, Herr Luhmann?*, 33.

[76] Michael King and Anton Schütz, "The Ambitious Modesty of Niklas Luhmann," *Journal of Law and Society* 21, no. 3 (1994): 261–87.

[77] Philipp Felsch, *Der lange Sommer der Theorie: Geschichte einer Revolte*, 3rd ed. (München: C.H.Beck, 2015).

[78] Perhaps nothing represented this better than his late sympathy for the "devil," which he took as a paradigm of "second-order observation." For example, see Niklas Luhmann, "Paradigm Lost: On the Ethical Reflection of Morality: Speech on the Occasion of the Award of the Hegel Prize 1988," *Thesis Eleven* 29, no. 1 (January 1, 1991): 82–94; Niklas Luhmann and Robert Spaemann, eds., *Paradigm Lost, Über Die Ethische Reflexion Der Moral*, 1. Aufl, Suhrkamp Taschenbuch Wissenschaft (Frankfurt am Main: Suhrkamp, 1990); Patrick Bahners, "Des Teufels Generalist: 'Ich denke primär historisch': Niklas Luhmann, Soziologe des Risikos und Historiker der Sorglosigkeit," *Frankfurter Allgemeine Zeitung*, December 29, 1992; Hans-Martin Kruckis, "Abgründe des Komischen. Schlaglichter auf Luhmanns Humor," in *"Gibt es eigentlich den Berliner Zoo noch?": Erinnerungen an Niklas Luhmann*, ed. Theodor M. Bardmann and Dirk Baecker (Konstanz: UVK, Universitätsverlag Konstanz, 1999), 174–78; Peter Sloterdijk, "Luhmann, Anwalt des Teufels: Von Erbsünde, dem Egoismus der Systeme und den neuen Ironie," in *Luhmann Lektüren*, ed. Dirk Baecker, Wolfram Burckhardt, and Niklas Luhmann (Berlin: Kulturverlag Kadmos, 2010).

[79] According to Kieserling, several of them even mistook Luhmann for a student of Habermas's, a result of their names having shared the cover of *Theory of Society or Social Technology?*, which made it look like a coauthored volume when it was,

That Luhmann could be viewed as risqué is remarkable given that he performed the role of the consummate academic, almost to the point of parody—or perhaps, *precisely* to the point of parody. Luhmann was well known for a dry and ironic sense of humor easily lost in translation. For example, when pressed by an interviewer on his desires, he replied that his only wish would be "to have more time… too have a thirty hour day, while others would only have twenty-four. Everyone else would then always be sleeping, while I'm still doing everything possible."[80]

Luhmann's pervasive irony means we have to take care not to leap to conclusions when interpreting some of his more brash pronouncements. For example, and closely connected to his self-presentation as a mere scientist, were his notorious claims about public intellectuals and the connection between politics, science and morality. Luhmann's aversion to normative sociology has become one of his signature characteristics, leading one commentator to refer to the "higher amorality" of his systems theory.[81] He was of the opinion that a theory of society without "normative foundations" was a real possibility. But of course, he qualified, "it depends on what one means by normative." Luhmann didn't deny that one's personal convictions could have no causal bearing on theory whatsoever, but he rather thought that constructing a social theory upon the *basis* of a normative conviction could only lead to designating all opponents who disagree as enemies.[82] The primary obstacle to good social science, he breathlessly complained, was that firm commitment to specific a priori normative convictions, which Critical Theory exemplified.

Luhmann complained that Critical Theory was not only bad science, but that it was also ineffective and futile from the standpoint of political praxis. "Critical theory is not complex enough to provoke anything more than behaviors of protest or resignation," he argued, while "Habermas's path of discussing and synthesizing different theories has so far not led to his own systematic position."[83] This was above all due to its "moralism." "Habermas's problem" which Luhmann took to be representative of broad swaths of the Left, "consists in the fact that his thought is organized around a moralistic commitment to the theory of society." The problem with this moral standpoint was that "one cannot really see the money economy, the law or political machinery;" at best it would allow only allow one to "see them negatively and critically refuse them."[84]

Luhmann conceded that, as a form of politics, such moral bluntness might have the advantage of generating attention and engagement, making sure society remained "sensitive" to certain problems, and thus contributing to a healthy public sphere. But moralism, in both politics and science, also diluted their "realism," which fatally compromised their capacity to improve things. While sympathetic to the need to reform crucial aspects of higher education, Luhmann had little patience for the student protestors in the late 1960's, a sentiment he continued to voice with respect to the "new social movements" of the 1980's.[85] He felt that the "moral refusal" the protestors embodied simply "neglected to study the actual relations of the Nazi-era, in order to see how one could prevent something like that from ever happening again." The moralism of the Left could not

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in fact, a compendium of their debate! Personal conversation with André Kieserling, 13 July 2016, Bielefeld. Habermas and Luhmann, *Theorie der Gesellschaft oder Sozialtechnologie: Was leistet die Systemforschung?*

[80] Luhmann, "Biographie, Attitüden, Zettelkasten," 139.

[81] Sighard Neckel and Jürgen Wolf, "The Fascination of Amorality: Luhmann's Theory of Morality and Its Resonances among German Intellectuals," *Theory, Culture & Society* 11, no. 2 (May 1, 1994): 69–99; Luhmann used this phrase with reference to the role of politicians. See Niklas Luhmann, "Die Ehrlichkeit der Politiker und die höhere Amoralität der Politik," in *Die Moral der Gesellschaft*, ed. Detlef Horster (Frankfurt am Main: Suhrkamp, 2016), 163–74.

[82] Luhmann, "Es gibt keine Biografie: Niklas Luhmann im Radiogespräch mit Wolfgang Hagen," 44.

[83] Luhmann, "Biographie, Attitüden, Zettelkasten," 126.

[84] Luhmann, 126–27.

[85] Luhmann, "Es gibt keine Biografie: Niklas Luhmann im Radiogespräch mit Wolfgang Hagen," 34; Niklas Luhmann, *Protest: Systemtheorie und soziale Bewegungen*, ed. Kai-Uwe Hellmann (Suhrkamp, 1996).

help but reduce complex issues to slogans or "resentment concepts like 'exploitation.'"[86] Tirelessly repeating "'never again Auschwitz,' is obviously not enough," he added. "Obviously it won't come again in that form, but it will come in other forms. That was one of the points this intellectual movement confronted: too little political realism."[87] Of course, Luhmann himself never seemed interested in offering his own theory of National Socialism, and rarely even mentioned apart from the occasional allusion in a footnote, or when pressed in interviews.

Luhmann's take on the environmental movement in the 1980's followed a similar pattern. In the 1986 book *Ecological Communication* Luhmann chastised the Green party and the environmental movement broadly, not because he thought they were making much ado about nothing, but quite the opposite: Luhmann felt that they misunderstood the social challenges involved in preventing ecological collapse, and so was far less sanguine than the Greens about the possibilities for adequately addressing them.[88] Or, to use another example, Luhmann claimed to oppose the anti-nuclear movement in the 1980's not because he was pro-war or even anti-communist, but because he felt that it could somehow make war more, not less likely—or at the very least, it did nothing to stop wars in general. He charged that attention to sensationalistic themes like nuclear catastrophe risked overshadowing more likely and equally apocalyptic scenarios: already in 1985, for example, he worried about antibiotic-resistant bacteria.[89] Giving fodder to critics who saw him as little more than an apologist for technocracy, he proposed that the Cold War opposition between communism and liberalism to be just another anachronism of the nineteenth-century, whose respective positions had been "exhausted."[90] Although two decades earlier he had insisted on the continued relevance of ideology to modern societies, this position seemed to many to hew all too closely to the "end of ideology" thesis of the 1950's and 60's.[91] In other words, Luhmann's reputation as a conservative was not simply manufactured by Habermas and company.

Nevertheless, Luhmann consistently disputed the accusation that his theory was inherently conservative.[92] Like many members of his generation, Luhmann initially had some affinity with the Social Democratic Party (SPD) in the 1960's, working with the Committee of Social Democratic

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[86] Luhmann, "Es gibt keine Biografie: Niklas Luhmann im Radiogespräch mit Wolfgang Hagen," 41.

[87] Luhmann, 34.

[88] Niklas Luhmann, *Ecological Communication* (Chicago: University of Chicago Press, 1989).

[89] Luhmann, "Biographie, Attitüden, Zettelkasten," 154.

[90] Luhmann would likely clarify that he though the distinction relevant to politics as a practical matter, even while he held it to be "theoretically meaningless [*unsinnig*]." Luhmann, 153.

[91] Luhmann, "Wahrheit und Ideologie"; Luhmann, "Positives Recht und Ideologie"; Gerhards, *Wahrheit und Ideologie*; Edward Shils, "'The End of Ideology?' By Edward Shils, Encounter, November 1955," UNZ.org, accessed November 13, 2017, http://www.unz.org/Pub/Encounter-1955nov-00052; Daniel Bell, *The End of Ideology: On the Exhaustion of Political Ideas in the Fifties* (Glencoe, IL: Free Press, 1960); Chaim I Waxman, *The End of Ideology Debate,* (New York: Funk & Wagnalls, 1969); Iain Stewart, "The Origins of the 'End of Ideology?' Raymond Aron and Industrial Civilization," 2015, 177–90, https://doi.org/10.1007/978-1-137-52243-6_14.

[92] For commentary on Luhmann's political stance, see Kai-Uwe Hellmann, Karsten Fischer, and Harald Bluhm, eds., *Das System Der Politik: Niklas Luhmanns Politische Theorie*, 1. Aufl (Wiesbaden: Westdeutscher Verlag, 2003); Joohyung Kim, "The Social and the Political in Luhmann," *Contemporary Political Theory* 14, no. 4 (November 1, 2015): 355–76, https://doi.org/10.1057/cpt.2014.53; Stefan Lange, *Niklas Luhmanns Theorie Der Politik: Eine Abklärung Der Staatsgesellschaft* (Wiesbaden: Westdeutscher Verlag, 2003); King and Thornhill, *Niklas Luhmann's Theory of Politics and Law*; King and Thornhill, *Luhmann on Law and Politics*; Chris Thornhill, "Niklas Luhmann's Political Theory: Politics after Metaphysics?," in *Luhmann on Law and Politics: Critical Appraisals and Applications*, ed. Michael King and C. J. Thornhill, Oñati International Series in Law and Society (Oxford ; Portland, Or: Hart, 2006); Chris Thornhill, "Luhmann and Marx: Social Theory and Social Freedom," in *Luhmann Observed: Radical Theoretical Encounters*, ed. Anders La Cour and Andreas Philippopoulos-Mihalopoulos, 2013; Moeller, *Luhmann Explained*, 99–117; Philippopoulos-Mihalopoulos, *Niklas Luhmann*; Wolfgang. Hagen and Dirk Baecker, eds., "'Was ist Politik' - oder war Luhmann doch unpolitisch? Dirk Baecker, Herfried Münkler im Gespräch mit Wolfgang Hagen," in *Was tun, Herr Luhmann?: vorletzte Gespräche mit Niklas Luhmann* (Berlin: Kulturverlag Kadmos, 2009).

Jurists [*Arbeitsgemeinschaft sozialdemokratischer Juristen*], before moving into the orbit of the Christian Democrats (CDU) in the 1970's.[93] But he also maintained that ever since his days as a civil servant, he had generally avoided affiliating officially with any party, and saw this as a the mark of his superior scholarly disposition.[94] Moreover, he considered "conservatism" an anachronism, a paradoxical stance in the contemporary world. "If one is actually conservative," he explained, "then in light of all the diverse changes today one would have to change an enormous amount in order to preserve something."[95] Other times he simply viewed it as one side of the "political code," which helped orient and organize political communication by assigning all of its possible themes to one side or the other of the "progressive/conservative" distinction.[96] As such, he felt that he had been labeled a conservative by progressives—namely, the Frankfurt School—simply because his ideas did not fit within their dogmatic "theory figures [*Theoriefiguren*]."[97] What might easily seem a baseless complaint appears all the more plausible given that, around the same time, Habermas had also maligned Foucault and Derrida, among other French poststructuralists, for harboring neo-conservative affinities (Habermas called them "young conservatives").[98] Luhmann thus turned the tables, chiding the Frankfurt School for its "moral conservatism," characteristic of "an old European configuration."[99]

For Luhmann "moralism" meant a kind of fundamentalism, although not exactly in the sense that it led to *Schwärmerei*, the "fanaticism" of which "apolitical" Germans had complained since Kant—although Luhmann no doubt inherited that austere sensibility of the German Enlightenment.[100] Rather, Luhmann took exception to morality because it rested on an absolute distinction between good and bad, good and evil. While this distinction has its uses in the interpersonal context in which it first evolved as a criterion for apportioning respect to concrete human beings, when applied to large, complex and impersonal systems, morality becomes a crude and clumsy tool with which to evaluate reality. As society was composed out of multifarious distinctions, it made little sense, he thought, to believe that one universal distinction generated within society should somehow override all the others.[101] Solving problems would always be contextual and historical, dependent on the specific subsystem in which it appeared.

Luhmann's conception of the task of a theory of society therefore appealed to a familiar trope in German intellectual history of the "unpolitical man." Or, more precisely, Luhmann's conception of sociology combined Thomas Mann's famous defense of the apolitical with Max

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93 Luhmann, "Biographie, Attitüden, Zettelkasten," 136.
94 Luhmann, "Es gibt keine Biografie: Niklas Luhmann im Radiogespräch mit Wolfgang Hagen," 28.
95 Luhmann, "Biographie, Attitüden, Zettelkasten," 152.
96 Niklas Luhmann, "Der politische Code: 'Konservativ' und 'progressiv' in systemtheoretischer Sicht," *Zeitschrift für Politik* 21, no. 3 (1974): 253–71; See also Niklas Luhmann, *Political Theory in the Welfare State* (Berlin ; New York: W. de Gruyter, 1990); Reiner Grundmann, *Luhmann Conservative, Luhmann Progressive* (Badia Fiesolana, San Domenico (FI), Italy: European University Institute, Dept. of Law, 1990).
97 Luhmann, "Biographie, Attitüden, Zettelkasten," 152.
98 Jürgen Habermas, *The Philosophical Discourse of Modernity: Twelve Lectures*, trans. Frederick G. Lawrence (Cambridge, Mass.: The MIT Press, 1990); Jürgen Habermas, *The New Conservatism: Cultural Criticism and the Historians' Debate*, trans. Shierry Weber Nicholsen (Cambridge, Mass: MIT Press, 1989).
99 Luhmann, "Biographie, Attitüden, Zettelkasten," 152.
100 Norbert Hinske, "Die Aufklärung Und Die Schwärmer — Sinn Und Funktionen Einer Kampfidee," *Aufklärung* 3, no. 1 (1988): 3–6.
101 Luhmann's most important writings on morality have been recently collected in Luhmann, *Die Moral der Gesellschaft*; In English, see Luhmann, "Paradigm Lost"; Niklas Luhmann, "The Sociology of the Moral and Ethics," *International Sociology* 11, no. 1 (March 1, 1996): 27–36; For a few commentaries, see Alejandro Navas, "Der Begriff der Moral bei Niklas Luhmann," *Jahrbuch für Recht und Ethik / Annual Review of Law and Ethics* 1 (1993): 293–304; Neckel and Wolf, "The Fascination of Amorality"; Hans-Ulrich Dallmann, "Niklas Luhmann's Systems Theory as a Challenge for Ethics," *Ethical Theory and Moral Practice* 1, no. 1 (1998): 85–102.

Weber's distinction between the respective vocations of "science" and "politics," and adapted it to his description of modern society as functionally differentiated.[102] While he chastised political actors for their moralism, recalling Weber's distinction between the "ethic of absolute ends" and the "ethic of responsibility," he felt that it was the duty of scientists to avoid both moral judgment and political pronouncement. In other words, public intellectuals he saw as a betraying their vocation. Luhmann thus cleaved strongly to an older notion of the scientific ethos, presenting his task as one of a neutral, apolitical observer of society. But not because he thought himself a "free floating intellectual" with a privileged "view from nowhere": it was precisely because he followed what he considered the internal "codes" of the science system that his work had to respect the boundaries separating it from its neighboring subsystems of politics, economics.[103] As his student Dirk Baecker recently put it, "we do sociology for sociologists, as *l'art pour l'art*."[104]

For this reason, Luhmann could argue that it wasn't so much the case that he "didn't tolerate" morality, for it had its place *in* society, but rather he simple wanted to "demote" it with respect to the theory of society.[105] And it didn't mean that he refused all sensitivity to suffering and injustice in the world. In the 1990's he made several references to his impression upon seeing the ghastly conditions in the favelas (slums) surrounding South American cities.[106] It was simply that the complexity of modern society had made it futile and even meaningless to render total judgment on it, whether from the Left or the Right, because there was simply *more of everything*. As Luhmann expressed it in an interview, "I feel that our society has more positive and more negative qualities than any previous society. Today things are therefore better and worse at the same time. This can be described much more accurately than usual, but can't be added up to a total judgment."[107] For this reason, he simply opposed every form of "'we-will-make-it-better' politics."[108] While it may be the case that "we can't improve society" as whole, it was nevertheless still "possible to attenuate specific exclusions, which arise," for example, "whenever someone simply doesn't have an income."[109] Or as Luhmann put it already in 1967 in "Sociological Enlightenment," "The world may have developed absolutely contingently. Therefore everything can be changed—just not all at once."[110]

And so if Luhmann permitted anything like the "ethical" in social theory, it would be to pursue the question, "what do we do with the excluded, who don't agree[?]" For Luhmann, every moralistic distinction simply placed someone back in the excluded sphere of "evil." The ability to refuse, to say *no*, the freedom to negate lay at the foundations of social order in the figure of the

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[102] Thomas Mann, *Betrachtungen eines Unpolitischen* (S. Fischer, 1922); Max Weber et al., *The Vocation Lectures* (Indianapolis: Hackett Pub, 2004).

[103] For Luhmann's views on the system of science, see Niklas Luhmann, "Die gesellschaftliche Verantwortung der Soziologie," in *Wissenschaft und gesellschaftliche Verantwortung: Ringvorlesung der Hochschule Lüneburg*, ed. Wolf von Baudissin and Helmut de Rudder (Berlin: Berlin-Verl., 1987); Niklas Luhmann, *Die Wissenschaft der Gesellschaft* (Suhrkamp, 1992); Niklas Luhmann, "Selbststeuerung der Wissenschaft," in *Soziologische Aufklärung 1: Aufsätze zur Theorie sozialer Systeme* (Wiesbaden: VS Verlag für Sozialwissenschaften, 2009); Rudolf Stichweh, "Self-Organization and Autopoiesis in the Development of Modern Science," in *Selforganization: Portrait of a Scientific Revolution*, ed. Wolfgang Krohn, Günter Küppers, and Helga Nowotny (Dordrecht: Springer Netherlands, 1990); Rudolf Stichweh, "Science in the System of World Society," *Social Science Information* 35, no. 2 (June 1, 1996): 327–40, https://doi.org/10.1177/053901896035002009.

[104] Hagen and Baecker, "'Was ist Politik' - oder war Luhmann doch unpolitisch? Dirk Baecker, Herfried Münkler im Gespräch mit Wolfgang Hagen," 139.

[105] Luhmann, "Es gibt keine Biografie: Niklas Luhmann im Radiogespräch mit Wolfgang Hagen," 42.

[106] Luhmann, 39.

[107] Luhmann, "Biographie, Attitüden, Zettelkasten," 139.

[108] Luhmann, "Es gibt keine Biografie: Niklas Luhmann im Radiogespräch mit Wolfgang Hagen," 41.

[109] Luhmann, 40.

[110] Niklas Luhmann, "Soziologische Aufklärung," in *Soziologische Aufklärung 1: Aufsätze zur Theorie sozialer Systeme* (Wiesbaden: VS Verlag für Sozialwissenschaften, 2009), 109.

"double contingency" through which social systems evolve. Simply "refusing" society out of protest was therefore legitimate. It would be more effective, however, if it negated something more specific.

Nevertheless, for all his appeal as a radical provocateur and his openness to certain kinds of reformist impulses, his personal sensibilities were consistently of a cautious and conservative, but not especially reactionary nature. Luhmann's example from a 1985 interview is instructive: he took exception to politicians explicitly turning a blind eye to squatters in empty buildings, not because he thought squatting was intrinsically wrong, but simply because he felt that refusing to uphold the law undermined its basic functions. They should change the law, he argued, not simply refuse to enforce it. Luhmann was in this sense clearly a product of that early postwar era in West Germany that was defined, as historian Eckart Conze has recently put it, by its "search for security."[111] Luhmann clung to the law, to the protective comforts of functional differentiation, and thus to the norms of the "science system," because they promised to that modicum of regularity and predictability that held the specter of arbitrariness at bay. In Baecker's words, "Luhmann understood his own theory politically in the sense of a plea for the societal advantages of a politics in the subdued style of the Federal Republic."[112] The experience of arbitrariness—the absurdity and groundlessness of the "vertical dimension" of contingency—this was the one thing he feared the most. Nothing troubled Luhmann so much as the specter of "dedifferentiation" of society and the arbitrariness it would release. And this arbitrariness—not the moral problem of *evil*—was the experience he identified with his childhood under Hitler:

> Before 1945 one had indeed hoped that after the abolishment of the apparatus of coercion that everything would return to order by itself. But the first thing I experienced in American captivity was someone taking my watch off my arm and beating me. It was therefore not at all what I had previously thought. And so one soon saw that the comparison of political regimes could not proceed on the axis "good/evil," but rather that one had to judge figures in within the constraints of their reality. Naturally I don't want to say that I regard the Nazi-epoch and the time after 1945 to be equivalent. But I was simply disappointed after 1945… In any case, for me the experience of the Nazi regime had not been moral one, but rather an experience of the arbitrary [*Willkürlichen*], of power, of the tactical evasions of the little man.[113]

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[111] Eckart Conze, *Die Suche nach Sicherheit: eine Geschichte der Bundesrepublik Deutschland von 1949 bis in die Gegenwart* (Siedler, 2009).

[112] Hagen and Baecker, "'Was ist Politik' - oder war Luhmann doch unpolitisch? Dirk Baecker, Herfried Münkler im Gespräch mit Wolfgang Hagen," 160.

[113] Luhmann, "Biographie, Attitüden, Zettelkasten," 129; Like many Germans, Luhmann alleged that he knew very little about the true extent of the Holocaust, particularly for Eastern European Jews. Luhmann explained in a later interview that the sense of injustice he experienced at the hands of the Americans was conditioned by this lack of knowledge. Only after he learned about them did he come to "have a certain understanding for why Germans were not at first treated like human beings." Luhmann, "Es gibt keine Biografie: Niklas Luhmann im Radiogespräch mit Wolfgang Hagen," 16.

2
Undoing the Cosmos
Hans Blumenberg and the Contingency of the Modern Age, 1947-1969

> In the Warsaw Ghetto there was, although it also existed elsewhere, something that belonged to the vocabulary of terrorism: a *contingent* of something. Contingents, which were to be arranged for transport into the uncertain-certainty. But there was also the mockery that terror cannot help but bestow on its victims: a contingent of exceptions, of *acte gratuit*, of mercy [*Gnade*]. In the figure of "life numbers," a contingent of forty thousand, to be distributed from those who could experience no greater torment than to distribute life privileges without possessing criteria for this dimension. Who may live, who may not? That's what it was about: to displace the immense guilt onto the other side. The Last Judgment [*Weltgericht*] as a bureaucratic act—that was degradation in the form of reprieve. Who may refuse, who may comply?
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> A small matter, to so take exception, exacerbates the mockery, the inhumanity, the uninformed bestiality: The contingent consists of numbers, and they are called "life numbers." Whoever had them could once again play God, could pin them to the father, to the brother, and board the freight car to Treblinka themselves instead. They all played out in their imaginations what was set in motion: the gift of life in the form of a number.
>
> Whether that will ever be outbid? Or has it already?
>
> Hans Blumenberg, "Kontingent"[1]

» Introduction «
Ambivalence

For the topic of the seventeenth and final meeting in 1994 of the famous West German interdisciplinary working group *Poetik und Hermeneutik* its illustrious organizers chose a concept which had by then become intimately associated for all those present with the towering figure of its absent and reclusive co-founder.[2] By the time the conference proceedings were published in 1998

[1] Hans Blumenberg, *Begriffe in Geschichten* (Suhrkamp, 1998), 103.

[2] For the history of the group, see Julia Amslinger, *Eine neue Form von Akademie: "Poetik und Hermeneutik" – die Anfänge* (Verlag Wilhelm Fink, 2017); Christopher Möllmann and Alexander Schmitz, "Editorial. »Es war einmal . . .«.Einige Distanz wahrende Annäherungen an die Forschungsgruppe »Poetik und Hermeneutik«," *Internationales Archiv für Sozialgeschichte der deutschen Literatur (IASL)* 35, no. 1 (2010): 46–52; Julia Wagner, "Anfangen. Zur Konstitutionsphase der Forschungsgruppe »Poetik und Hermeneutik«," *Internationales Archiv für Sozialgeschichte der deutschen Literatur (IASL)* 35, no. 1 (2010): 53–76; Walter Erhart, "»Wahrscheinlich haben wir beide recht«. Diskussion und Dissens unter »Laboratoriumsbedingungen«. Beobachtungen zu »Poetik und Hermeneutik« 1963–1966," *Internationales Archiv für Sozialgeschichte der deutschen Literatur (IASL)* 35, no. 1 (2010): 77–102; Petra Boden, "Arbeit an Begriffen. Zur Geschichte von Kontroversen in der Forschungsgruppe Poetik und Hermeneutik. Ein Forschungsprojekt," *Internationales Archiv für Sozialgeschichte der deutschen Literatur (IASL)* 35, no. 1 (2010): 103–121; Carlos Spoerhase, "Rezeption und Resonanz: Zur

the philosopher Hans Blumenberg had been dead for almost two years, but his reputation had only grown, not least by dint of his association with the concept of "contingency." That the publication of *Kontingenz* was dedicated to the memory of Blumenberg after his passing was almost a matter of course. But there was something especially poignant in the circumstance that the final meeting of a group Blumenberg had helped to establish three decades prior was dedicated to a concept he had almost singlehandedly reinvented and brought into common philosophical parlance.[3] Contingency, the apparently simple modal qualification that some given thing "could be otherwise," had, through Blumenberg's work, rapidly ramified into one of the most distinctive, loaded, and challenging philosophical tropes of the "old" Federal Republic. The atmospheric sense that things "could be otherwise" had, in all likelihood, only gained in relevance among those present in 1994, for whom the completely unexpected reality of a "new" Federal Republic had yet to fully sink in.

It was also fitting that it was the philosopher Odo Marquard (1928-2015), the most prominent among the organizers of the conference, who appended an *in memoriam* to Blumenberg as a preface to the 1998 volume.[4] In important respects a popularizer of several central themes of Blumenberg's work,[5] Marquard had spent much of his career writing exoteric philosophical essays on modern culture that drew on the more gnomic *Denkfiguren* of his late friend, while tempering them with the highly influential and relatively more accessible framework of the Münster School of his own dissertation advisor, Joachim Ritter.[6] Following Blumenberg's departure from *Poetik and Hermeneutik* he had also become one of the group's principle figures and organizers, and its major themes consistently reflected his own intellectual preoccupations.

One of Marquard's most influential arguments, scattered throughout the various essays from the early 1980's collected in *Farewell to Matters of Principle* and *In Defense of the Accidental*, concerned the concept of contingency. Marquard opposed two forms of contingency to one another: the utopian or absolutist contingency, for which the world's ability to be "otherwise" signified its fundamental openness to revision by human hands, and contingency as fate [*Schicksal*], which revealed itself in reality's "recalcitrance" [*Unverfügbarkeit*], its resistance to human mastery.[7] Marquard left no room for

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Faszinationsgeschichte der Forschungsgruppe »Poetik und Hermeneutik«," *Internationales Archiv für Sozialgeschichte der deutschen Literatur (IASL)* 35, no. 1 (2010): 122–142.

[3] Gerhard von Graevenitz, Odo Marquard, and Matthias Christen, eds., *Kontingenz*, vol. 17, Poetik und Hermeneutik (München: Fink, Wilhelm, 1998).

[4] Odo Marquard, "Entlastung vom Absoluten: In memoriam," in *Die Kunst des Überlebens: Nachdenken über Hans Blumenberg*, ed. Hermann Timm and Franz Josef Wetz, 3 edition (Frankfurt am Main: Suhrkamp Verlag, 1999).

[5] Jacob Taubes' student Richard Faber even called Marquard "Blumenberg's exoteric voice." See "Politische Theologie oder: Was heißt Theokratie?," in *Politische Religion – religiöse Politik*, ed. Richard Faber (Würzburg: Königshausen und Neumann, 1997), 37; cited from Joe Paul Kroll, "A Human End to History? Hans Blumenberg, Karl Löwith and Carl Schmitt on Secularization and Modernity" (Princeton University, 2010), 293.

[6] On the Ritter School see Jens Hacke, *Philosophie der Bürgerlichkeit: die liberalkonservative Begründung der Bundesrepublik* (Göttingen: Vandenhoeck & Ruprecht, 2006); For a critique of Hacke's somewhat hagiographic narrative, see A. Dirk Moses, "Forum: Intellectual History In And Of The Federal Republic Of Germany," *Modern Intellectual History* 9, no. 03 (November 2012): 636–37; and for an alternative but brief reading, see Dirk van Laak, "From the Conservative Revolution to Technocratic Conservatism," in *German Ideologies since 1945: Studies in the Political Thought and Culture of the Bonn Republic*, ed. Jan-Werner Müller (New York: Palgrave Macmillan, 2003).

[7] Odo Marquard, "The End of Fate? (Some Observations on the Inevitability of Things Over Which We Have No Power of Disposition)," in *Farewell to Matters of Principle: Philosophical Studies*, Odéon (New York: Oxford University Press, 1989); Odo Marquard, *In Defense of the Accidental*, trans. Robert M. Wallace (New York: Oxford University Press, 1991); Odo Marquard, "Unburdenings: Theodicy Motives in Modern Philosophy," in *In Defense of the Accidental*, trans. Robert M. Wallace (New York: Oxford University Press, 1991); A testament to the power of this trope of contingency as recalcitrance, it even played a central role in Jürgen Habermas's account of truth in *Truth And Justification* (MIT Press, 2005); For a contemporary history of the concept of Schicksal as Unverfügbarkeit, see Franziska Rehlinghaus, *Die Semantik des Schicksals: zur Relevanz des Unverfügbaren zwischen Aufklärung und Erstem Weltkrieg* (Vandenhoeck & Ruprecht, 2015).

doubt about his preference. Evoking a standard trope of the "liberal-conservative" discourse of the Ritter School in his verdict, Marquard declared utopian-Promethean contingency the culprit responsible for modernity's most disturbing catastrophes, because the excessive demands it made upon the fragile human being to remake the world had foundered on that world's recalcitrant contingency.[8]

This politicized image of reality also featured centrally in Marquard's eulogy for Blumenberg, "*Entlastung vom Absoluten: In memoriam*." Under the influence of Ritter and the conservative philosophical anthropologist and former Nazi party member Arnold Gehlen, the figure of "*Entlastung*" ["unburdening"] had rapidly emerged as one of the favored tropes of conservative philosophical thought in the first decades of the Federal Republic, eventually becoming—alongside the Ritter School's other juridical term of art, "compensation"[9]—one of Habermas's targets in his critiques of the "New Conservatism" of the late 1970's and early 1980's *Tendenzwende*.[10] Usually translated into English with attention to its metaphorical origins as "unburdening," but signifying equally the more overtly juridical concept of "exoneration," *Entlastung* provided conservatives with a convenient rhetorical alternative to the ideal of "emancipation" touted by the Frankfurt School. The utopian project of throwing off all fetters had, in the conservatives' eyes, proven itself to be as futile as it was dangerous. So they proposed instead a deflationary project of reconciliation with modernity that took stock of the impossible pressures to which human beings were daily exposed. Politics and culture could at most "unburden" the frail and fragile human being, "compensating" it for the all-too great demands made by an inscrutable reality,[11] including the technocratic fervor for "planning," manifested in the 1960's *Planungsoptimismus* and the Left's allegedly immodest demands for "emancipation" and "justification."[12] The recognition of the ineluctably fateful contingency of the world, by contrast, provided precisely such a means of dispelling the absolute demands made upon modernity by the Promethean myth of total mastery. Blumenberg's most lasting contribution to modern philosophy, for Marquard, had thus been to bring to light this role the consciousness of contingency could play in relieving humanity of the absolute burden of justification.

Marquard's argument was a red thread running through many of the talks collected in *Kontingenz*. But as Anselm Haverkamp has recently remarked, "the actual treatment of the topic" at the conference "could not have been more alienated from [Blumenberg's] intentions."[13] On the one hand, Haverkamp points to a disparity in methodological approach. Blumenberg had himself long since lost interest in the group, having stepped down as organizer after its second meeting and

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[8] Odo Marquard, "Indicted and Unburdened Man in Eighteenth-Century Philosophy," in *Farewell to Matters of Principle: Philosophical Studies*, Odéon (New York: Oxford University Press, 1989); Marquard, "Unburdenings: Theodicy Motives in Modern Philosophy."

[9] Odo Marquard, "Competence in Compensating for Incompetence? (On the Competence and Incompetence of Philosophy)," in *Farewell to Matters of Principle: Philosophical Studies*, Odéon (New York: Oxford University Press, 1989).

[10] See in particular Jürgen Habermas, "Neoconservative Cultural Criticism in the United States and West Germany," in *The New Conservatism: Cultural Criticism and the Historians' Debate*, trans. Shierry Weber Nicholsen (Cambridge, Mass: MIT Press, 1989); and "The New Obscurity: The Crisis of the Welfare State and the Exhaustion of Utopian Energies," in *The New Conservatism: Cultural Criticism and the Historians' Debate*, trans. Shierry Weber Nicholsen (Cambridge, Mass: MIT Press, 1989); Jerry Z. Muller, "German Neo-Conservatism, ca. 1968-1985: Hermann Lübbe and Others," in *German Ideologies since 1945: Studies in the Political Thought and Culture of the Bonn Republic*, ed. Jan-Werner Müller (New York: Palgrave Macmillan, 2003).

[11] Marquard, "Unburdenings: Theodicy Motives in Modern Philosophy"; Marquard, "Competence in Compensating for Incompetence? (On the Competence and Incompetence of Philosophy)."

[12] Gabriele Metzler, "The Integration of Social Science Expertise Into the Political Process: Did It Actually Happen?," in *Experts in Science and Society*, ed. Elke Kurz-Milcke and Gerd Gigerenzer (New York: Kluwer Academic/Plenum Publishers, 2004); Gabriele Metzler, *Konzeptionen politischen Handelns von Adenauer bis Brandt: politische Planung in der pluralistischen Gesellschaft* (Paderborn: Schöningh, 2005).

[13] Anselm Haverkamp, "The Scandal of Metaphorology," *Telos* 2012, no. 158 (March 20, 2012): fn 16 p 49.

having only participated once more thereafter, in 1968.[14] Most contributors to the 1994 conference strove to lend the term the lucid conceptual and historical contours of a traditional philosophical concept, tracing its various names and iterations across time and clearly demarcating its respective meanings in order to give it a firm, formal and coherent definition.[15] But none of them betrayed the slightest interest, however, in pursuing the reasons for the dramatic postwar revival of contingency. They took for granted their own fascination with its concept. And so they remained satisfied to hold that Blumenberg's achievement had been to clarify the world historical significance of the term and offer it as a panacea to modernity's ills.

In so doing, on the other hand, the conference participants also betrayed the signature pathos with which Blumenberg handled the concept of contingency. Contingency, for Blumenberg, was shot through with ambivalence.[16] Unlike Marquard's easy separation of two "forms" of contingency between which one might freely select, the characteristic paradoxes of contingency, the inseparability of its opposed moments, contributed decisively to the power it exercised in Blumenberg's works and its enhanced capacity for rhetorical variation in the wider public sphere.[17]

In light of the role played by ambivalence in the stations traveled by the concept of contingency in postwar West Germany, it is probably no accident that, among the generation of thinkers attracted to *Kontingenzsinn*, Blumenberg had been the only one to be persecuted by the Nazis, at least to some extent, on account of his Jewish heritage. Protected and employed at the height of Nazi deportations of German Jews in the 1940's by his future father-in-law, the businessman Heinrich Dräger, the "*Halbjude*" Blumenberg may have experienced the pangs of complicity and survivor guilt: the *Drägerwerk* where he was shielded from deportation until the final months of the war employed slave labor in its support of the Nazi war effort. Should we be surprised then that, although he never explicitly identified as Jewish, a litany of the psychological affects stereotypically attributed to Ashkenazi Jews—anxiety, guilt and ambivalence—populate his vast corpus, showing up as explicit topics, as well as consciously and unconsciously buried latencies.[18] And with the exception of Adorno, who was Blumenberg's senior by seventeen years, I do not think Haverkamp exaggerates when he suggests that "[i]n no philosophical career of the time can we find a comparably deep, thorough, philosophical response and form of working through."[19] I submit that the pathos of *Kontingenz*, which attracted so many thinkers of the generation after Blumenberg, had more than a little to do with the problem of "working through" the past of German modernity.[20]

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[14] Hans Blumenberg, "Wirklichkeitsbegriff und Wirkungspotential des Mythos," in *Terror und Spiel: Probleme der Mythenrezeption*, ed. Manfred Fuhrmann, vol. 4, Poetik und Hermeneutik (Paderborn: Wilhelm Fink, 1971).

[15] A project that has ultimately found full expression in a pair of recently published volumes. See Arnd Hoffmann, *Zufall und Kontingenz in der Geschichtstheorie: mit zwei Studien zu Theorie und Praxis der Sozialgeschichte* (Vittorio Klostermann, 2005); Peter Vogt, *Kontingenz und Zufall: Eine Ideen- und Begriffsgeschichte. Mit einem Vorwort von Hans Joas* (Walter de Gruyter, 2011). Vogt's work in particular assumes a notably "Marquardian" framework.

[16] Haverkamp, "The Scandal of Metaphorology," 49.

[17] For another account of Blumenberg's ambivalence, see Jeffrey Andrew Barash, "Myth in History, Philosophy of History as Myth: On the Ambivalence of Hans Blumenberg's Interpretation of Ernst Cassirer's Theory of Myth," *History and Theory* 50, no. 3 (October 1, 2011): 328–40.

[18] For Blumenberg's relationship to Freud, Arendt, and the Eichmann trial, see Hans Blumenberg, *Rigorism of Truth: "Moses the Egyptian" and Other Writings on Freud and Arendt*, ed. Ahlrich Meyer, trans. Joe Paul Kroll (Ithaca, NY: Cornell University Press, 2018); Martin Jay, "Against Rigor: Hans Blumenberg on Freud and Arendt," *New German Critique* 44, no. 3 (132) (November 1, 2017): 123–44.

[19] Haverkamp, "The Scandal of Metaphorology," 39.

[20] The tight linkage between modernity, ambivalence, and Jewish identity has long been noted by scholars since Freud. See in particular Zygmunt Bauman, *Modernity and Ambivalence* (Oxford: Polity, 1993); Martin Jay, "Liquidity Crisis: Zygmunt Bauman and the Incredible Lightness of Modernity," *Theory, Culture & Society* 27, no. 6 (November 1, 2010): 95–106.

For a philosopher like Blumenberg this meant working through the German philosophical tradition, including the very meaning of "tradition" as such with respect to contemporary thought. In some respects, Blumenberg's entire corpus represents an obsessive half-century-long reckoning with the classical European legacy. From Schleiermacher through Dilthey to Gadamer the hermeneutics of tradition had formed a venerable tradition of its own within German philosophy. And in certain respects Blumenberg's project can also appear as an attempt to create an alternative to Gadamer's emphasis on historical continuity in his promotion of the "fusion of horizons" between past and present. But Blumenberg's major concerns lay elsewhere. The contours of his ambivalence come into view with particular acuity in his difficult and elusive relationship to Gadamer's own teacher, Martin Heidegger,[21] the philosopher whose involvement in Nazism has ever since constituted one of the great scandals in the history of European philosophy.[22]

Instructive comparisons might be made with the postwar responses of several of Heidegger's famous Jewish students, who would also exercise considerable influence on Blumenberg, including Karl Löwith, Hannah Arendt, and especially his long-time friend Hans Jonas.[23] But in terms of generational experience, Blumenberg, born in 1920, occupied a trough between "Heidegger's Children,"[24] who were born just after the turn of the century, and the "skeptical" *Flakhelfer* generation, or "45ers," born in the late 1920's and early 1930's, who would come to embrace *Kontingenzsinn*.[25] While still in thrall to the early project of the tarnished philosopher, Blumenberg's 1947 dissertation grappled with Heidegger in part by questioning and revising his account of the relationship of philosophical thought to tradition in *Being and Time*,

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21 For Blumenberg's relationship to Heidegger, see Hans Blumenberg, "Die ontologische Distanz: Eine Untersuchung über die Krisis der Phänomenologie Husserls" (Habilitationsschrift, Christian Albrechts Universität zu Kiel, 1950); Hans Blumenberg, *Die Verführbarkeit des Philosophen* (Suhrkamp, 2000) In particular, "Parteibeitrag," pp. 75-79; Hans Blumenberg, *Präfiguration Arbeit am politischen Mythos*, ed. Angus Nicholls and Felix Heidenreich (Berlin: Suhrkamp, 2014); One of the best discussions of Blumenberg's break with Heidegger, relying on private correspondence from the Nachlass can be found in Kroll, "A Human End to History? Hans Blumenberg, Karl Löwith and Carl Schmitt on Secularization and Modernity," 36–43; Angus Nicholls, *Myth and the Human Sciences: Hans Blumenberg's Theory of Myth: Hans Blumenberg's Theory of Myth* (Routledge, 2014), 93–103; Kurt Flasch, *Hans Blumenberg: Philosoph in Deutschland: Die Jahre 1945 bis 1966*, 2017 edition (Frankfurt am Main: Klostermann, Vittorio, 2017); Vida Pavesich, "Hans Blumenberg's Philosophical Anthropology: After Heidegger and Cassirer," *Journal of the History of Philosophy* 46, no. 3 (July 18, 2008): 421–48.

22 A controversy that has been raging since the 1930's was reopened again by the discovery of Heidegger's so-called "black notebooks," which provided irrefutable evidence of Heidegger's anti-semitism. Martin Heidegger, *Ponderings II–VI: Black Notebooks 1931–1938* (Indiana University Press, 2016); *Ponderings VII–XI: Black Notebooks 1938–1939* (Indiana University Press, 2017); *Ponderings XII–XV: Black Notebooks 1939–1941* (Indiana University Press, 2017); Ingo Farin and Jeff Malpas, *Reading Heidegger's Black Notebooks 1931–1941* (MIT Press, 2016); Andrew J. Mitchell and Peter Trawny, *Heidegger's Black Notebooks: Responses to Anti-Semitism* (Columbia University Press, 2017); Jean-Luc Nancy, *The Banality of Heidegger* (Oxford University Press, 2017); The now classic discussions of Heidegger's Nazism include Victor Farias, *Heidegger and Nazism*, ed. Joseph Margolis and Tom Rockmore (Philadelphia: Temple Univ Pr, 1989); Hans Sluga, *Heidegger's Crisis: Philosophy and Politics in Nazi Germany* (Cambridge, Mass: Harvard University Press, 1993); Hugo Ott, *Martin Heidegger: A Political Life* (Fontana Press, 1994); Julian Young, *Heidegger, Philosophy, Nazism* (Cambridge University Press, 1998); Emmanuel Faye, *Heidegger, the Introduction of Nazism Into Philosophy in Light of the Unpublished Seminars of 1933-1935*, ed. Tom Rockmore, trans. Michael B. Smith (Yale University Press, 2009).

23 Yotam Hotam, "Overcoming the Mentor: Heidegger's Present and the Presence of Heidegger in Karl Löwith's and Hans Jonas' Postwar Thought," *History of European Ideas* 35, no. 2 (June 1, 2009): 253–64; Richard Wolin, *Heidegger's Children: Hannah Arendt, Karl Löwith, Hans Jonas, and Herbert Marcuse* (Princeton: Princeton University Press, 2001).

24 Wolin, *Heidegger's Children*.

25 Helmut Schelsky, *Die skeptische generation: eine Soziologie der deutschen Jugend.* (Dusseldorf: E. Diederich, 1957); A. Dirk Moses, *German Intellectuals and the Nazi Past* (Cambridge: Cambridge University Press, 2009); Matthew Specter has also suggested referring to this generation as the "58ers" rather than "45ers" because of the importance of political events taking place once they had already come of age. *Habermas: An Intellectual Biography* (Cambridge University Press, 2010).

particularly in his suspicion of any attempt to recover absolute origins.[26] His youthful fascination with Kafka, to which several essays from the early 1950's testify, also broaches this issue of ambivalence towards tradition. In the 1953 essay on Kafka "The Absolute Father" in particular, Blumenberg evinced an unmistakable ambivalence—attraction, fascination, and terror—towards the idea of the absolute, patriarchal authority, religion in general, and Judaism in particular.[27] A notoriously reclusive and private figure, of whom only a couple photographs exist in public, one can only speculate as to the meaning of such repeated reflections on guilt with respect to the contemporary world, using hints and allusions dropped in texts to reconstruct a subterranean intellectual biography. Such a task would exceed the scope of this chapter.

Without denying the conservative political resonances of Blumenberg's work, it is safe to say that he was not an explicitly political thinker.[28] Although intellectual histories of the problem of German guilt have of late focused on political thought,[29] it had been, after all, an existentialist philosopher for whom political questions were not of the first rank who had set the terms of the postwar debate. The fourfold typology of guilt—criminal, political, moral, and metaphysical—of Karl Jasper's 1946 *The Question of German Guilt* has become for many the point of departure for conversations on the nature of German guilt for the Holocaust and World War Two.[30] Cryptic statements like the epigraph to this chapter notwithstanding, Blumenberg never publically confronted the problem of German guilt head-on. Yet the centrality of "metaphysical" guilt to his reflections on contingency in intellectual history undoubtedly suggests a latent preoccupation.

But what, then, did Blumenberg mean by contingency? How did he understand and present the crucial elements of *Kontingenzsinn* in his written work? The following ten sections aim to sketch the complex constellation of ideas, emotions and intellectual projects that brought life to this otherwise dry concept of modal logic as it developed within Blumenberg's works from the late 1940's through *Legitimacy of the Modern Age*, first published in 1966 and substantially revised for republication in 1974. The chapter highlights the role of the categories of guilt and theodicy as "existential" concepts that animated Blumenberg's development of *Kontingenzsinn* as a means of reckoning with the legacy of the modern German intellectual tradition. The significance of theodicy and guilt appeared not only in Blumenberg's historical reconstruction of the role of contingency in the genesis of modernity, but also became palpable in his emphasis on the juridical elements of the contingency concept. The pathos of this usage, even more, conditioned contingency's reception in a new West Germany struggling to stake out and come to terms with its histories and their implications for its postwar modernity. Finally, I will also draw attention throughout to the elements

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[26] Hans Blumenberg, "Beiträge zum Problem der Ursprünglichkeit der Mittelalterlichscholastischen Ontologie" (Dissertation, Christian Albrechts Universität zu Kiel, 1947) This work is discussed in section four of this chapter. For an account stressing Blumenberg's interest in pursuing origins, see Samuel Moyn, "Metaphorically Speaking: Hans Blumenberg, Giambattista Vico, and the Problem of Origins," *Qui Parle* 12, no. 1 (2000): 55–76.

[27] Hans Blumenberg, "Der absolute Vater [Zeitungsartikel]," in *Schriften zur Literatur 1945-1958*, ed. Alexander Schmitz and Bernd Stiegler (Berlin: Suhrkamp Verlag, 2017); Kroll also includes in his dissertation a brief but solid discussion of Blumenberg's reflections on Kafka "A Human End to History? Hans Blumenberg, Karl Löwith and Carl Schmitt on Secularization and Modernity," 43–52.

[28] One of the only texts to explicitly discuss National Socialism in anything more than allusions or the occasional passing references was published only posthumously: Blumenberg, *Präfiguration Arbeit am politischen Mythos*; For recent takes on Blumenberg's politics, see Brad Tabas, "Blumenberg, Politics, Anthropology," *Telos* 2012, no. 158 (March 20, 2012): 135–53; Felix Heidenreich, "Political aspects in Hans Blumenberg's philosophy," *Revista de Filosofia Aurora* 27, no. 41 (April 26, 2015): 523–39; Xander Kirke, *Hans Blumenberg: Myth and Significance in Modern Politics* (New York, NY: Palgrave Pivot, 2019).

[29] Moses, *German Intellectuals and the Nazi Past*.

[30] Karl Jaspers, *The Question of German Guilt*, Perspectives in Continental Philosophy, no. 16 (New York: Fordham University Press, 2000); Barbara Wolbring, "Nationales Stigma und persönliche Schuld: Die Debatte über Kollektivschuld in der Nachkriegszeit," *Historische Zeitschrift* 289, no. 2 (January 2009).

of Blumenberg's interpretation that will become directly relevant to Luhmann's idiosyncratic appropriation of *Kontingenzsinn* in the 1960's.

» 1 «
The Cosmos and Theological Voluntarism

Accounts of Blumenberg's interpretation of contingency tend to refer to a brief entry he penned for a religious encyclopedia in 1959, round about the same moment he appears to have fully grasped the epochal import of the concept. In what amounted to no more than a long paragraph, the entry encapsulated in condensed form the most essential philosophical and historical elements of Blumenberg's reading. The opening line has garnered particular attention: "Contingency," Blumenberg proclaimed, rated among "the few concepts of specifically Christian provenance in the history of metaphysics."[31] Most of the familiar and venerable metaphysical concepts of the European tradition, by contrast, had originated in the ancient world, even if they received new meanings and configurations through their syncretization with Christian theology. Contingency was distinctive not only because of its unique historical origin, but also because it was constituted precisely as the negation of what Blumenberg had long taken to be the fundamental principle of ancient metaphysics: the "cosmos" ideal. The breakthrough of contingency in the late Middle Ages signified, as early as his 1947 dissertation, the "breaking apart" of the Greek philosophical idea of the cosmos, a world which, while eternal, could only contain a finite number of forms; one whose lawfulness and reliability also signified its closure and fixity, its lack of room for free play and creativity, the "the complete exhaustion of eidetic possibility of Being." The contingent world of the modern age, by contrast, is infinite. It contains no internal a priori limit on the possibilities that might still be brought into existence.[32] In thus undermining the reliability of the cosmos, contingency gave rise to both the emancipatory ideal of radical human freedom as well as the vertiginous anxieties provoked by the loss of a stable ground, one of the roots of its signature ambiguity. Heidegger's philosophy, Blumenberg implied with reference to two key categories of *Being and Time*, amounted to an expression of this experience: "The same cosmic infinity, which sublated the contingency of nature in the effect of Copernicus's reform, increased the contingency of human self-experience, culminating in pure facticity and 'thrownness' [*Faktizität und 'Geworfenheit'*]."[33]

But if contingency played such an outsized role in 'undoing the cosmos,' it was not because European consciousness had suddenly awoken to the truth and reality of contingency at an arbitrary moment in its history. A "motive" and a "provocation" had to be uncovered that could account for the complex process by which contingency came to play its epochal role. Although his exact position on this story shifted between the dissertation and *Legitimacy*, Blumenberg remained consistent in attributing the breakthrough of the consciousness of contingency to the immanent development of the Christian theology of God's absolute voluntarism.

Like any German philosopher worthy of the name, Blumenberg was burdened with an outsized preoccupation with the will. Whether or not one holds Luther responsible, for so much of the modern German tradition the will served as both terminus ad quem and terminus a quo of

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[31] Hans Blumenberg, "Kontingenz," in *Die Religion in Geschichte und Gegenwart. Handwörterbuch für Theologie und Religionswissenschaft.*, ed. Kurt Galling and Hans Freiherr von Campenhausen, vol. 3 (Tübingen: Mohr, 1959), 1794.
[32] A theme famously emphasized by Alexandre Koyré in *From the Closed World to the Infinite Universe* (Johns Hopkins University Press, 1957).
[33] Blumenberg, "Kontingenz," 1794.

philosophical inquiry: that from which, by which and towards which speculative thought unfolded.[34] The will has long appeared as the elusive point of convergence of classical German philosophy's preeminent concerns, the empty position where the dialectics of theory and praxis, reason and decision, freedom and necessity, activity and passivity, power and knowledge, creativity and destruction, either originated or resolved into a higher unity. In so many respects, postwar *Kontingenzsinn* developed as, if not an alternative to, then a "sublation" of German philosophy's longstanding preoccupation with the metaphysics of the will.

Within Blumenberg's narrative, as it developed in the decade roughly between 1957 and *Legitimacy of the Modern Age* (1966), the idea of the "contingency of the world" formed the necessary correlate of the omnipotent will of this transcendent creator God, activating these traditional philosophical concerns along with it. Contingency characterized a world that could no longer justify its own existence, and therefore could no longer guarantee the reliability of its order.[35] Although the Augustinian doctrine of *creatio ex nihilo* made this idea of contingency possible by making the world depend on God's free decision in its form and its very existence, the identity of Christian Middle Ages derived from its struggle to reconcile its voluntarism with the cosmic metaphysics of antiquity. Adopting the stoic doctrine of providence enabled it to preserve this order only in the face of considerable logical difficulties. It would take the nominalists' unconditional emphasis on the *infinite* power of God's will to intensify the world's contingency to the degree that it could finally overwhelm this cosmic-providential residue. In affirming the infinite reach of God's power against any constraint other than the principle of logical non-contradiction, the existence of the world and any appearance of order within it appeared only as the inscrutable result of a willed decision, which could be revoked at any moment, and thus did not have to respect the laws of nature, however necessary they might appear to finite human reason. This world, the totality of what exists, thus appeared as only a contingent "selection" of one out of an infinite number of possible worlds God could have created instead. The modern age, embodied in its validation of theoretical curiosity and its technological orientation to the world followed, accordingly, as a "response" to the provocation of the consciousness of the groundlessness of the world intensified under the auspices of late medieval nominalism.

Moderns would come to call this experience of groundlessness *nihilism*.

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» 2 «
Creatio ex Nihilismo
Negotiating Catholic Personalism and Existential Ontology

There is a profound irony in the fact that the origins of Blumenberg's mature reflections on contingency had been borne of a debate whose aspirations to world-historical profundity were matched only by the crassness of its ethical evasions. In years following the end of the Second World War virtually every major German philosopher hastened to get in line to proclaim the most pressing question of the day to be that of "European nihilism."[36] Not only had both of

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[34] Interestingly, Blumenberg rarely wrote about Luther, though he makes an important appearance alongside Descartes as opening the way to modernity in his second dissertation. "Die ontologische Distanz."

[35] "The world is contingent as a reality, which, because it is indifferent to its existence, cannot bear within itself the right to be." Blumenberg, "Kontingenz," 1794.

[36] Dieter Arendt, ed., *Der Nihilismus als Phänomen der Geistesgeschichte in der wissenschaftlichen Diskussion unseres Jahrhunderts* (Darmstadt: Wissenschaftliche Buchgesellschaft [Abt. Verl.], 1974); Ernst Benz, *Westlicher und östlicher Nihilismus in christlicher Sicht* (Evangelisches Verlagswerk, 1948); Walter Bröcker, "Nietzsche und der europäische Nihilismus," *Zeitschrift für philosophische Forschung* 3, no. 2 (January 1, 1949): 161–77; Stanley Corngold, "Nietzsche: Nihilism and Neo-

Blumenberg's doctoral advisors, Ludwig Landgrebe and Walter Bröcker numbered among them, but Blumenberg too joined the fray in 1950 with a lecture on "The Problem of Nihilism in German Literature of the Present," and his 1951 Habilitationsschrift on Husserl and Heidegger took the contemporary cultural "crisis" of nihilism as its point of departure.[37] An anchor of consensus for philosophers hailing from otherwise opposing perspectives, nihilism offered a convenient and abstract substitute, a scapegoat with which to expiate the collective stigma of German crimes. Catholics and Protestants, phenomenologists, existentialists, and philosophical anthropologists, former Nazis and even some of their victims, concurred that the demonic spirit of nihilism had possessed Old Europe. The disappointment of the promise of a New Europe had revealed modernity as a failed Faustian bargain. One after another, reason, the will to power, Enlightenment, secularization, capitalism, science, technology, and the disenchantment of, alienation from and domination of nature—in short, modernity—were exposed as the veritable culprits of the twentieth century's catastrophes. Modernity, in its endless quest to create by recreating itself anew, in its empty, formal "will to will" was nothing but an engine of destruction: nihilism was but the name of modernity's cultivation of this will to power. Represented as such a mythical hybrid of human-machine hubris, nihilism disburdened those specifically responsible by making a generic notion of modernity's Promethean aspiration responsible for the disasters of the twentieth century.

Not for nothing had the term been swiftly and irrevocably affixed to Nietzsche's notorious proclamation of the death of God. Although the twentieth-century German Catholic reception of Nietzsche may have emphasized secularization as the cause of modern groundlessness and nihilism, for Blumenberg it was rather the Christian idea of divine omnipotence that had originally made possible both the general experience of nihilism and the more specific idea of nothingness. But this did not mean that Blumenberg was from the beginning the avowed modernist for which he became renowned. Quite the contrary, Blumenberg's works from the 1947 dissertation through 1950-1 belonged squarely within the anti-modernist mainstream of the nihilism discourse running rampant through West German philosophy in the immediate postwar decade. The well-documented reception of Nietzsche in twentieth century Germany[38] extended even as far as its Catholic milieu, which adopted his critique of European nihilism for its own anti-modernist and later Cold War polemics.[39] Blumenberg belonged, albeit somewhat uncomfortably, to this milieu in the late 1940's

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Gnosticism," in *Nietzsche, Nihilism and the Philosophy of the Future*, ed. Jeffrey Metzger (A&C Black, 2009); Karl Löwith, *Martin Heidegger and European Nihilism*, ed. Richard Wolin (New York: Columbia University Press, 1995); Roberto Franzini Tibaldeo, "Hans Jonas' 'Gnosticism and Modern Nihilism', and Ludwig von Bertalanffy," *Philosophy & Social Criticism* 38, no. 3 (March 1, 2012): 289–311; Werner Stegmaier, *Orientierung Im Nihilismus - Luhmann Meets Nietzsche* (Boston: De Gruyter, 2016); Conor Cunningham, *Genealogy of Nihilism Philosophies of Nothing and the Difference of Theology* (London; New York: Routledge, 2002); David Biale, "Gershom Scholem on Nihilism and Anarchism," *Rethinking History* 19, no. 1 (January 2, 2015): 61–71; Hans-Jürgen Gawoll, *Nihilismus Und Metaphysik: Entwicklungsgeschichtliche Untersuchung Vom Deutschen Idealismus Bis Zu Heidegger*, Spekulation Und Erfahrung. Abteilung II, Untersuchungen, Bd. 9 (Stuttgart-Bad Cannstatt: Frommann-Holzboog, 1989); Michael Allen Gillespie, *Nihilism Before Nietzsche* (University of Chicago Press, 1996); Leo Strauss, "German Nihilism," ed. David Janssens and Daniel Tanguay, *Interpretation* 26, no. 3 (1999); Laurence Paul Hemming, Kostas Amiridis, and Bogdan Costea, eds., *The Movement of Nihilism: Heidegger's Thinking after Nietzsche* (London ; New York: Continuum, 2011); James Chappel, "Nihilism and the Cold War: The Catholic Reception of Nihilism between Nietzsche and Adenauer," *Rethinking History* 19, no. 1 (January 2, 2015): 95–110.

[37] Ludwig Landgrebe, "Zur Überwindung des europäischen Nihilismus," in *Der Nihilismus als Phänomen der Geistesgeschichte in der wissenschaftlichen Diskussion unseres Jahrhunderts*, ed. Dieter Arendt (Darmstadt: Wissenschaftliche Buchgesellschaft [Abt. Verl.], 1974); Bröcker, "Nietzsche und der europäische Nihilismus"; Hans Blumenberg, "Das Problem des Nihilismus in der deutschen Literatur der Gegenwart [Vortrag]," in *Schriften zur Literatur 1945-1958*, ed. Alexander Schmitz and Bernd Stiegler (Berlin: Suhrkamp Verlag, 2017); Blumenberg, "Die ontologische Distanz," 5.

[38] Steven E. Aschheim, *The Nietzsche Legacy in Germany: 1890 - 1990* (Berkeley; London: University of California Press, 1994).

[39] Chappel, "Nihilism and the Cold War."

and early 1950's. One of its major figures, theologian Romano Guardini, had written the wildly popular 1950 anti-modern screed, *Das Ende der Neuzeit*.[40] Although much of Blumenberg's work clearly bears the marks of this milieu's influence, even at his most Catholic and anti-modernist, his thought never fit seamlessly into its broader tendencies. And despite being in thrall to so much of Heidegger's early philosophy at the same time, neither did he blindly follow its directives. In oscillating between these two poles—Heidegger and Catholicism—Blumenberg's struggled to develop a unique philosophical perspective.

His earliest works, from the 1947 dissertation until "Imitation of Nature," had emphasized the concept of "nothingness" in the Christian doctrine of *creatio ex nihilo* as a distinct achievement of creationist metaphysics with respect to the ancient cosmos ideal, which could not tolerate the idea of absolute nothingness. Although partially reflecting his training in Catholic theology, Blumenberg derived important aspects of this argument from his *Auseinandersetzung* with the early Heidegger of *Being and Time*. In that text, Heidegger had criticized all of European metaphysics since Plato as "productionist" because it understood the ground of beings as rooted not in the groundlessness of Being, but as having been produced by other 'beings'—either by prime matter or in the unmoved mover of Aristotelian cosmology.[41] All grounds appeared as "causes," which threatened to flee into an infinite regress without other metaphysical provisos to act as a stopgap (such as the eternal self-sufficiency of the unmoved mover). Hence the tradition of ontological metaphysics had been unable to ask what Heidegger called the *Seinsgrundfrage*, the "fundamental question of being," which Leibniz had finally broached in the question underpinning his theodicy: why is there something rather than nothing?[42] For Heidegger, tradition's resistance to inquiring into the "nothing" testified to its inability to think "being" in an "originary manner," that is, without interpreting it in terms of other actual or "present-at-hand" beings.[43] In Heidegger's terms, Western metaphysic had long been unable to grasp the "ontological difference." As a consequence of this Platonic "forgetting" of the question of being, European metaphysics had been caught in a grand historical fate, a continuous historical decline that had reached its critical nadir in the modern metaphysics of technology and nihilism. Both were expressions of the apotheosis of the voluntarist and subjectivist metaphysics of the will to power. Medieval and modern voluntarism, for Heidegger, represented simply the consequences, unfolded across two and a half millennia, of the original sin of Greek metaphysics.

Already in his dissertation, an otherwise deeply Heideggerian work, Blumenberg rejected Heidegger's reading of medieval theology as merely another stage in the world-historical decline of the understanding of being. Instead, he saw in the Judeo-Christian doctrine of a personal God whose will creates the world *ex nihilo* an authentic and "originary" [*ursprünglich*] ontological experience that broke decisively with Greek cosmological metaphysics. But neither did he blindly follow the dominant Catholic personalist or neo-Thomist arguments.[44] Although Blumenberg

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[40] Romano Guardini, *Das Ende der Neuzeit. Ein Versuch zur Orientierung* (Würzburg: Werkbund-Verlag, 1950); Romano Guardini, *The End of the Modern World* (ISI Books, 1998).

[41] Michael E. Zimmerman, *Heidegger's Confrontation with Modernity: Technology, Politics, and Art* (Bloomington: Indiana University Press, 1990).

[42] Martin Heidegger, *The Metaphysical Foundations of Logic*, trans. Michael Henry Heim (Bloomington: Indiana University Press, 1984); Martin Heidegger, "What Is Metaphysics?," in *Pathmarks*, ed. William McNeill, trans. David Farrell Krell (Cambridge ; New York: Cambridge University Press, 1998).

[43] Martin Heidegger, *Being and Time*, Reprint edition (New York: Harper Perennial Modern Classics, 2008); Martin Heidegger, "On the Essence of Ground," in *Pathmarks*, ed. William McNeill, trans. David Farrell Krell (Cambridge ; New York: Cambridge University Press, 1998).

[44] For more on Christian personalism in the 20th century, see Bernard A. Gendreau, "The Role of Jacques Maritain and Emmanuel Mounier in the Creation of French Personalism," *The Personalist Forum* 8, no. 1 (1992): 97–108; Joseph Amato, *Mounier and Maritain: A French Catholic Understanding of the Modern World* (Ypsilanti, MI: Sapientia Press Ave Maria Univ, 2010); Samuel Moyn, "Personalism, Community, and the Origins of Human Rights," in *Human Rights in the*

derived from this tradition, particularly from theologians Etienne Gilson and Gerhard Krüger, his emphasis on the personal character of the Christian God and the idea that nominalism had been responsible for nihilism, nominalism simply did not play a major role in the dissertation. AlthoughOckham does not even make an appearance, the proto-nominalist Duns Scotus, still a realist in most respects, made a crucial appearance, is considered the end point of medieval ontology.[45]

Even more, according to the young Blumenberg, Scotus's voluntarism actually recaptured aspects of the originary ontological experience of the Middle Ages that had slowly eroded over the preceding centuries. In this, Blumenberg broke sharply with midcentury Catholicism's assumption that Thomas Aquinas represented the high point of scholastic theology. For Blumenberg, on the contrary, Thomas represented the betrayal of the originary ontological experience of the Middle Ages, which had been first captured by Augustine. Thomas's reception of Aristotle, specifically his doctrines of prime matter and the unmoved mover, had reintroduced to Christian theology the cosmological and causal metaphysics which Augustine's doctrine of the *ex nihilo* had substantively overcome. Anticipating crucial aspects of his later argument in *Legitimacy*, Blumenberg claimed that the Middle Ages had been beset by an unsolvable ambivalence between cosmological and voluntaristic metaphysics. Although the concept of contingency did not yet appear as an important concept in the dissertation, it derived from precisely this undecidable situation.

Modern nihilism thus bore a complex relationship to Christianity in Blumenberg's earliest works. Although in the early 1950's Blumenberg rejected technology as an expression of modern nihilism, he did not regard the latter as a purely negative experience, but rather as evidence of an authentic philosophical experience of groundlessness. That is, although he did not hold Christianity responsible for nihilism, it had first made it possible to engage the question of being because it had made it possible to think the nothing. And so, unlike neo-Thomists and more like Heidegger and Sartre, Blumenberg positively embraced the experience of groundlessness that modern technology revealed, even while he continued to criticize modernity for the belief that its science and technology could master fate and produce a new, reliable cosmos, a "second nature." Hewing to the standard language of nihilism discourse, but bucking its typical appraisal as a purely negative phenomenon, Blumenberg came to view nihilism less as the cause of the twentieth century's catastrophes so much as the only valid philosophical attitude remaining in their wake. Nihilism, he concluded, simply belonged to the authentic heritage of philosophical inquiry, and even more, perhaps, to the wellspring of the aesthetic relationship to reality.[46]

For the young Blumenberg around 1950, no one better captured this complex experience of nihilism better than Franz Kafka. Blumenberg argued that Kafka had brought attention to "the *inescapable urgency* of a call of an unexaminable origin and of crushing *resistance* to the human will," emphasizing the "futility of human life" when measured against the objective standards of modern science.[47] Unlike Heidegger, Kafka did not see technological rationality as the *source* of nihilism. On

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Twentieth Century, ed. Stefan-Ludwig Hoffmann (Cambridge University Press, 2010); Samuel Moyn, *Christian Human Rights* (Philadelphia, Pennsylvania: University of Pennsylvania Press, 2015).

[45] Although I disagree with her argument that Blumenberg's dissertation is therefore neo-Thomist in general orientation, for more on the role of Krüger in particular, see Anna Wertz, "The Genesis of Hans Blumenberg's Legitimacy of the Modern Age" (University of California, Berkeley, 2003), 24.

[46] "The *positivie Auseinandersetzung with nihilism* cannot consist in denying or ignoring its power and penetration of our present world, but rather in preparing an understanding of reality which *absorbs* the ruinous [*ruinanten*] *experiences* of the last half century and enable it to be grasped in the horizon of *one* world. For this task *art and poetry* offer the most adequate approaches…"Blumenberg, "Das Problem des Nihilismus in der deutschen Literatur der Gegenwart [Vortrag]," 45.

[47] Blumenberg, 48.

the contrary, nihilism represented, at this stage, the philosophical overcoming of the world of modern technology: "The nihilistic turn, as it is characterized by Kafka, is a *turn against Faust*," Blumenberg held.[48] The writer saw in the everyday familiarity of the modern world no more than a technologically reconstructed illusion, whose failure to repress the absolute resulted in its paradoxical unraveling. Kafka revealed for Blumenberg that the absolute was no longer to be sought in transcendence, but rather appeared in those places where the most familiar reality revealed itself to be unfathomable, absurd, alien, and resistant to the human will.[49] Contemporary nihilism therefore represented the "event of a self-announcing *Absolute*, of an unconditioned experience, which shatters the *familiar world* as a *paradox*. This paradox, as the hallmark of the absolute, is the fundamental experience of the Kafkaesque."[50]

The "absolute father" embodied precisely this paradoxical figure of the absolute ground as absolute groundlessness. In a 1953 text by that name, Blumenberg rejected the then-popular Freudian interpretation of the quasi-theological motif of the powerful patriarch in Kafka's work as an expression of an original Oedipal drama.[51] For Blumenberg it had been the inverse: the absoluteness of the father figure in psychoanalysis was rather a late-stage precipitate of the loss of God, a condensation of the dependency and terror but also the nostalgia for the personal-cosmic trust whose loss had announced itself as nihilism. The figure of the absolute father therefore represented a complex "placeholder" for a disappeared theological transcendence: it not only read the death of God as a painful loss, but also pointed to the origins of nihilism in the "groundlessness" of the original absolute power assigned to God. Kafka's writing—as well as his failed attempts at marriage—thus appeared to Blumenberg as a struggle to keep this immanent image of absolute power at bay, an attempt at "self-assertion" that aimed to divide the absolute groundlessness of transcendence against itself.[52]

» 3 «
Worldhood and World-Alienation
Phenomenological and Anthropological Perspectives

Blumenberg's reading of Kafka's nihilism also corresponded closely to the work of another figure characterized by religious ambivalence, the lapsed Catholic philosopher of Jewish parentage, Max Scheler. Before his turn away from Catholicism in the early 1920's, Scheler, a major conduit for the Catholic reception of Nietzsche,[53] had been the primary German figurehead of the interwar tradition

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[48] Blumenberg, 48–49; Blumenberg explored this motif further in "Die Krise des Faustischen im Werk Franz Kafkas," in *Schriften zur Literatur 1945-1958*, ed. Alexander Schmitz and Bernd Stiegler (Berlin: Suhrkamp Verlag, 2017).

[49] "*The most real*, namely that which most deeply determines our fate, is at the same time *the least objectifiable*. Being is torn from abysses of transcendence, not only in the most distant metaphysical realms, but rather in the nearest and most everyday, in the truncating of mutual understanding between humans… What at first appeared as a suspicious *Hinterwelt*, the dusky unreality of the court in the 'Trial', proves itself more and more as the *Übermacht* of a *transcendence* that devours and annihilates everything else, and before which 'our' world sinks into *nothingness*." Blumenberg, "Das Problem des Nihilismus in der deutschen Literatur der Gegenwart [Vortrag]," 47.

[50] Blumenberg, 49.

[51] Hans Blumenberg, "Der absolute Vater [Aufsatz]," in *Schriften zur Literatur 1945-1958*, ed. Alexander Schmitz and Bernd Stiegler (Berlin: Suhrkamp Verlag, 2017).

[52] This prefigured Blumenberg's discussion of Goethe's "extraordinary saying" in *Work on Myth*, which I will treat briefly in the Prelude to Part III. Hans Blumenberg, *Work on Myth*, trans. Robert M. Wallace (Cambridge, Mass.: The MIT Press, 1988); Kroll also draws a similar connection between the two discussions of the absolute, separated by nearly thirty years: "A Human End to History? Hans Blumenberg, Karl Löwith and Carl Schmitt on Secularization and Modernity," 48.

[53] Chappel, "Nihilism and the Cold War."

James Chappel has called Catholic "ultramodernism." Unlike the reactionary medievalist orientation of many neo-Thomists, the ultramodernists looked to the future rather than the past for guidance in matters of spiritual renewal. Only a new kind of Catholicism, these thinkers submitted, could rescue the modern world from its malaise, not by turning back the clock, but transcending modernity in a progressive direction.[54] Although Catholic intellectuals finally began to embrace the political aspects of liberal modernity after World War Two, the ultramodernist philosophical interpretation of the contemporary world remained relatively intact, as witnessed by the postwar revival of the ultramodernists' flagship journal in West Germany, *Hochland*, to which Blumenberg was a frequent contributor in the early 1950's.

In fact, Scheler may have been the first to use the expression "the contingency of the world" to designate the experience of nihilism as a form of existential groundlessness. Beginning his career as a phenomenologist looking to extend Husserl's project in new directions, before becoming one of the first of the Weimar era "philosophical anthropologists" alongside Helmuth Plessner and Arnold Gehlen, Scheler fused the two traditions in his final work before his untimely death, *The Human Place in the Cosmos*. In that work, Scheler described the origins of religion as an anthropologically deep-rooted response to the exposure to the world's contingency—that is, to the experience of nihilism *avant la lettre*.[55] Such an experience was rooted in the human being's biological deficiency, its instinctual inadequacy with respect to the conditions of its own survival, an idea to which Gehlen would later confer the memorable title of *Mängelwesen*, a "creature of lack." These woeful inadequacies, however, came with extraordinary benefits. Lacking the instinctual outfitting of other animals, the human being was characterized, in Plessner's influential phrase, by an unprecedented "world openness" [*Weltöffenheit*]. This characteristic underwrote the human being's remarkable plasticity and variability, its ability to be always more than its biological endowments. In short, world openness became a prerequisite of culture.

These Weimar philosophical anthropologists, especially Scheler and Plessner, developed the idea of world openness in part out of their encounter with the recent revival of the concept of the world in Husserl's phenomenology. A concept that had been a precarious cornerstone of the architecture of classical German idealism, the "world" concept articulated reality in the form of an absolute totality: "everything that exists" as it could appear to transcendental subjectivity. While the idea of the "world" in traditional cosmology simply designated the exhaustive and objective totality of all that exists in itself, for Kant the world corresponded to both the totality of possible experience in space and time as forms of intuition, and the regulative ideal of the world's objective unity as projected by the transcendental subject. In Fichte's radicalized absolute idealism, or at least simplified yet influential versions of it, the transcendental ego was directly responsible for "constituting" the world, the "I" positing the "not-I" as a moment of its coming to self-recognition and consciousness—an idea that has frequently drawn comparisons to divine creation.

Husserl's phenomenological rendition, by contrast, described the world as an "open" totality, given expression by the metaphor of ever-receding "horizons." The world, in this sense, is never "complete," but appears in the form of an infinite "and so forth…" The world designated that with which every consciousness is always already familiar, the background always "appresented" (that is, dimly indicated but not made thematic) along with each "intentional act" of consciousness, Husserl's expression for perception. Only against such a taken-for-granted background totality could

[54] James Chappel, *Catholic Modern: The Challenge of Totalitarianism and the Remaking of the Church* (Cambridge, Massachusetts: Harvard University Press, 2018).

[55] Max Scheler, *The Human Place in the Cosmos*, ed. Eugene Kelly, trans. Karin S. Frings (Evanston, Ill: Northwestern University Press, 2008).

individual objects first stand out to consciousness.[56] The world is not generally experienced "as such" but only presupposed as the ever present background "horizon" within which actual objects are constituted by transcendental subjectivity—an idea which would later, under different historical conditions, evolve into the influential concept of the "lifeworld."

Owing to his abstract and logical emphasis on the transcendental conditions of intentionality, however, Husserl remained open to the charge of not having given due attention to the affective or 'existential' dimensions of such world-openness. Philosophical anthropologists and Heidegger alike both strove to correct what they perceived as a glaring omission in Husserl's account of the world, recapitulating Herder's anthropological objections to Kant at the end of the eighteenth century. The former attempted to ground transcendental "world openness" in the concrete biological structure of the human organism. But if world openness promised ingenuity and infinite variability, it also came at a cost: a heightened exposure to anxiety. It was the result of humans' constitutive lack of a proper place assigned by nature, the sense of not entirely belonging to a world that appeared congenitally indifferent to human existence. Gehlen adduced from this fact the necessity of "institutions," normative complexes understood as cultural prostheses, which, like their technological counterparts, could "stand in" for this natural deficiency and ward off anxiety and the threats posed by the natural world. In simplifying the world by presenting it in ready-made forms, such prostheses disburdened the human animal of the psychic overload incumbent on the fact of world openness—it served as a filter for sorting out the signal from the noise.[57]

Although Heidegger denied every suggestion of affinity, *Being and Time* was often read as a contribution to philosophical anthropology, another attempt parallel to and in competition with Scheler's to merge phenomenology and existentialism with research on the specificity of the concrete human being. His lecture course from the year following the publication of *Being and Time*, *Fundamental Concepts of Metaphysics*, only served to reinforce this impression because of its lengthy meditations on the world concept with reference to the distinction, drawn by ethologist Jakob von Uexküll, between world [*Welt*] and environment [*Umwelt*].[58] In any case, for many aspiring philosophers in the 1920's and 1930's, Heidegger's lengthy meditations on "worldhood" and "being-in-the world" as the primary characteristic of human Dasein offered an existentially richer alternative to the excessive cognitivism of Husserl's transcendental account of the world.

Around the same time Heidegger began to emphasize the question of being as it had appeared in Leibniz's metaphysics—why is there something rather than nothing?—Scheler proposed something similar with respect to the world. This was the question, "Why is there a world *at all*, and why is it that 'I' exist in the first place?"[59] For Scheler, the ability to ask this question reflected the experience of contingency made possible by human eccentricity and world openness. Philosophy

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[56] Edmund Husserl, *Ideas: General Introduction to Pure Phenomenology*, ed. Dermot Moran (London ; New York: Routledge, 2012); Sang-Ki Kim, *The Problem of the Contingency of the World in Husserl's Phenomenology* (John Benjamins Publishing, 1976).
[57] Arnold Gehlen, *Urmensch und Spätkultur: philosophische Ergebnisse und Aussagen* (Klostermann, 2004); Arnold Gehlen, *Man* (New York: Columbia University Press, 1988); Arnold Gehlen, *Man in the Age of Technology*, European Perspectives (New York: Columbia University Press, 1980); Helmuth Plessner, *Die Stufen des Organischen und der Mensch: Einleitung in die philosophische Anthropologie* (Berlin: De Gruyter, 1965); Birgit Recki, "Technik als Kultur Plessner, Husserl, Blumenberg, Cassirer," *Zeitschrift für Kulturphilosophie* 2013, no. 2 (December 1, 2013): 287–303; Joachim Fischer, "Philosophische Anthropologie — Ein wirkungsvoller Denkansatz in der deutschen Soziologie nach 1945 / Philosophical Anthropology — An Important Approach in Post-war German Sociology," *Zeitschrift für Soziologie* 35, no. 5 (2006): 322–47; Joachim Fischer, *Philosophische Anthropologie: Eine Denkrichtung des 20. Jahrhunderts* (Freiburg im Breisgau: Verlag Karl Alber, 2016); This idea dates back at least to Johann Gottfried Herder, if not already to the myth of Prometheus as described in Plato's *Protagoras*. Nicholls, *Myth and the Human Sciences*, 49, 129.
[58] Martin Heidegger, *The Fundamental Concepts of Metaphysics: World, Finitude, Solitude* (Bloomington: Indiana University Press, 2001).
[59] Scheler, *The Human Place in the Cosmos*, 63.

and religion had been the two primary responses to this situation. "After the discovery of the contingency of the world and of the curious accident of his place outside the world," Scheler wrote, the human being could either, out of wonder, turn to theoretical and metaphysical contemplation of the universe, or else could begin to populate this empty world sphere beyond the world with forms and "imaginary figures" offering comfort and protection. Religion and even anthropogenesis appeared to Scheler as an overcoming of this *nihilistic* experience of contingency. The projection of imaginary figures "began with alienation from nature and the objectification of nature and with simultaneously becoming his own self and self-conscious, because the human being seemed to be on the brink of falling into pure nothingness. Overcoming this nihilism by means of such protection and backed by such support is what we call 'religion.'"[60] Here the origin of religion and myth is found to be equiprimoridial with the origin of the human being. Echoing Ludwig Feuerbach, but without the materialist's critical intent, Scheler viewed theogenesis as co-constitutive with anthropogenesis.[61] It was no accident that Scheler, in the same text, proposed a new "myth" of human self-deification, which would occupy Blumenberg in his great 1979 text, *Work on Myth*.

Well before the "anthropological turn" in the 1970's to which *Work on Myth* belonged, the phenomenological concept of the world played a significant role in Blumenberg's work, especially given his upbringing in phenomenology and the centrality of the history of speculative cosmology to many of his individual projects. The massive *Genesis of the Copernican World* from 1975 was only the most spectacular among them.[62] Although Scheler does not appear by name in Blumenberg's early works, his influence is palpable.[63] Blumenberg, from his earliest writings, believed the historical effectiveness of nihilism as a kind of "world loss" owed to its affective power over the concrete human being concerned about its existence. Like so many other twentieth-century philosophers in the realms of phenomenology and existentialism, especially Heidegger and Sartre, Blumenberg repeatedly assigned anxiety a leading role in his narrative of history and his conception of human existence. And like them, Blumenberg understood the groundlessness revealed in the experience of nihilism as embracing a specifically *cosmic* form of anxiety. If Nietzsche had emphasized nihilism as the devaluation of all prior *values*, for most working within or beyond the phenomenological tradition, nihilism appeared as a problem of "being-in-the-world," as a loss of cosmic-existential orientation and security.

After the Second World War several of Heidegger's most prominent students appealed to a similar form of "acosmic" nihilism to describe their present. Their differences aside, they concurred with Nietzsche and Heidegger over Scheler, viewing nihilism less as a consequence of the biological structure of the human being or the phenomenological structure of consciousness than as a product of history. Nihilism, for most, was a problem specific to European modernity. What Heidegger

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[60] Scheler, 64.

[61] No wonder then that Blumenberg would revisit Scheler's myth of the co-becoming of human and god in a more ironic vein in 1979's *Work on Myth*, a work that appeared to return to Scheler's thesis of an original "recognition" of contingency at the key turning point in human evolution. Perhaps it was an ironic appraisal of his previous appropriation of Scheler's figure of the "contingency of the world" to describe the genesis, not of the human being in general, but rather that "late phase of anthropogenesis" he had called modern "human self-assertion." See Blumenberg, *Work on Myth*. **Find page numbers.**

[62] The most notable examples included *The Genesis of the Copernican World*, trans. Robert M. Wallace (Cambridge: The MIT Press, 1985); *Lebenszeit und Weltzeit* (Frankfurt am Main: Suhrkamp, 1986).

[63] In fact, his dissertation advisor, Ludwig Landgrebe, a former assistant of Husserl's who was deeply influenced by Scheler, had also been concerned with this issue. See his "The World as a Phenomenological Problem," *Philosophy and Phenomenological Research* 1, no. 1 (1940): 38–58; Even more, Scheler's anthropology was at stake in the Heidegger-Cassirer Davos dispute, and event whose influence on Blumenberg has been noted frequently. See, Pavesich, "Hans Blumenberg's Philosophical Anthropology"; Peter E. Gordon, *Continental Divide: Heidegger, Cassirer, Davos* (Cambridge, Mass: Harvard University Press, 2010); Nicholls, *Myth and the Human Sciences*.

described as "The Age of the World Picture" and Hannah Arendt called "world alienation" became a hallmark of a modernity in which an abstract technological rationality had slowly eroded the human being's embeddedness in an authentic and meaningful world.[64] Even more influential for Blumenberg's development, Hans Jonas detected in modern existentialism the same nihilism produced not only in technological society, but also in the speculations of the heretical Gnostic sects that had plagued early Christianity, a motif articulated around the same time with reference to totalitarianism by Austrian-American political theorist Eric Voegelin.[65] Sketching a motif central to Blumenberg's argument in *Legitimacy of the Modern Age*, Jonas described how ancient Gnostics like Marcion, intent on protecting God's radical transcendence, distinguished the true redeemer God from the Old Testament God of creation. The latter was nothing more than an evil demiurge, whereas the true God was an "alien" God who had no connection to this world. Just as modern bureaucratic order later suggested to Weber the metaphor of an "iron cage," the apparent orderliness of the visible world appeared to the Gnostics not as the basis of life, but as the manifestation of a cosmic prison. Modern European history had demonstrated to Jonas that the human provision of order could not recuperate the cosmos that Gnosticism had destroyed, but was instead fated to reproduce the Gnostic gesture. Only a new engagement with the Greek notion of *physis* (nature) that dispensed with every attempt at human mastery would be able to recover the harmony and reliability of the universe and finally overcome modern European nihilism.

» 4 «
Séances of the Artificial
Automatism, the Demonism of Technology, and "Second Nature"

The nihilism discourse in postwar West Germany was inextricably entwined with the so-called "demonism of technology" prevalent among critics of modernity in the mid twentieth century. Although Blumenberg would begin to refer dismissively to this "demonism" by 1951, he tended not to engage with its proponents head-on, but as in most of his work, circuitously, through allusive detours through the history of philosophy. His only sustained discussion of the twentieth-century philosophy of science and technology in the 1950's was an essay from 1958 on Husserl. Perhaps owing to Husserl's greater attachment to the tradition of Enlightenment reason and modern science, Blumenberg spent considerably more effort wrestling with the older phenomenologist's critique of that tradition than with those more overtly hostile to modern rationality.

Husserl, after all, was no opponent of natural science. Like his contemporary, neo-Kantian philosopher Hermann Cohen, Husserl viewed phenomenology as a rigorous means of securing the basis for the progress of modern natural science. Like that science, Husserl saw phenomenology as

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[64] Hannah Arendt, *The Human Condition*, 2nd ed (Chicago: University of Chicago Press, 1998); Martin Heidegger, "The Age of the World Picture," in *Off the Beaten Track*, ed. Julian Young and Kenneth Haynes (Cambridge ; New York: Cambridge University Press, 2002), 57–85; Benjamin Lazier, "Earthrise; or, The Globalization of the World Picture," *The American Historical Review* 116, no. 3 (June 1, 2011): 602–30.

[65] Hans Jonas, *The Gnostic Religion*, 3rd edition (Boston: Beacon Press, 2001); Benjamin Lazier, "Overcoming Gnosticism: Hans Jonas, Hans Blumenberg, and the Legitimacy of the Natural World," *Journal of the History of Ideas* 64, no. 4 (2003): 619–37; Benjamin Lazier, *God Interrupted: Heresy and the European Imagination between the World Wars* (S.l.: Princeton University Press, 2012); Tibaldeo, "Hans Jonas' 'Gnosticism and Modern Nihilism', and Ludwig von Bertalanffy"; Hotam, "Overcoming the Mentor"; Eric Voegelin, *The New Science of Politics: An Introduction* (University of Chicago Press, 2012); Eric Voegelin, *Science, Politics and Gnosticism: Two Essays* (Simon and Schuster, 2012); Peter Baehr and Gordon C. Wells, "Debating Totalitarianism: An Exchange of Letters between Hannah Arendt and Eric Voegelin," *History and Theory* 51, no. 3 (2012): 364–80; Clifford F. Porter, "Eric Voegelin on Nazi Political Extremism," *Journal of the History of Ideas* 63, no. 1 (January 2002): 151.

charged with an "infinite task." But after lived through the tumultuous upheavals of the 1930's his more pollyannaish hopes appeared ever more precarious. Husserl joined the chorus of voices bemoaning the deleterious effects to human life of abstract mathematical science and its contribution to the increasingly automatic technization of the world in his 1936 work, *Crisis of the European Sciences and Transcendental Phenomenology*. Against this historical tendency as initiated by Galileo and yet in the name of Enlightenment Husserl opposed the comforting embrace of the pre-reflective and intersubjective "lifeworld," a concrete expansion of his previous, abstract world concept into an ever-renewable resource of "meaningful foundations" which all human projects, including natural science and history itself, necessarily presupposed.[66] Technical abstraction was not only a product of the lifeworld; it was positively parasitic upon it. The lifeworld's seemingly inexhaustible reserves of *meaning* were being depleted by the unfulfilled and unfulfillable promise of a fully mathematized universe. Against such a threat phenomenology could offer little in the way of redemption—at most it sought to provide a therapeutic remedy against what may have appeared an inexorable fate.[67]

If Blumenberg later viewed modern technization as an existential response to rather than cause of the experience of nihilism, his earliest writings on the topic from 1950 shared the anti-technological sentiment of most German philosophers of the time. In most iterations, the discourse of nihilism proposed that the dangers of unconstrained human pretension to autonomy lay in their engendering of an uncontrollable autonomy of the non- or even anti-human. The modern apotheosis of human autonomy perversely revealed itself to be the nadir of heteronomy. The image of Hiroshima, August 6th, 1945, offered German thinkers a convenient—and significantly non-German—symbol of the "demonism of technology" threatening human civilization on a planetary scale.[68] Accordingly, by radicalizing self-assertion of the human will in the externalized form of a technological domination over nature, the Enlightenment had relinquished the very autonomy it had needed to make of the human an ethical, responsible, and creative subject. The similarity of this argument to Horkheimer and Adorno's *Dialectic of Enlightenment*, published six years earlier, and which he almost certainly had not yet read, is striking.[69]

Few postwar critiques, however, actually amounted to anything philosophically novel. Most of the conceptual resources of the postwar techno-nihilism discourse had long since been harvested by the 'heretical' and antinomian strains of the Weimar intellectual ferment, if not long before.[70] The less original among its twentieth-century critics merely regurgitated the century-old Romantic

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[66] Edmund Husserl, *The Crisis of European Sciences and Transcendental Phenomenology: An Introduction to Phenomenological Philosophy*, trans. David Carr (Evanston: Northwestern University Press, 1970). I return to Blumenberg's discussion of this text in section 6 of the present chapter.

[67] I will discuss this issue in greater detail in Chapter Nine. For Blumenberg's complex and evolving interest in the lifeworld concept, see: Hans Blumenberg, "Lebenswelt und Technisierung unter Aspekten der Phänomenologie," in *Wirklichkeiten in denen wir leben: Aufsätze und eine Rede* (Stuttgart: P. Reclam, 1981); Hans Blumenberg, *Theorie der Lebenswelt*, ed. Manfred Sommer (Berlin: Suhrkamp Verlag, 2010); Hans Blumenberg, "The Life-World and the Concept of Reality," in *Life-World and Consciousness: Essays for Aron Gurwitsch*, ed. Aron Gurwitsch and Lester Embree, Northwestern University Studies in Phenomenology & Existential Philosophy (Evanston, Ill: Northwestern University Press, 1972); For a succinct discussion of Blumenberg's relation to the lifeworld concept, see Nicholls, *Myth and the Human Sciences*, 106–9; For more contemporary philosophical reflections, see Hans Ulrich Gumbrecht, "Everyday-World and Life-World as Philosophical Concepts: A Genealogical Approach," *New Literary History* 24, no. 4 (1993): 745–61; Don Ihde, *Technology and the Lifeworld: From Garden to Earth* (Bloomington: Indiana University Press, 1990).

[68] One of Blumenberg's earliest preserved texts from 1946 addressed precisely this issue. See "Atommoral - Ein Gegenstück zur Atomstrategie," in *Schriften zur Technik*, ed. Alexander Schmitz and Bernd Stiegler (Berlin, 2015).

[69] Max Horkheimer and Theodor W. Adorno, *Dialectic of Enlightenment*, trans. Gunzelin Schmid Noerr and Edmund Jephcott (Stanford, CA: Stanford University Press, 2007).

[70] Lazier, *God Interrupted*.

imaginary of the creative-demonic, which found its most iconic expression in Goethe's several variations on the theme: Faust, Prometheus, and the Sorcerer's Apprentice.[71]

In the public imagination those figures Jeffrey Herf so memorably dubbed "reactionary modernists" dominated the conversation about the contemporary relationship between man and machine.[72] Most employed the crude reading of Nietzsche that cast him as a prophet heralding the decline of Western civilization by way of technologically induced doom. In proper antinomian form, however, the only possible path to redemption appeared to be by way of a pact with the devil. If the new dispensation of fate was one of technological mastery, the power of such fate could not itself be mastered, but at most harnessed through obedient submission. Oswald Spengler and Ernst Jünger thus made the Faustian bargain with technological power into the basic plank of an aesthetic and cultural anti-politics.[73]

Few, however, grappled with the philosophical meaning of technology on its own terms. What mattered most was to capture rhetorically and represent aesthetically the purifying *power* that technology, even before World War One, had begun to symbolize, as exemplified in the violent and cacophonous fantasies of Futurism. But as the steel and alchemy, the machinery, factories and titanic edifices of the Second Industrial Revolution became a symbol of the *loss* of control, of the disappearance of an antiquated notion of human will power at the world historical peak of its planetary extension, many felt the demand to reconsider the human relationship to technology.[74] The engineer, for example, rapidly gained in cultural capital, but could just as easily appear as a hero as a villain.[75] In the years that witnessed the birth of the new aesthetics of industrial design in

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[71] Posterity has not been kind to German Romanticism's relationship to modern science and technology. In its commonplace portrayal as an irrationalist cult of feeling, mysticism, aesthetic genius, the ineffable, individuality and nostalgia for the organicism of medieval politics, Romanticism accrued for generations a reputation as the shadowy successor to the Olympian and mechanicist Enlightenment it rejected. Notwithstanding numerous corroborative examples, recent research has recovered another German Romanticism, which appeared as an extension of the Aufklärung and German Idealism, and which, moreover harbored a notable scientific appreciation for mechanical technology. Of course, Mary Shelley's *Frankstein* and ETA Hoffmann's *The Sandman* have long belonged in the canon of Romantic literature. Although emphasizing artistic more often than technical creation, in cementing the alliance between creative genius and the demonic, Romanticism affirmed the centrality of the same creative will-power that underpinned modern scientific and technological development. Myth, the theological mystery of the transcendent God, and the hidden sources of technological creation found echoes in the ferment of Romantic philosophical speculation on the wellsprings of nature. No longer a resplendent beauty to be contemplated in repose, nature became instead a sublime, abyssal and chthonic power that provoked aesthetic and technical activity by way of fascination and terror. On continuities between the Enlightenment and Romanticism in Germany, see Manfred Frank, *The Philosophical Foundations of Early German Romanticism* (Albany: SUNY Press, 2012); Frederick C. Beiser, *The Romantic Imperative: The Concept of Early German Romanticism* (Harvard University Press, 2006); For recent English accounts of Romanticism's more positive relationship to mechanical technology, see John Tresch, *The Romantic Machine: Utopian Science and Technology after Napoleon* (Chicago: University of Chicago Press, 2012); Jessica Riskin, *The Restless Clock: A History of the Centuries-Long Argument over What Makes Living Things Tick* (Chicago: University of Chicago Press, 2016); Matthew L. Jones, *Reckoning with Matter: Calculating Machines, Innovation, and Thinking about Thinking from Pascal to Babbage* (Chicago ; London: The University of Chicago Press, 2016).

[72] Herf, *Reactionary Modernism: Technology, Culture, and Politics in Weimar and the Third Reich* (Cambridge University Press, 1984).

[73] "Spengler contended that authentic Faustian man created things not for the sake of security, craved by the masses, but instead for the sheer life-affirming experience of victory. But at the very pinnacle of technological culture, the decline sets in. Just as Faustian man rebelled against nature, so his machine technology now rebels against him: 'The master of the world becomes the slave of the machine. It compels him, us, and indeed all without exception, in the direction of its course, whether we know and want it, or not.'" Zimmerman, *Heidegger's Confrontation with Modernity*, 28.

[74] Langdon Winner, *Autonomous Technology: Technics-out-of-Control as a Theme in Political Thought* (Cambridge, Mass.: MIT Press, 1978).

[75] Adelheid Voskuhl, "Engineering Philosophy: Theories of Technology, German Idealism, and Social Order in High-Industrial Germany," *Technology and Culture* 57, no. 4 (November 16, 2016): 720.

Bauhaus and Le Corbusier, Ernst Jünger anointed the unification of art and technology under the aegis of a mythical and cosmic will to power.[76] In Jünger's vision, as Michael Zimmerman put it, "the essence of modern technology was nothing technical; instead, the essential was the fact that humanity had been gripped by an irresistible will to dominate, which expressed itself in the guise of machine technology. He believed that humanity would be both saved and elevated only if it submitted itself to the nihilistic claim of the technological Will to Power."[77] Carl Schmitt's concept of "technicity" more or less extended this voluntaristic demonism into the heart of European law and politics, as the ideological counter-power to an openly and authentically *political* voluntarism. Liberalism's belief in the primacy of formal legal machinery, he chided, was little more than an ideological deception masking the extra-legal violence of a technical will to mastery.[78] Other leading lights of the conservative revolution, notably sociologist Hans Freyer, similarly recognized in the specter of technology a call to a new authoritarian political dispensation.[79]

Of course, philosophical anxiety over modernity's technological dispensation was by no means an exclusive preserve of conservative reaction. Spanning the political spectrum, many of the terms of the conversation had already gelled under the heading of "rationalization" in Max Weber's writings on science and bureaucracy. Both Max Horkheimer and Carl Schmitt availed themselves of Weber's account of purposive (instrumental) rationality in their characterizations of modern science and technology.[80] And of course, Husserl's aforementioned *Crisis of the European Sciences* stands alongside Weber's disenchantment thesis as one of the most influential treatments of the threat posed to "European civilization" by the abstractions of a technologized modern natural science.

Blumenberg's first full-throated defense of modern "technization" appeared in 1958 as an immanent critique of Husserl's opposition of lifeworld and technization in *Crisis*, one focused on the concept of contingency. I will return to that text in sections seven through nine of this chapter. His writings on technology from earlier in the decade, by contrast, were more ambivalent. While officially rejecting the "demonism of technology" already by 1951 in "The Relationship of Nature and Technology as a Philosophical Problem," Blumenberg still remained fixated on the same trope that preoccupied the "demonologists:" the threat posed by technological *autonomy*.

Foreshadowed in his reading of modern technological and bureaucratic rationality in Kafka as a failed attempt to establish a reliable plane of existence, this autonomy appeared to have reached its apotheosis in the paradoxical form of a "second nature." Far from an outgrowth of natural

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[76] Elliot Y. Neaman, *A Dubious Past: Ernst Jünger and the Politics of Literature after Nazism*, First Edition edition (Berkeley: University of California Press, 1999); Hans Blumenberg, *Der Mann vom Mond: über Ernst Jünger* (Frankfurt am Main: Suhrkamp, 2007); Laurence Paul Hemming, "Work as Total Reason for Being: Heidegger and Jünger's 'Der Arbeiter,'" *Journal for Cultural Research* 12, no. 3 (July 2008): 231–51; Daniel Morat, *Von der Tat zur Gelassenheit: konservatives Denken bei Martin Heidegger, Ernst Jünger und Friedrich Georg Jünger, 1920-1960* (Wallstein Verlag, 2007); Daniel Morat, "No Inner Remigration: Martin Heidegger, Ernst Jünger, and the Early Federal Republic of Germany," *Modern Intellectual History* 9, no. 03 (November 2012): 661–79.

[77] Zimmerman, *Heidegger's Confrontation with Modernity*, 55.

[78] Carl Schmitt, "The Age of Neutralizations and Depoliticizations," in *The Concept of the Political: Expanded Edition*, trans. George Schwab, Enlarged edition (Chicago: The University of Chicago Press, 2007); Hans Blumenberg, *Briefwechsel 1971-1978 Und Weitere Materialien*, 1. Aufl (Frankfurt am Main: Suhrkamp, 2007); Karl Löwith, "Max Weber und Carl Schmitt," *Frankfurter Allgemeine Zeitung*, June 27, 1964; John P. McCormick, *Carl Schmitt's Critique of Liberalism: Against Politics as Technology* (Cambridge; New York: Cambridge University Press, 1997). I will return to this theme in Carl Schmitt in Parts II and III.

[79] Jerry Z. Muller, *The Other God That Failed: Hans Freyer and the Deradicalization of German Conservatism* (Princeton University Press, 1987); Laak, "From the Conservative Revolution to Technocratic Conservatism."

[80] Max Horkheimer, *Critique of Instrumental Reason* (Verso Books, 2014); Horkheimer and Adorno, *Dialectic of Enlightenment*; Herbert Marcuse, *One-Dimensional Man: Studies in the Ideology of Advanced Industrial Society*, ed. Douglas Kellner (Boston: Beacon Press, 1991); Schmitt, "The Age of Neutralizations and Depoliticizations"; McCormick, *Carl Schmitt's Critique of Liberalism*.

science, the mere application of natural laws to human purposes, technology represented a decisive break with "nature," a category Blumenberg identified in the 1950's with the Greek cosmos ideal.[81] Proposing a theme that would dominate his narrative of modernity for the next two decades, Blumenberg argued that technology only arose out of the theologically induced destruction of the Greek nature-cosmos. But as human power over nature increased, that power, as embodied in machine technology, especially the new cybernetic machines beginning to make headlines by 1951, had become an increasingly autonomous force in history. The natural world, Blumenberg contended, had been overlaid by a second, "perfected machine world," which replicated the essential features of the first nature: immanent self-creation and organization.[82] If in his dissertation Blumenberg rejected Heidegger's imputation of a derivative status to medieval ontology, here he rebuffed even more firmly Heidegger's insistence that modern technological "enframing" simply represented the fateful unfolding of ancient productionist metaphysics.[83] The image of industrial production was historically secondary to the impulse to creating a self-organizing world that already broke out in the seventeenth century, with its fascination for automata.[84]

Technology became in Blumenberg's eyes less and less an inauthentic flight from groundlessness, appearing already by late 1951 as a legitimate and even *original* means of grappling with the groundlessness of world contingency. A properly *philosophical* understanding of technology, he contended, could only be hindered by claims of its existential inauthenticity. Instead Blumenberg aimed to restore a sense of existential depth to the technical, something akin to what historians of the modern United States have dubbed the "technological sublime."[85] Technological innovation and mastery could no longer simply be chalked up to Faustian or Promethean hubris, but had become an existential and deeply human necessity. Hence the modern era had made of this "necessity" a "virtue, namely the worth, pride, and hubris of human autonomy and autarky."[86] The very fact that technology was *able* to repress the experience of absolute groundlessness implied it had a claim on something more profound than Blumenberg had previously allowed. How, after all, could technology repress an absolute if it were not itself an absolute?[87]

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[81] In non-trivial respects, Blumenberg's image of the Greek cosmos also corresponded quite closely to the "closed world" or "environment" that philosophical anthropologists and Heidegger had ascribed to animals.

[82] "The characteristic of natural being, that it carries the principle of its formation and its function within itself, is consequentially transported into the ream of the technical work. Herein lies the impulse to the designing of automata, of those machines, the 'from-out-of-itself' [*Aus-sich-Selbst*] functioning images of the modern world, which can appear all the more adequate to the 'first nature' the more the latter could be successfully understood according to the schema of a world-automaton." Hans Blumenberg, "Das Verhältnis von Natur und Technik als philosophisches Problem," in *Ästhetische und metaphorologische Schriften*, Auflage: 3 (Frankfurt am Main: Suhrkamp Verlag, 2001), 265.

[83] Martin Heidegger, *The Question Concerning Technology, and Other Essays* (New York : Harper Perennial Modern Classics, 2013).

[84] "That the machine 'produces,' that it is made industrially useful, is, in contrast, only a later and secondary move, so that one may not affix the first break to the invention of the industrial machine (1825: mechanical loom), but rather must be traced back to the baroque 'play'-world [*'Spiel'welt*] of automata, to the dream of a 'Perpetuum mobiles', to the absolute technical *Aus-sich-Selbst*. The keyword, however, of this essential tendency of the technical world-comportment towards 'second nature' is the non-concept [*Unbegriff*] of 'organization,' which presupposes the organic as the product of a construction." Blumenberg, "Das Verhältnis von Natur und Technik als philosophisches Problem," 265.

[85] David E. Nye, *American Technological Sublime*, Reprint edition (Cambridge, Mass.: The MIT Press, 1996); Nye has even extended this analysis of the religious dimensions of technology in the American imagination to the idea of a "second creation," suggesting further compelling parallels with Blumenberg's work from this period. David E. Nye, *America as Second Creation: Technology and Narratives of New Beginnings* (MIT Press, 2004).

[86] Blumenberg, "Das Verhältnis von Natur und Technik als philosophisches Problem," 264.

[87] "But with the concept of 'second nature' do we now stand at the end of the possible consequences implied by the modern understanding of being? Does the 'second nature' of a perfected machine world deliver on the claim of 'unconditioned production', as Heidegger named the technical will, or does it lie in the immanent tendency of such unconditionality that it tolerates nothing beside itself, that is, that 'second nature' has not only supplied the power to

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What Kind of Concept is Contingency? On Symbols, Metaphors, and Concepts of Reality

At this point it will prove expedient to take a brief detour through Blumenberg's important methodological innovations with regards to the history of ideas. This is not only because my object, contingency, counts among such ideas, but also because Blumenberg's understanding of real-world activity of discursive figures bore an inextricable relation to his interpretation of contingency and the experience of the absolute. Although as a historian of ideas Blumenberg privileged discursive relationships to reality, he grounded them, as described above, in broader considerations of their function with respect to world-orientation and existential affects like anxiety. In a sense not entirely dissimilar from Koselleck and Luhmann, Blumenberg emphasized the "function" of concepts within a specific historical constellation over their purely discursive or logical content. But unlike Luhmann, Blumenberg understood the "reference point" of these functions, that 'for' which they function, to be human Dasein. A great deal of Blumenberg's account of historical change centered on the question of how Dasein has discursively managed its relationship to reality. What Freud had called the "reality principle" appeared to Blumenberg as both axiom and product of historical anthropogenesis: the inexorable pressure to face up to reality in order to survive demanded the construction of cultural representations of something that could only be called "reality" at a comparatively late stage in cultural evolution. In other words, the concepts of reality humans use to orient themselves in the world are not the spontaneous and imaginary fantasies of the pleasure principle, but *techniques,* cultural deposits that survived the long-term struggle to cope with an unmasterable and paradoxical reality.[88]

Influenced by but also opposed to core tenets of Heidegger's historicizing of ontology, Blumenberg deployed this "functionalist" approach to the history of philosophy to address the question of how historical epochs presupposed and formed around different "concepts of reality." Such a perspective itself presupposed a prior recognition of the contingency of interpretation of reality, and contingency itself designated a certain perspective on the nature of this reality. In fact, two of the four major historical concepts of reality described in Blumenberg's contribution to the first meeting of *Poetik und Hermeneutik* more or less corresponded to the two versions of contingency Marquard would later oppose: reality as the progressive actualization of an open context, and reality as resistance, recalcitrance, and the encounter of paradox.[89]

With "contingency" Blumenberg imparted to the postwar West German intellectual world a highly fungible and ambiguous concept, which resisted simple assignment to one side of any major distinction. In fact, this irreducibly protean logic of contingency, as both an element of tradition and the dissolving agent of tradition, as both the destruction and creation of order, as expressive of both radical dependency and autonomy, accounts for a great deal of its rhetorical power among members

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sublate [*aufheben*] 'first nature,' but rather according to its essence presses forward to such an end? The experiences of humanity with this last phase of possible technical realization is only at the beginning." Blumenberg, 265. This issue of opposed absolutes would come to form a major theme of 1979's *Work on Myth*.

[88] Although fully articulated only after his anthropological turn in the 1970's, this perspective implicitly informed much of Blumenberg's methodological approach to intellectual history even in the late 1950's, due in part to his early fascination with Heidegger. Hans Blumenberg, "Anthropologische Annäherung an die Aktualität der Rhetorik," in *Wirklichkeiten in denen wir leben: Aufsätze und eine Rede* (Stuttgart: P. Reclam, 1981); Hans Blumenberg, "An Anthropological Approach to the Contemporary Significance of Rhetoric," in *After Philosophy: End Or Transformation?*, ed. Kenneth Baynes, James Bohman, and Thomas A. McCarthy (MIT Press, 1987); Blumenberg, *Work on Myth*.

[89] Hans Blumenberg, "The Concept of Reality and the Possibility of the Novel," in *New Perspectives in German Literary Criticism*, ed. Richard E. Amacher and Victor Lange (Princeton: Princeton University Press, 1979).

of the *Flakhelfer* generation. Not unlike the attribute of "ideologizability" which Reinhard Koselleck has claimed as one of four key characteristics of modern basic concepts [*Grundbegriffe*], contingency's ability simultaneously to serve opposed interests as a polemical instrument contributed mightily, in today's parlance, to its having gone 'viral' in the Federal Republic in the 1960's and 1970's.[90]

But concepts are hardly the only, let alone the most significant among discursive relationships orienting humans in the world. Contingency may have been one of very few authentically Christian metaphysical concepts according to Blumenberg, but it was also one of very few *concepts* to which he devoted special and nearly continuous attention across his oeuvre. Although counterintuitive, this is not insignificant. Blumenberg's claim to fame had been due in no small part, after all, to his encyclopedic and erudite explorations of metaphors, myths, and the various elements belonging to that more general domain of what he came to call "non-conceptuality." The "metaphorology"[91] constituted Blumenberg's first proposal for a direct yet experimental response to what he perceived as the limitations of Erich Rothacker, Joachim Ritter and Hans-Georg Gadamer's project for a philosophical history of concepts—although their journal, *Archiv für Begriffsgeschichte*, published *Paradigms for a Metaphorology* in 1960 at Rothacker's behest.[92]

Although metaphors are as old as language, Blumenberg claimed, they assumed a new status in the post-cosmic cultural world of European modernity. Because logos and cosmos corresponded perfectly in Greek (read: Platonic) metaphysics, there was nothing metaphors could express that theoretical concepts could not express better. Metaphors, and indeed, the entire domain of what the ancients called rhetoric, had belonged to a subordinate category in the annals of philosophy since Plato's diatribes against the Sophists. They had thus suffered the ignoble status of mere "leftovers" that still awaited translation back into transparent, conceptual language. The history of philosophical concepts, accordingly, could only serve the clarification of concepts in the present by treating their history as a source of error and confusion. It could thus have no more than a provisional status, destined to become defunct or, at best, of antiquarian interest once the system of concepts attained perfect definition.

If human thought was not to be reduced to a passive, logically complete reflection or imitation of a pre-given nature, then some account of the historical origins of the products of human thought would have to be sought, which did not reduce their function to a mere progressive "uncovering" of a hidden or obscured truth. For Blumenberg, this meant paying attention to the genesis of thought not only in reason or the understanding, but also in the domain of the imagination, the engine of creation and fount of metaphor. Availing himself of a metaphor Luhmann would later adapt to describe contingency, Blumenberg called the "realm of the imagination" a "catalyst," which, unlike a "reservoir" (another metaphor frequently used to describe

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[90] Reinhart Koselleck, "Einleitung," in *Geschichtliche Grundbegriffe: historisches Lexikon zur politisch-sozialen Sprache in Deutschland*, ed. Otto Brunner, Werner Conze, and Reinhart Koselleck (Stuttgart: Klett-Cotta, 2004); For some recent appraisals of the relationship of Blumenberg's project to Koselleck's, see Frank Beck Lassen, "'Metaphorically Speaking' - Begriffsgeschichte and Hans Blumenberg's Metaphorologie," in *Eine Typologie Der Formen Der Begriffsgeschichte*, ed. Ricardo Pozzo and Marco Sgarbi (Hamburg: F. Meiner, 2010); Timo Pankakoski, "Reoccupying Secularization: Schmitt and Koselleck on Blumenberg's Challenge," *History and Theory* 52, no. 2 (May 1, 2013): 214–45.

[91] Hans Blumenberg, *Paradigms for a Metaphorology*, trans. Robert L. Savage (Ithaca, N.Y: Cornell University Press, 2010); Hans Blumenberg, *Shipwreck With Spectator: Paradigm of a Metaphor for Existence* (MIT Press, 1997); Blumenberg, *Work on Myth*; Hans Blumenberg, *Theorie der Unbegrifflichkeit*, ed. Anselm Haverkamp, 2 edition (Frankfurt am Main: Suhrkamp Verlag, 2007); Hans Blumenberg, *Ästhetische und metaphorologische Schriften*, Auflage: 3 (Frankfurt am Main: Suhrkamp Verlag, 2001); Anselm Haverkamp, ed., *Theorie der Metapher* (Darmstadt: Wissenschaftliche Buchgesellschaft, 1996); Haverkamp, "The Scandal of Metaphorology"; Anselm Haverkamp and Jean-Claude Monod, eds., *Philosophie de la métaphore: penser avec Blumenberg* (Paris: Hermann, 2017).

[92] Haverkamp, "The Scandal of Metaphorology," 42; For more on Rothacker, see the discussion in Fischer, *Philosophische Anthropologie*; For more on Blumenberg's relationship to Rothacker, see Nicholls, *Myth and the Human Sciences*.

the imagination) can produce ever-new discursive expressions when exposed to inscrutable or impossible situations without being "exhausted" in the process. Although not a manifestation of 'pure' spontaneity, as some had held, the imagination produced metaphors as a means of coping with an otherwise intractable, paradoxical, and contingent reality.

The metaphorology as a philosophical project also found legitimation within Blumenberg's narrative account of modernity. In the 1957 text "Imitation of Nature" in particular Blumenberg described the rise of modern "creative being," encompassing technical as well as artistic innovation, as the result of the cosmos-destroying expansion of the ontological scope of possibility into infinity. As sui generis "techniques" for managing the groundlessness suddenly opened up by an infinite and contingent universe, metaphors belonged among the stock products of authentic human ingenuity. With every new metaphor something profoundly unprecedented entered the universe. The "task of a metaphorology," Blumenberg submitted in *Paradigms*, would have to be "concerned with detecting the logical 'perplexity' for which metaphor steps in." Far from mere "*leftover elements*, rudiments on the path *from mythos to logos*," metaphors are the "*foundational elements* of philosophical language."[93] Those metaphors, whose "expressive function" resists exhaustive translation into conceptual language, Blumenberg called "absolute metaphors." Such devices, among which Blumenberg counted phrases like the "naked truth" or "the incomplete universe," appeared to be capable of handling the inevitable paradoxes that cropped up in every philosophical attempt to give perfect conceptual contours to the seemingly unavoidable human confrontation with absolute.

Of particular significance among absolute metaphors were those more diffuse metaphorical systems Blumenberg called "cosmological background metaphorics." These provided unprecedented access to the human experience of the world, far beyond what could be captured by Husserl's cognitivist account of the world. They made it possible to trace the history of different kinds of "world experience" by attending to the (often implicit) cosmological metaphors circulating in a given age. With which images one imagines the beginning and end of the world, for example, could have the most profound consequences for the entirety of an epoch's outlook. Blumenberg's account of the emergence of modern rationality in *Legitimacy*, for example, came to rely heavily on this procedure: "The modem age's will to a rationality that grounds itself is reflected in the problem of the cosmological initial situation and the choice between orienting background metaphors."[94]

Given Blumenberg's interest in such non-conceptual expressions, the outsized role of the concept of contingency in his work might raise a few eyebrows. Strictly speaking, contingency is not a metaphor, although like most concepts it began as one. But as far as I am aware, Blumenberg never expressed any interest in the metaphorical history of the scholastic concept of contingency, which originated in the Latin term *contingere*, derived from *com* (together) and *tangere* (to touch). The historical significance of contingency, for Blumenberg, seems at first glance to have been exhausted by its rigorously "terminologized" form, which took shape in scholastic theology.[95]

Contingency may not have been a "metaphor" in Blumenberg's strict sense, but at the very least it became, as a result of his efforts, a highly pregnant *symbol* that cut orthogonally across the plane formed by the historical "concepts of reality." By the 1970's contingency at the latest had accrued a new expressive power that could not be replicated by merely conceptual and logical definition. Especially in the hands of its postwar exponents, the formerly highly-terminologized concept of contingency became something approaching a metaphor in its function of "standing in" for an unsolvable existential conundrum. In contingency Blumenberg found a resonant symbolic

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[93] Blumenberg, *Paradigms for a Metaphorology*, 3.

[94] Hans Blumenberg, *The Legitimacy of the Modern Age*, trans. Robert M. Wallace (MIT Press, 1983), 217.

[95] Hans Blumenberg, "Terminologization of a Metaphor: From 'Verisimilitude' to 'Probability,'" in *Paradigms for a Metaphorology*, trans. Robert L. Savage (Ithaca, N.Y: Cornell University Press, 2010), 62–76.

condensation of the paradoxes and difficulties of working through the intellectual prehistory of German modernity, including Blumenberg's own personal resistance to a manifest, rather than a latent working through. Following the lead of Blumenberg's metaphorology, my reading of his influence on postwar *Kontingenzsinn* proposes "to lead beyond the positivity of given words into the many-layered scenery of history."[96] As a term that first gained currency in the context of the Middle Ages, dissolved it from within, and then became the basis of modernity's self-assertion—in other words, as a term that represented both the pinnacle of traditional metaphysics and the principle of its overcoming—contingency embodied the same kind of paradoxical relationship to the past that had characterized Blumenberg's ambivalence about tradition. The historical concept of contingency as well as the problematic experience it described offered a kind of "continuity" in Blumenberg's narrative that mediated the historical rupture dividing the Middle and Modern Ages. As such it could easily accrue the conflicted sentiments of so many German thinkers not only towards the tainted German tradition in particular, but the philosophical project of metaphysics in general, an ambivalence captured with characteristic elegance in Adorno's famous exhortation in the concluding line of *Negative Dialectics* to embrace a "solidarity with metaphysics at the moment of its fall."[97]

» 6 «
The Juridical-Existential Scopics of Contingency

The complex historical dynamics of contingency first became fully evident in Blumenberg's 1958 immanent critique of Husserl's *Crisis of the European Sciences*. After a lengthy exploration of the contradictions driving Husserl's project, "Lifeworld and Technization from the Perspective of Phenomenology concluded with an abstract mediation on the tight connection between the visual metaphorics of phenomenology, the modern "technical attitude," and the historical breakthrough of contingency. This historical constellation issued in Blumenberg's horizontal "scopics" of *Kontingenzsinn*. A phenomenology of European consciousness thus permitted a glimpse into the role played by these scopics in the genesis of the modern world. Far from the denial of every Archimedian point contingency has come to signify, its scopics have long presupposed the speculatively ability to gain distance from the world totality. "*Contingency*," Blumenberg wrote in the final section of the essay,

> signifies the evaluation of actuality [*Beurteilung der Wirklichkeit*] from the standpoint of necessity and possibility. The consciousness of the contingency of reality is now, however, the founding of a technical attitude towards the pre-given: if the given world is only an accidental snippet out of the infinite scope [*Spielraum*] of the possible, if the sphere of natural facts no longer radiates a higher justification and sanction, then the facticity of the world becomes an insistent pressure to not only judge [*beurteilen*] the actual from the perspective of the possible, and therefore criticize it, but also through the realization of the possible, through the exhaustion of the scope of invention and construction, to fulfill the merely factical to a self-consistent cultural world that justifies itself out of necessity [*aus Notwendigkeit zu rechtfertigenden Kulturwelt*]. If we therefore must see contingency as a stimulus to the becoming-conscious of the demiurgic potency of the human being, then it becomes evident how the technical pathos of modernity could develop in correspondence with the most extreme increase of the consciousness of contingency in the late Middle Ages.[98]

[96] Haverkamp, "The Scandal of Metaphorology," 43.
[97] Theodor W. Adorno, *Negative Dialectics*, 2 edition (New York: Bloomsbury Academic, 1981), 408.
[98] Blumenberg, "Lebenswelt und Technisierung unter Aspekten der Phänomenologie," 47.

The "vertical" groundlessness of the world brought into relief by the radicalization of God's will at the hands of the nominalists was the very same consciousness of contingency that would become the ground of the "horizontal" project of the modern age: progress as technization. But this horizontal dimension of *Kontingenzsinn* no longer signified a power, a quality, a thing or an attribute, but, in keeping with the phenomenological standpoint of the essay, a kind of *perspective*: a form of vision that might even be called "triscopic," because it simultaneously holds in view three different modal registers of reality: the actual, the possible, and the necessary. The phenomenological "scopics" of *Kontingenzsinn* thus describes a view of the world from within the world *as if* from beyond the world.[99] To assert the contingency of the world requires an artificial and speculative projection of an impossible Archimedean point beyond the world totality.

Before this schema of a totality that can also be transcended had become available, it had been impossible to claim that this totality or even something in it is *not* necessary with anything like absolute, apodictic certainty. The assertion of contingency, in other words, not only depicts the actual, present-at-hand with reference to "other possibilities;" it must also definitely exclude the possibility that some possibility *must* be actualized. To put it in other words, the full modern concept of ontological contingency only came into being on the shoulders of the speculative assertion of an absolute, transcendent, and necessary being from which it could be differentiated.[100] Contingency did not therefore symbolize release from an absolute, but the dialectical interplay between one absolute—necessity—and its antithesis.

At the same time, and almost imperceptibly, Blumenberg had also introduced a new political-juridical language in these comments. The glimpse of contingency he characterized as an "evaluation" or "judgment" [*Berurteiling*], while the decline of the cosmos appeared as the loss of a "higher justification and sanction." It would be all too easy to dismiss these as casual metaphors with no particular relevance to Blumenberg's core objectives. But the direction Blumenberg would take *Kontingenzsinn* over the following decade suggests otherwise. The juridical connotations of contingency hinted at in "Lifeworld and Technization" were tightly bound to the problem of the absolute that first made contingency an object of theory: for Blumenberg, this was the juridical framework of theodicy.

» 7 «
Maw and Order
Infinity, Theodicy, Creativity

The world-historical pathos of contingency was hardly exhausted by the nihilistic sense of a loss of existential world orientation. The political-juridical semantics of order implied by the concept of world-orientation, which Blumenberg explored in depth in a lecture delivered in 1960,[101] actually drew on the even more fundamental moral-theological question of the justification of existence in

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[99] In this figure of the immanent transcendence that constitutes modern theory, Blumenberg anticipated his later musings about the possibility of an "astronoetics," which, lacking the funding for telescopes, satellites, and spaceships, could imaginatively probe the outer reaches of the universe through speculation. Blumenberg, *The Genesis of the Copernican World*.

[100] D. Henrich, "Hegels Theorie über den Zufall," *Kant-Studien* 50 (January 1, 1958); Dieter Henrich, *Der ontologische Gottesbeweis; sein Problem und seine Geschchte in der Neuzeit* (Tübingen: Mohr, 1960).

[101] Hans Blumenberg, "Ordnungsschwund und Selbstbehauptung: Über Weltverstehen und Weltverhalten im Werden der technischen Epoche," in *Das Problem der Ordnung*, ed. Helmut Kuhn and Franz Wiedmann (Meisenheim an Glan: A. Hain, 1962).

the face of evil and suffering. In short, the concept of contingency was hammered out on the crucible of *theodicy*. Here the themes of anxiety, ambivalence, and guilt made another appearance. Theodicy, which literally means "God's justice," was a neologism coined by Leibniz in the early eighteenth century to designate the problem of justifying God despite the manifestations of evil and suffering in the world. If God is perfect, how could He have created an imperfect world? In the face of such questions, at least as old as Job, theodicies provided means to reconcile the idea of absolute perfection with the imperfections of the visible world and of humankind, and thereby to exonerate—or "unburden"—God of responsibility for evil. And it provided the existential motive force behind Leibniz's *Seinsgrundfrage*, why is there something rather than nothing?[102]

While some theorists, expanding on subtle hints in Max Weber's sociology of religion, have viewed theodicy as the original catalyst of religion as such,[103] Blumenberg assigned it exclusively to the Christian European tradition.[104] The justification of God or the world simply could not arise within the framework of ancient Greek metaphysics because its ideal of the natural cosmos simply precluded the idea that the world could cease to exist, have never existed, or be fundamentally "otherwise." The need to justify an absolute was simply not intelligible, or at least not persuasive. Only when the "ground" of the totality of beings (the "world") could be found not in other beings but in the "groundless being" of God's will could the existing world appear capable of being otherwise, that is, contingent. And only then could the question of its justification first arise.

The idea of the cosmos, Blumenberg averred, "determined that the question of the bad would receive a secondary, systematically peripheral position" in the ancient system. This meant that ancient "metaphysics is not even cosmodicy, justification of the world, because the world neither needs nor is capable of justification."[105] Blumenberg here seems to have been arguing that the impossibility for Greek metaphysics of speculatively imagining a standpoint beyond the world meant that the question of justification simply could not arise in the first place, because only something which could be otherwise or not exist at all—that is, something contingent—would be capable of justification. Evil thus could not appear as something by which to disqualify the world, but at most as an explainable yet endemic feature of that world. For Plato, the bad derived from the imperfection of matter [*hyle*], such that the sensible world, as constituted by the participation [*methexis*] of the ideal forms in matter, could only ever be imperfect. In other words, the bad represented not the negation of the good, but only its privation. Ancient metaphysics' lack of a justification for the bad in the world thus burdened Christian theology, for which the question of evil had become of paramount significance, with an acute difficulty. For how could a perfect being be held responsible for creating an imperfect and sinful world? And why would such an absolutely perfect being create such an imperfect world only to destroy it again in an act of redemption?

The Gnostics, as Hans Jonas had demonstrated, exploited this tension with the simple but obviously quite heretical claim that the God of creation and the God of redemption could not have been identical. The personal, fickle and vengeful creator God of the Old Testament, Gnostics like Marcion claimed, was but a demonic demiurge, and the world a cosmic prison for its human creatures. The savior God of the New Testament represented by contrast a radically transcendent "foreign God" indifferent to the world and its inhabitants. Salvation would thus manifest as an

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[102] Susan Neiman, *Evil in Modern Thought: An Alternative History of Philosophy*, Revised (Princeton: Princeton University Press, 2015).
[103] Peter L. Berger, *The Sacred Canopy: Elements of a Sociological Theory of Religion* (New York: Anchor Books, 1990); Scheler, *The Human Place in the Cosmos*.
[104] A point made far more emphatically by Odo Marquard: "Unburdenings: Theodicy Motives in Modern Philosophy."
[105] Blumenberg, *The Legitimacy of the Modern Age*, 127.

event of pure grace, because the true alien God bore absolutely no responsibility for humankind.[106] But as elegant a solution as the Gnostic heresy may have been, it came only at the cost of "the attachment of a negative evaluation to the Greek cosmic metaphysics and the destruction of the trust in the world that could have been sanctioned by the biblical conception of creation."[107] Such a price early Christianity was unwilling to pay.

The most significant theological innovations of early Christianity, for Blumenberg, appeared to Blumenberg as a kind of "reaction formation" to the Gnostic challenge. Hence Blumenberg credited Augustine with the first "overcoming" of Gnostic world alienation by way of his doctrine of free will and original sin, a solution the Bishop of Hippo had developed as a response to the Gnosticism with which he was intimately familiar, having been a Manichaean before his famous conversion. Against the Gnostics' heretical theology, Augustine reaffirmed the unity of the two Gods by disburdening God of the taint of terrestrial sin. Instead, the human freedom to sin could be held responsible for all the world's evils. But this accomplishment came only at the cost of saddling humanity with the unbearable burden of a guilt that, because of its absolute scope, could never be redeemed by human effort alone. The God of creation and the God of redemption could thus be held together—but not without substantial tensions. These would be brought to a pitch in the theology of late medieval nominalism, which, embodying the 'second coming' of Gnosticism, denigrated the world and the status of human reason to such an extent that it became "unbearable" to human life. Not only the status of the world, but—and here Blumenberg echoed Weber's argument in *The Protestant Ethic*—the salvation of the human soul became fundamentally inscrutable, dependent on what could only appear as the arbitrary will of a *deus absconditus*, a "hidden God."[108]

The crucial transformation that enabled nominalism to destroy the ancient cosmos derived from its decision to ascribe the attribute of infinity to God's omnipotent will. It pushed the contradiction that had become latent in the high Middle Ages between God's radical transcendence and His care for the world to a breaking point.[109] What appeared most decisive to Blumenberg by the late 1950's was no longer the early Christian discovery of the "nothing" as the correlate of God's omnipotent will, but the eleventh century "contact between infinity and omnipotence."[110] Only this merger, brought to completion by fourteenth-century nominalism, had finally drawn out the consequences of this contradiction and undermined the teleological residues of the ancient cosmos preserved in the syncretized doctrine of providence.[111] This was not a simply a change in ideas, but

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[106] "The god who brings redemption without in the least owing it to man, whom he did not create, the 'foreign god,' is seen as the essence of pure, because unreasoning, love. This divinity has the right to destroy a cosmos that he did not create and to preach disobedience of a Law that he did not lay down." Blumenberg, 129.

[107] Blumenberg, 130.

[108] This had become a major theme of interwar theology, proceeding from the "crisis theology" of Karl Barth and later, Rudolf Bultmann. Wertz, "The Genesis of Hans Blumenberg's Legitimacy of the Modern Age"; Lazier, *God Interrupted.*

[109] The nominalist doctrine of the infinite power of God's will to which Ockham gave expression had lent the modal category of possibility a new lease on life, which had been unavailable to Augustine. "Here Augustine is under the spell of the pedantry with which Neoplatonism rehearsed the correspondence of the physical and noetic world. The divine act of will that determines the creation can only refer to the fixed totality of the singular cosmos of Forms. Therefore only the 'that' of creation and not its 'what' becomes a fact. In Augustine, the concept of omnipotence is not yet joined to the concept of infinity. Thus he remains within the structure of the classical correspondence of Being and nature. There is no alternative to the given actuality of the creation - not even for the creator. After the act of creation, nothing of essential originality can be brought into being. How a finite world and the infinite potential of God's power, the real and the possible, could be related to one another was one of the hardest problems." Hans Blumenberg, "'Imitation of Nature': Toward a Prehistory of the Idea of the Creative Being," trans. Anna Wertz, *Qui Parle* 12, no. 1 (2000): 36.

[110] Blumenberg, 39.

[111] For a contrary reading of the significance of Christian providence to modern concepts of rationality, see "Providence and the Orders of the World," the first chapter of Jonathan Sheehan and Dror Wahrman, *Invisible Hands: Self-Organization and the Eighteenth Century* (Chicago: The University of Chicago Press, 2015).

of existential world comportment. According to Blumenberg, "the late Middle Ages' consciousness of contingency cut the ground from under this conception" of a providential cosmos. "The perplexity aroused by the question why the Creator had singled out this and no other tiny particle from the sea of infinite possibility, the idea of a choice without human intelligibility, made reality indifferent with respect to what surrounded it as the corona of possibility."[112] Although nominalism had "released" this penumbra of possibility, which would later have emancipatory implications, at first it signified only an abyssal terror.

The transformation in world orientation represented at the same time a shift in the modal "triscopics" of contingency. "The abandonment of the ancient cosmos," Blumenberg later wrote in *Legitimacy*, "was completed at the moment when the distinction between possibility and reality [*Wirklichkeit*, actuality] ceased to be congruent with the distinction between reason and will, that is, when the act of the divine will no longer related simply to the existence of the world but also related to the universe of truths that hold in it."[113] Instead of the difference between possibility and actuality stemming from the distinction between God's reason and God's will, as had been the case for Thomas Aquinas, for the nominalists' absolute voluntarism *both* possibility and actuality derived from the power of God's will. This shift became manifest in an important distinction the nominalists made between God's absolute and "ordained" power [*potentia absoluta* and *ordinata*]. In creating the world, God had *limited* his absolute power, because to have created all that was possible for God to create would simply have resulted in God's self-duplication.[114]

But if "reality" in the hands of the nominalists had become "indifferent" to its "corona of possibility," the opposite came to hold for moderns. In the 1957 essay "Imitation of Nature," Blumenberg argued that modern "creative being" first became possible because of the new ontological space opened up by the liberation of infinite possibilities of being otherwise. By rupturing the closed and self-sufficient cosmos, absolute voluntarism/world contingency produced "the initial spark" for the human being's recognition of "the possibility of *its own* originary creativity."[115] The idea of God's infinite power legitimated the idea of infinite possible worlds, since God's creation [*Schöpfung*] no longer exhausted [*ausgeschöpft*] the possibilities that *could* be actualized. The widening of the scope of the possible to infinity upended the traditional predominance of actuality over possibility in defining "reality," enabling reason to criticize and judge the "actual" world from the perspective of other possibilities and other possible worlds.[116] Such criticism had at first not a juridical, but above all an aesthetic and technical consequence for modern self-understanding: The ontological "latitude for artistic freedom," as Blumenberg put it, could only be won after "the discovery of the infinity of the possible beyond the finitude of the factual," and the

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[112] Blumenberg, *The Legitimacy of the Modern Age*, 532.

[113] Blumenberg, 198. Wallace's translation here of *Wirklichkeit* as reality is not wrong, but in this context it misses the specific difference to which Blumenberg was here attuned between being and actuality. For Blumenberg, possibility gained a quality of reality insofar as it no longer remained an eternal truth in God's mind, but had become a *fact* in the original sense of a *factum*, something produced (in this case by God's will.)

[114] The infinite possibilities corresponded to God's absolute power, while the world as created came to be seen as an expression of God's free self-limitation of his own power. In Nicolas of Cusa, this would transform into the mystical formula that creation was a result of God's self-contraction. Blumenberg, 43; For more on the significance of this distinction for the Scientific Revolution, see Amos Funkenstein, *Theology and the Scientific Imagination from the Middle Ages to the Seventeenth Century* (Princeton, N.J.: Princeton University Press, 1986).

[115] Blumenberg, "Imitation of Nature," 39.

[116] "Only when God's *potentia* is first understood as *potentia infinita*, does it become logically necessary to stop defining *potentia* (and the realm of Forms it implies) on the basis of the possible and to do the inverse—to define the possible on the basis of *potentia*. It is only then that the limits of possibility are defined as its logical limits, and the realm of Forms is rendered irrelevant for the question of what *omnia* means as the boundary of *omnipotentia*." Blumenberg, 38–39.

recognition that "the world in which we live… is one in which what is given is insufficient."[117] The human being thus acquired a new cosmic vocation. As Blumenberg later summarized in *Legitimacy*, "In the difference between reality and possibility, between infinite omnipotence and the factual world—taking offense at the scandal of the unfathomability of the world—man discovered that he could be something other than an imitator of nature."[118]

Although the nineteenth century had begun to operate under these conditions, the full import of the "possibilist" turn only found its express articulation in the twentieth. For Blumenberg it had been the Surrealists who recognized with particular acuity the implications of this cosmic contingency for the artistic imagination: "Perhaps it was André Breton who first gave Surrealism the ontological formulation that what is not is equally as real (*intense*) as what is - and this is the precise expression for possibility of the modern will to create overall, for the *terra incognita*, whose untrammeled state entices imaginations."[119]

» 8 «
Leibniz Modern
'Logodicy' Reoccupies Theodicy

Blumenberg contended that modernity represented the "second overcoming of Gnosticism," with Ockham's nominalism playing the role of Gnosticism's 'second coming.' In emphasizing God's transcendence, power, and inscrutability over divine wisdom and providence, nominalism had rendered the world radically and unbearably contingent. The world guaranteed no stable footholds, because to assert any cosmic reliability theoretically would amount to an illegitimate restriction on the infinite scope of God's power to change the world at will. Modernity thus arose as an attempt to cope with this experience of world contingency. Autonomous human reason, freedom and creativity, which intersected in the early form of constructivism that developed in German Idealism, were not only made possible by this new experience of the infinite openness or pliability of reality, but even more importantly, had become an existential imperative. If "Imitation of Nature" (1957) had stressed human creativity *liberated* by the validation of infinite unactualized possibilities as the basis of technical reason, his texts from 1958 through the late 1960's emphasized the modern encounter of cosmic infinity as an "embarrassment" and a scandal that *provoked* what Blumenberg would call "human self-assertion."[120] Infinity, as a central element of *Kontingenzsinn*, could appear as both a terrifying abyss and a space enabling limitless free-play [*Spielraum*] of self-realization, reoccupying the figure of "nothingness" as the paradigmatic basis of modern groundlessness.

For Blumenberg, following an argument of Karl Löwith's, the seventeenth-century Jansenist Blaise Pascal had been a paradigmatic witness to this "functional equivalence" of nothingness and infinity at the threshold of the modern world.[121] But if Pascal responded to this abyssal terror with

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[117] Blumenberg, 18.

[118] Blumenberg, *The Legitimacy of the Modern Age*, 532.

[119] Blumenberg, "Imitation of Nature," 18; On the terra incognita metaphor, see Hans Blumenberg, "Terra Incognita and 'Incomplete Universe' as Metaphors of the Modern Relationship to the World," in *Paradigms for a Metaphorology*, trans. Robert L. Savage (Ithaca, N.Y: Cornell University Press, 2010), 52–61.

[120] "Infinity is more a predicate of indefiniteness [*Unbestimmtheit*] than of fulfilling dignity, more an expression of disappointment than of presumption. If the attribute had migrated after getting free of theology, at any rate it could not have done so without changing its function and forfeiting its positive quality. As an expression of indefiniteness it serves the economy and critical self-limitation of reason more than its search for a metaphysical surrogate." Blumenberg, *The Legitimacy of the Modern Age*, 85.

[121] Karl Löwith, "Man between Infinites," in *Nature, History, and Existentialism, and Other Essays in the Philosophy of History*, ed. Arnold Boyd Levison, Northwestern University Studies in Phenomenology & Existential Philosophy (Evanston, IL:

the imperative of a "leap of faith," Leibniz's philosophy amounted to an attempt to manage this newly discovered infinity by incorporating it into his rationalist metaphysics. The effort to reconcile infinity and individuality in the doctrine of monads, and rationality and contingency in the idea of freedom made Leibniz into a paradigmatic modern thinker. In the *Monadology* Leibniz had overcome the Cartesian mind-body dualism in part by dispensing entirely with the idea of extended substances. Instead of opting for a substance monism in its place, as Spinoza had done, Leibniz proposed to view the universe as composed of an infinite number of irreducibly individual, extensionless yet active "monads." Although not causally interactive with one another, each monad develops according to its own internal force or "striving," and at the same time "perceives" the entire universe from its own respective point of view. Such striving and perceiving, in fact, belong to the same act of "apperception." Because the universe exists as a "preestablished harmony," each monad's active striving is at the same time coordinated with the totality through its unique perspective.[122]

The radical metaphysical individualism of the monadology developed as a consequence of Leibniz's famous "Principle of Sufficient Reason." Its most concise formulations read, "there is nothing without reason," or "everything has a reason." It therefore also expressed an answer to what Heidegger called the *Seinsgrundfrage*: "why is there something rather than nothing?" But in this formulation Heidegger detected what he saw as the voluntaristic essence of Leibniz's metaphysics. Although frequently disputed,[123] many commentators, including Heidegger, have long traced the roots of a proto-vitalist interpretation of reality as striving, willing self, found from classical Idealism through Schopenhauer and Nietzsche, back to Leibniz.[124] Underlying Leibniz's presumption in favor of "something *rather* than nothing," Heidegger claimed, there lay an unacknowledged moment of decision; not only a selective choice of one possibility over another, but also the decision for existence *rather* than nothing.[125] Even more, in the *vis viva*, the "living force" of each monad's apperceiving "striving," Heidegger also detected a latent metaphysics of the will, which he saw as paving the way for Nietzsche's will to power and modern technology.

Despite these important voluntaristic elements, Leibniz's project was, without a doubt, motivated to its core by a deep-seated aversion to the irrational arbitrariness of theological voluntarism and the "intolerable" variety of contingency it inflicted upon the human being. For

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Northwestern University Press, 1966); Jonas also cited this in his epilogue on the relationship of modern existentialism and nihilism, and Gnosticism. *The Gnostic Religion*.

[122] Gottfried Wilhelm Leibniz and Nicholas Rescher, *G.W. Leibniz's Monadology: An Edition for Students* (Pittsburgh, Pa: University of Pittsburgh Press, 1991); Benson Mates, *The Philosophy of Leibniz: Metaphysics and Language* (New York: Oxford University Press, 1986); Nicholas Jolley, *Leibniz*, Routledge Philosophers (London ; New York: Routledge, 2005); Daniel Garber, *Leibniz: Body, Substance, Monad*, Reprint edition (Oxford: Oxford University Press, 2011).

[123] For example, Patrick Riley, *Leibniz' Universal Jurisprudence: Justice as the Charity of the Wise* (Cambridge, MA: Harvard UP, 1996).

[124] Heidegger, *The Metaphysical Foundations of Logic*; Martin Heidegger, "Metaphysics as History of Being," in *The End of Philosophy*, trans. Joan Stambaugh (Chicago: University of Chicago Press, 2003); Martin Heidegger, *Nietzsche: Volumes Three and Four* (HarperCollins, 1991); Martin Heidegger, *The Principle of Reason* (Bloomington: Indiana University Press, 1996); Jerrold E. Seigel, *The Idea of the Self: Thought and Experience in Western Europe since the Seventeenth Century* (New York: Cambridge University Press, 2005); André Robinet, "Leibniz Und Heidegger: Atomzeitalter Oder Informatikzeitalter?," *Studia Leibnitiana* 8, no. 2 (1976): 241–56; Hans Ruin, "Leibniz and Heidegger on Sufficient Reason," *Studia Leibnitiana* 30, no. 1 (1998): 49–67; Graham Harman, "Plastic Surgery for the Monadology: Leibniz via Heidegger," *Cultural Studies Review* 17, no. 1 (March 8, 2011): 211–29; Renato Cristin, *Heidegger and Leibniz: Reason and the Path with a Foreword by Hans Georg Gadamer* (Springer Science & Business Media, 2013); Paul Lodge, "Heidegger on the Being of Monads: Lessons in Leibniz and in the Practice of Reading the History of Philosophy," *British Journal for the History of Philosophy* 23, no. 6 (November 2, 2015): 1169–91.

[125] Heidegger, *The Metaphysical Foundations of Logic*, 114.

Leibniz, as for German Idealism after him, the crucial task was to combine voluntarism and rationality seamlessly in an account of freedom that dispensed with every trace of arbitrariness.

Nowhere was this hostile relationship to the irrational aspects of voluntarism more pronounced than in the counterintuitive affinity Leibniz detected linking the absolute theological voluntarism of the late Middle Ages and the early modern recovery of the ancient atomistic materialism of Democritus, Epicurus and Lucretius.[126] In the famous dispute in 1715-16 over the nature of space and time with Newton's avatar, Samuel Clarke, Leibniz objected to what he perceived as the irrationality of their doctrine of absolute space and time, because it removed every basis for guaranteeing the rational order of the universe.[127] In rendering every point in space in time indifferent to and indistinguishable from the rest, absolute space entailed a universal arbitrariness: no reason could be adduced to distinguish one place from another, violating the principle of sufficient reason. Precisely this ungrounded (vertical) arbitrariness, Leibniz observed, had characterized both the radical voluntarism of nominalism and the uncaused *clinamen* or "swerve" of atoms in the void in Lucretian materialism. The affinity between voluntarism and atomism then became a central plank in Blumenberg's narrative of the origins of modern scientific reason in "Disappearance of Order" and again in *Legitimacy*. Taking Leibniz's observation as a guiding clue, Blumenberg noted how both voluntarism and atomism denied the presence of a "reason" for creation, rejected a natural or providential teleological anthropocentrism, and appealed to the idea of a plurality of worlds.[128]

Leibniz's *Theodicy* was the first comprehensive attempt to justify the totality of an existence exposed to the destabilizing element of infinity using only the resources of modern rationality. In fact, it had been the first to explicitly pose the problem of existence as a problem of ontological justification: why is there something *rather* than nothing? Why is this world chosen *rather* than another?[129] In "reoccupying" the theodicy problem of the Middle Ages, Leibniz's theodicy presented a novel kind of solution, for which the designation "theodicy" is somewhat of a misnomer. Less a theodicy, Leibniz's metaphysics represented a spectacular attempt at a *logodicy*. What was most decisive about Leibniz's theodicy was not that it justified God, or even the world, but that it justified *reason* by means of reason, and in such a way that it absorbed rather than eliminated the world's contingency: "The *Theodicy* is anything but a theological work," Blumenberg maintained; "it could not even be the secularization of such a work, for one unmistakable reason: The vindication of God is, for Leibniz, the means of securing the most radical principle of the autonomy of philosophy that could be conceived of, the principle of sufficient reason. There is only one possible application of this rational principle: Given the assumption that the best of all possible worlds has been realized, one can in principle deduce the answer to any conceivable question." [130]

Following the nominalists, Leibniz concurred that the world is contingent because God

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[126] For a contemporary take on this affinity, see Riskin, *The Restless Clock*.

[127] G. W. Leibniz and Samuel Clarke, *Leibniz and Clarke: Correspondence*, ed. Roger Ariew, UK ed. edition (Indianapolis: Hackett Publishing Company, Inc., 2000).

[128] And thus explaining over forty years in advance why Greenblatt's one-dimensional celebration of the recovery of ancient atomism as the foundation of modern science is lacking something vital. Stephen Greenblatt, *The Swerve: How the World Became Modern*, Reprint edition (New York; London: W. W. Norton & Company, 2012). Important differences also between voluntarism and atomism remained, which I will not go into here, but which were essential for explaining why modern materialism had a radically different function in the seventeenth century than in antiquity. See Part Two, Chapter Three of *Legitimacy of the Modern Age*.

[129] Gottfried Wilhelm Leibniz, *Theodicy: Essays on the Goodness of God, the Freedom of Man, and the Origin of Evil*, ed. Austin Marsden Farrer (Charleston, S.C.: BiblioBazaar, 2007); Larry M. Jorgensen and Samuel Newlands, eds., *New Essays on Leibniz's Theodicy*, First edition (Oxford: Oxford University Press, 2014).

[130] Blumenberg, *The Legitimacy of the Modern Age*, 55.

selected this world out of the infinite possible worlds He could have created.[131] Yet for Leibniz this selection was neither inscrutable nor arbitrary, but in fact, perfectly rational: God chose this world because it is the "best of all possible worlds." What distinguished Leibniz's argument for the cosmic optimum in the *Theodicy* from prior theological arguments was not only that he explicitly raised the need to justify God, which had been previously latent, but the criterion of optimality he deployed: this world, Leibniz assured his readers, is the best world because it combines the greatest variety with the highest degree of order. Not every possible substance or "monad" would be compatible—"compossible" in Leibniz's terms—with every other. The best world, in short, was comprised of the greatest number of compossibles. Or to put it differently, Leibniz made complexity the measure of perfection. But this decision also decisively altered the meaning of perfection, perhaps beyond recovery. Some amount of suffering or evil would be the inevitable byproduct of such an overarching cosmic optimum: "Leibniz's theodicy," Blumenberg contended, "characterizes the bad things in the world no longer in moral terms but rather in instrumental ones."[132] Selectively organized complexity, as a definition of rationality, justified the presence of evil as a necessary feature of even the best world. This would become a central feature of Luhmann's reconstructed account of modern reason as "systems rationality," and one which will help to explain its special rhetorical pathos.

» 9 «
Striving for Reason without a Reason for Striving
Self-Assertion, Self-Preservation, Self-Creation, Self-Restriction

Blumenberg characterized this new self-legitimating form of reason in several interrelated ways: as "technical reason," "creative being," "theoretical curiosity," "self-assertion," "self-preservation," and "self-contraction." The emphasis on selfhood evident in this list certainly speaks to the influence of German Idealism on Blumenberg's conception of modern philosophy. Idealism had privileged a notion of selfhood as autonomy in the literal sense of giving oneself the law according to which one acts (auto + nomos). Following Leibniz's conception of the rational self-selection of the universe, mirrored in its radically individual monads, post-Kantian idealism strove to maintain the unity of reason and voluntarism in the form of the rational freedom of the transcendental subject.[133]

Blumenberg's concept of "self-assertion" referred specifically to the late Nietzsche's attempt to radicalize the concept of human autonomy beyond its Enlightenment framing in the doctrine of

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[131] Gottfried Wilhelm Leibniz, "On Contingency (1686)," in *Philosophical Essays*, trans. Roger Ariew and Daniel Garber (Indianapolis: Hackett Pub. Co, 1989); Heinrich Schepers, "Zum Problem der Kontingenz bei Leibniz: Die beste der möglichen Welten," in *Collegium Philosophicum ; Studien Joachim Ritter zum 60. Geburtstag*, ed. Ernst-Wolfgang Böckenförde (Schwabe & Co Verlag, 1965); Ingetrud Pape, *Tradition und Transformation der Modalität* (Hamburg: Meiner, 1966); Ingetrud Pape, "'Von den möglichen Welten' zur 'Welt des Möglichen': Leibniz in modernen Verständnis," *Studia Leibnitiana Supplementa I*, 1968, 266–87; E.M. Curley, "The Root of Contingency," in *Leibniz: A Collection of Critical Essays*, ed. Harry G. Frankfurt, 1st ed., Modern Studies in Philosophy (Garden City, N.Y: Anchor Books, 1972); Robert Merrihew Adams, "Leibniz's Theories of Contingency," in *Leibniz: Determinist, Theist, Idealist* (Oxford University Press, 1999).

[132] Blumenberg, *The Legitimacy of the Modern Age*, 55.

[133] The Idealists' locating of the identity of reason and will in the transcendental subject was ultimately a more acceptable version of the solution taken by Giordano Bruno (and later, Spinoza): "The infinite plurality of worlds is the horizon of uncertainty for the existing world and for each of its moments, if one cannot deduce from the contingency of the first act of foundation a world course that is minimally consistent in itself and constant by itself: It is evident that there could only have been one secure guarantee for this postulate of the constancy of the world's lawfulness, namely, the coincidence of possibility and reality, the exhaustion of reason by the will, and thus the identity of reason and the will in the world ground. This path will be taken by Giordano Bruno. The nominalists reject it, and the 'effectiveness' of their voluntarism rests on this rejection." Blumenberg, 198.

the "will to power." This Nietzsche opposed to the Darwinian concept of self-preservation, which he rejected for the same reason he reproached the modern sanctification of technological self-assertion: both smacked of an unredeemed naturalism he deemed unworthy of the ideal of self-overcoming that defined the will to power.[134] Even Descartes' demand for an absolute beginning paled before this idea of purely immanent self-overcoming, insofar as the idea of overcoming nature still implied a relationship of dependence. Only a radical indifference towards nature would befit the dignity of the will to power. Self-assertion did not *need* a nature to overcome.[135] But even this, Blumenberg remarked, merely inverted the logic of modernity's scandalous discovery of nature's indifference to humanity, which had originally provoked the autocatalysis of modern self-assertion.[136] "Gnosticism had made acute the problem of the quality of the world for man and, through the contradiction that the patristic literature and the Middle Ages opposed to it, made *cosmodicy* conditional on *theodicy*. The modern age attempted to strike out this condition by basing its *anthropodicy* on the world's lack of consideration of man, on its inhuman order."[137]

If Nietzsche had helped bring to light the stakes of modern human self-assertion, Blumenberg by no means felt his ultimately negative evaluation of it to be binding. Instead, Blumenberg perceived self-preservation to be one of the paradigmatic forms of modern reason in the 1969 lecture "Self-Preservation and Inertia: On the Constitution of Modern Rationality."[138] In this text, the ideal of self-preservation represented an achievement wrested from those remnants of providential thinking that managed to survive the destructive reckoning of absolute voluntarism. Blumenberg aimed to give an account of the rise of self-preservation as the fundamental principle of modern rationality by explaining how it arose out of the collapse of the theological doctrine of "*conservatio*." Combining the Greek metaphysics of motion with the theological notion of creation, this doctrine held that created beings could not be understood to contain the principle of their own self-preservation, but rather were causally dependent on God for their continued existence. Conservation, in other words, had only a "transitive" and causal meaning insofar as it referred to the conservation of something by something else. In the seventeenth-century occasionalist doctrine of *creatio continua* ("continuous creation"), latent in Descartes and carried out by his acolyte Malebranche, Blumenberg saw a providential motive attached to the most radical consciousness of contingency. The doctrine of *creatio continua* held that the world only persisted from one moment to the next because of God's continuous and *voluntary* intervention. The created world did not persist *automatically*, but depended on God at every moment.

The breakthrough to modern self-preservation only appeared when *conservatio* received a *reflexive* in place of a *transitive* interpretation. Then even inanimate things could be held to conserve

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134 "There is no talk of technique in [Nietzsche's] writings. Technique retains the posture of self-assertion, with its dependence on theoretical truth about nature. It derives from a teleology that compensates obedience to the laws of nature with mastery over nature." Blumenberg, 142; This claim too, is not uncontroversial among Nietzsche interpreters, some of whom have stressed what they see as his naturalism. Peter R. Sedgwick, *Nietzsche's Justice: Naturalism in Search of an Ethics* (McGill-Queen's University Press, 2013); Blumenberg also discussed Darwin in connection with modern eugenics in "Ordnungsschwund."

135 Blumenberg, *The Legitimacy of the Modern Age*, 142.

136 "Self-preservation for [Nietzsche] can only be understood as a reaction to a reality that necessitates it; it presupposes that the quality of this reality is an endangering one. But the model of a relation to reality that Nietzsche wants is not supposed to depend upon a quality of reality. 'There is neither order nor disorder in nature,' he wrote as early as 1868 in an essay on the problem of teleology since Kant. The replacement of self-preservation by the 'will to power' is only the reversal of the thought that reality is indifferent with regard to its individual members-the result is the doctrine that life must be indifferent with regard to reality." Blumenberg, 143.

137 Blumenberg, 142.

138 Hans Blumenberg, "Selbsterhaltung Und Beharrung: Zur Konstitution Der Neuzeitlichen Rationalität," in *Subjektivität Und Selbsterhaltung: Beitrage Zur Diagnose Der Moderne*, ed. Hans Ebeling, Theorie-Diskussion (Frankfurt: Suhrkamp, 1976).

themselves without requiring the support of an external agency. But as long as conservation required the application of a cause, the reflexive variant of conservation, self-preservation, could only be a predicate of God, because in Christian metaphysics only God could be considered self-causing, a *causa sui*. Newton's formulation of the law of inertia had to be wrested from this prejudice that motion required the continuous application of causal force, without which it would cease. Hence, once self-preservation no longer depended on causality, it could gain scientific legitimacy without violating the restriction of *causa sui* as an attribute of God. The discovery of inertia thereby helped repurpose the medieval "universe as clockwork" metaphor for use among eighteenth-century Deists.

Not everyone found such a passive, mechanical account of the world satisfying. Seventeenth-century natural philosophers still felt that a principle of immanent dynamism, a kind of non-teleological "striving" irreducible to passive mechanism or divine intervention, had to be imputed even to bare matter in order to account for phenomena such as life.[139] With his metaphysics of monads animated by an irreducible *vis viva*, Leibniz rated among the most sophisticated of these "vital materialists."[140] But only Spinoza took the radical move of making the world causally dependent on itself for its own existence, a purely immanent *causa sui* in which the actual world exhausts all possibility, de facto eliminating contingency (or at least the variant described here) from the world. Leibniz, by contrast, preserved the horizontal realm of excess, non-actualized possibilities beyond the world at hand, in part by making the self-preservation of monads independent of the idea of self-causation. Monads do not create themselves *ex nihilo*. But Leibniz still left the creation of factual existence dependent on God's will, assigning each individual existent only the principle of its own striving for continued existence.

Causality thus came to assume a secondary role in Leibniz's system, with important consequences for modern notions of "self-organization" and for the twentieth century philosophy of science. In 1911 Ernst Cassirer would self-consciously appeal to Leibniz in his interpretation of the priority of abstract "functions" over metaphysical "substances,"[141] a move which influenced Blumenberg's critique of substantialism and would directly inspire Luhmann's reformulation of functional method in the 1960's.[142] Divested of its substantialist-causal meaning, *creatio continua* also came to serve Luhmann in the 1990's as a metaphor and anticipation of the link between contingency and what Luhmann came to call the autopoeisis of systems: essentially an updated, acausal conception of "self-creation."[143]

Blumenberg and Luhmann also both appealed to another theological variant of creation that, divested of its causal-substantialist form, anticipated a paradigm of modern rationality. This was the figure of "self-restriction" or "self-contraction." Leibniz's interpretation of rationality as a selective relationship between an actuality and its horizon of infinite possibilities condensed a cosmological motif that had already featured centrally in the speculative mysticism of fourteenth-century theologian Nicolas of Cusa[144]. Blumenberg dedicated a lengthy exegesis in the penultimate chapter of *Legitimacy* to "the Cusan," who functioned for him as a limit figure pushing medieval thought to

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139 On the deep-seated tension between "passive" theological and "active" vitalist materialisms, see Riskin, *The Restless Clock*; Peter Hanns Reill, *Vitalizing Nature in the Enlightenment* (Berkeley: University of California Press, 2005).

140 For more on Leibniz's materialism and its relationship to his later monadology, see Garber, *Leibniz.*

141 Gregory B. Moynahan, *Ernst Cassirer and the Critical Science of Germany, 1899-1919* (London: Anthem Press, 2013).

142 See Chapter Four.

143 Niklas Luhmann, "Contingency as Modern Society's Defining Attribute," in *Observations on Modernity*, trans. William Whobrey (Stanford, CA: Stanford University Press, 1998), 51; He first raised the issue in 1977 in *Funktion der Religion* (Frankfurt am Main: Suhrkamp, 1988), 216; Niklas Luhmann, *A Systems Theory of Religion*, ed. Andre Kieserling, trans. David Brenner and Adrian Hermann (Stanford, California: Stanford University Press, 2013), 115. **Find better citation**

144 For more on Blumenberg's relationship to Cusa, see Elizabeth Brient, *The Immanence of the Infinite: Hans Blumenberg and the Threshold to Modernity* (CUA Press, 2002); Michael Edward Moore, *Nicholas of Cusa and the Kairos of Modernity: Cassirer, Gadamer, Blumenberg* (punctum books, 2013).

its furthest extremes without quite achieving the "breakthrough" to the modern age.[145] Blumenberg's account centered on the Cusan's speculative cosmogony, which represented an ultimately unsuccessful attempt to reconcile a proto-modern interest in the transcendence of the human creature with the nominalists' defense of absolute theism.

Cusa reframed the nominalist distinction between God's absolute and ordinate power in the creation of the world in terms of what he called the "self-restriction" of God. Not yet the pantheistic cosmogony of God's self-exhaustion in the form of an infinite universe that Giordano Bruno would first champion a century and a half later, "self-restriction" represented an attempt to make the world humanly livable in the face of the abyssal infinity opened up by divine omnipotence, while still preserving God's transcendence and omnipotence.[146] Restriction for Cusa had meant the idea that the actual is always at the same time a restriction against every other possibility of its existence. The world as the "restricted maximum" in distinction to God as the "absolute maximum" signified the limitation of everything it would have been possible for God to create to the actuality of what was ultimately created.[147]

It is no accident that biologist Ludwig Bertalanffy would claim Nicholas of Cusa as the original inspiration behind the General Systems Theory he founded in the 1930's.[148] In this image of the world, mirroring God as a self-restricting totality, Bertalanffy discovered important prefigurations of Leibniz and the systems theoretical insight that reality fundamentally consists of *organization*: Cusa had also described cosmic creation as the "unfolding" [*explicatio*] of the condensed bundle [*complicatio*] of infinite possibilities inhabiting God's will. The perspectival epistemology Bertalanffy developed in conjunction with his systems theory also drew on the epistemological components of Cusa's negative theology. Cusa recognized that the nature of absolutes, exemplified in God's infinite power, posed insurmountable challenges to human reason, not simply on account of its excessive quantity or the distance of transcendence, but in the form of logical paradoxes. Absolutes encompassed logical contradictions, which Cusa called the *coincidentia oppositorum*, the coincidence of opposites. For example, one could experience movement towards an impossible knowledge of God's transcendence in the form of a mathematical exercise: imagine a circle infinitely expanded and recognize how the curvature of its circumference will approach the straight line of its radius. Then imagine the radius as infinitely small and the two will approach the identity of a single point. "The perceptible figure stands between the two infinities; it has, as it were, both an outward and an inward transcendence."[149]

This had important implications for human knowledge. In fact, Cusa's cosmogonic motif of God's self-restriction developed out of his earlier reflections on the epistemological implications of negative theology. This took form in Cusa's attempt to characterize the activity of human reason confronted by absolute transcendence, a program he famously called the *docta ignorantia* ("learned ignorance"). In light of God's absolute infinity, human reason would find its best prospects for knowing God if it renounced its claims to absolute, direct access to divine truth and instead pursued

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[145] Part IV, Chapter Two "The Cusan: The World as God's Self-Restriction," *The Legitimacy of the Modern Age*, 483–547.
[146] "The Cusan's intellectual accomplishment can be developed entirely from the urgency of this starting point: the maintenance, indeed intensification, of the element of divine transcendence, but at the same time the advancement both of man and the cosmos toward the qualities of this transcendence." Blumenberg, 484–85.
[147] "'Restriction' is thus the general and thoroughgoing characteristic of the actual world and of what is actual within it. What is actual is this or that, which is to say that as this and not that, it is actual at the expense of possibilities no longer open. Nothing actual is what it can be. That makes movement the continual conversion of possibility into actuality, a conversion characteristic of all reality in the world." Blumenberg, 544.
[148] Ludwig Von Bertalanffy, "The History and Status of General Systems Theory," *The Academy of Management Journal* 15, no. 4 (1972): 407–26; Ludwig von Bertalanffy, *General System Theory: Foundations, Development, Applications* (New York: G. Braziller, 1973), 248; Bertalanffy had even written a book about Cusa: *Nikolaus von Kues* (München: G. Müller, 1928).
[149] Blumenberg, *The Legitimacy of the Modern Age*, 491.

knowledge of the divine under a proviso of professed ignorance combined with supra-rational speculation. "Learned ignorance" was thus amenable to translation into "conjecture," which could then appear "functionally equivalent" to "faith" with respect to the human cognitive relationship to transcendence.[150] In the imaginative mathematical exercise of approaching infinity, the finite human could nevertheless construct approximations of the cognitively unattainable absolutes, and thus gain positive knowledge of the divine by reconstructing images of the divine in the world.

In the process, Cusa thus offered what both Cassirer and Bertalanffy would consider in the 1920's an early example of epistemological constructivism.[151] As a paradigm of the progressive self-restriction of the human pretension to knowledge, the *docta ignorantia* prefigured for Blumenberg the modern idea of "method" that arose in the seventeenth century: this combination of speculative expansion and knowing self-restriction would, when turned to an infinite world, become a pillar of modern scientific progress: "It is a constitutive element of the modern age that it expands through restriction, achieves progressions through critical reduction."[152]

» 10 «
History between Autonomy and Automaticity
Method, Technization and the Limits of Progress

In his 1958 interpretation of the historical process of "technization," Blumenberg returned to his early emphasis on the essentially "automatic" character of modern technology. But by that time, the concept of automaticity relinquished its prior connections to the demonic and the figure of second nature. If in 1957 Blumenberg described modern art and technology as having been liberated from the "imitation of nature," by "Lifeworld and Technization" in 1958 he took the next step of freeing his narrative account of technological rationality from any remaining trace of an intrinsic relationship to nature. Temporalized as technization, technology became instead a category of history.

In a claim starkly reminiscent of Weber's famous argument about the role of Protestant asceticism in the development of the rationality undergirding modern capitalism, Blumenberg contended that modern science only became a "machine" driving progress "automatically" insofar as it grounded itself upon the disciplinary restrictions imposed by formalized method.[153] Such an argument, in fact, dated back to the seventeenth century. Just as Leibniz had critiqued Descartes for his belief that every scientific axiom must be definitively proven before any further progress could

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[150] Blumenberg, 500–501.

[151] David Pouvreau and Manfred Drack, "On the History of Ludwig von Bertalanffy's 'General Systemology', and on Its Relationship to Cybernetics," *International Journal of General Systems* 36, no. 3 (June 1, 2007): 281–337; Ernst Cassirer, *The Individual and the Cosmos in Renaissance Philosophy* (Mineola, N.Y: Dover Publications, 2000).

[152] Blumenberg even hinted here at the link between this renunciation and Cassirer's post-substantialist functionalism. "Renunciation of the principle of teleology," Blumenberg continued, "discloses for the first time the full efficacy of the application of the causal category to nature; the elimination of the question of substance, and its replacement by the universal application of quantity, makes mathematical natural science possible; and renunciation of the phantom of the requirement of absolute accuracy makes possible an exactitude that can set itself tolerances for its inaccuracy." Blumenberg, *The Legitimacy of the Modern Age*, 500. The legitimation of "imprecision" with respect to infinity originated in Nicolas of Cusa's theological speculations in the fifteenth century. For him they originated in a negative theology of God's transcendence, which for the first time in Cusa, however, began to contaminate the world as well—opening the path to Giordano Bruno's equation of God with an infinite universe.

[153] Max Weber, *The Protestant Ethic and the Spirit of Capitalism* (Courier Corporation, 2012); One could also think of the emphasis on forgetting in the second of Nietzsche's "Untimely Meditations," "On the Advanges and Disadvantages of History for Life." Friedrich Nietzsche, *Nietzsche: Untimely Meditations*, ed. Daniel Breazeale, trans. R. J. Hollingdale, 2 edition (Cambridge ; New York: Cambridge University Press, 1997).

be made,[154] Blumenberg chided Husserl for assuming that it would be possible for the individual scientist to intuitively grasp and reconstruct the entire history of scientific achievement before contributing something new.[155] (Luhmann, in his first major book, *Function and Consequences of Formal Organization*, would specify the functional achievement of "formality" in almost exactly the same terms.)[156] In the congealed form of the already "completed" technical object, technical method became a presupposition of all progress because it created a new layer of "self-evidence," a firm ground upon which theoretical inquiry could take its next step and communicate it to future generations.[157] In a world in which infinity stretches in every direction, no progress can be made without the consolidation of prior achievements as provisional grounds, as something taken-for-granted. Hence the "breakout" of technization did not first take place with the construction of the world of machines of the industrial revolution, with which twentieth century had come to identify the concept of technology. Rather, this nineteenth-century machine world depended on the prior self-restriction of meaning embodied in the concept of technique as method, first formulated in the seventeenth century. This, Blumenberg suggested, explained why the mechanical calculator "belonged to the earliest dreams and realization attempts of the modern machine world," and why it was "no less accidental, that the development of computing machines [*Rechenautomaten*] led to a level of perfection at which their capability can no longer be caught up to by the human brain."[158]

Although he was not entirely clear here, Blumenberg seemed to be saying that the essential character of the machine as method lay in the concept of what we would today call an *algorithm*, a formalized and simplified formula that allowed a series of complicated steps to be performed unconsciously or "automatically."[159] Cybernetic automata and digital computers represented the apotheosis of this original dream.[160] As concretized and formalized method, machines function to disburden and enable, alleviating consciousness from the rigorous yet impossible demand for absolute truth that could only inhibit progress.[161] Should we follow Blumenberg's narrative, the cybernetic and systems theoretical traditions on which Luhmann drew thus had a precursor in this tight connection between the techno-logics of self-organization, automaticity and selective

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[154] G. W. Leibniz, "Critical Thoughts on the General Part of the Principles of Descartes, 1692," in *Philosophical Papers and Letters: A Selection*, ed. and trans. Leroy E. Loemker (Springer Science & Business Media, 2012).

[155] Even though Husserl had himself recognized this in his description of the way in which consciousness can only ever perceive objects "selectively," noticing only certain aspects at any given moment, while others aspects become peripheral adumbrations receding toward the horizon. Blumenberg, "Lebenswelt und Technisierung unter Aspekten der Phänomenologie," 43.

[156] Niklas Luhmann, *Funktionen und Folgen formaler Organisation* (Berlin: Duncker & Humblot, 1964). I return to this in Chapter Five.

[157] "*formalization* is nothing other than the most handy, serviceable type of such *functionalization* of the one-time achieved; but it is precisely also already potentially technicization, because what can be formalized—that means, what gains its applicability independent of the insightfulness of the performance—that is also essentially already mechanized, even if the real mechanisms did not stand by ready for their storage and regulated association. Every method wants to provide *unreflected repeatability*. " Blumenberg, "Lebenswelt und Technisierung unter Aspekten der Phänomenologie," 41–42.

[158] Blumenberg, 32; On the prehistory of calculation, see Jones, *Reckoning with Matter*.

[159] Breton's "psychic automatism" comes to mind in this context. André Breton, *The Automatic Message* ([S.l: s.n, 1933). This essay was originally published, suggestively, in the Surrealist journal *Minotaure*.

[160] Matthew Jones disputes the idea, found, for example, in Martin Davis, that one can draw a straight line from Leibniz to Turing, because such narratives downplay the essential role played by the organization of artisanal craft labor necessary to make calculating machines work in real life. It's not clear, however, that this argument would disqualify Blumenberg's claim, which sees in the seventeenth century not the beginning of an historical teleology, but merely an historical possibility. Furthermore, Jones' argument also aims at the idea that "logic" was supposed to be the central achievement, whereas Blumenberg's claim about method is rather different. Jones, *Reckoning with Matter*; Martin Davis, *The Universal Computer: The Road from Leibniz to Turing* (New York: Norton, 2000).

[161] Hans Blumenberg, *Rigorismus der Wahrheit: "Moses der Ägypter" und weitere Texte zu Freud und Arendt*, ed. Ahlrich Meyer (Berlin: Suhrkamp Verlag, 2015); Blumenberg, *Rigorism of Truth*; Jay, "Against Rigor."

"reduction." The creation of the world, the behavior of living organisms and automatic machines, and the "automatic" character of scientific progress not only bore a strong analogical resemblance to one another. Each was rooted in that specifically modern conception of rationality as "self-restriction," born of the pressures of coping with an infinite and contingent world.

The idea of technization as a process that had become more or less "automatic," which Blumenberg already described in his 1958 "Lifeworld and Technization," clearly enunciated an early version of the modern selective rationality whose historical genesis would be narrated in *Legitimacy of the Modern Age*. Leibniz's theodicy was significant not for its optimism, but for its account of complexity, contingency, and selectivity as the ground for a new, normative and critical rationality: "What Leibniz' 'best of all possible worlds' allows to persist ontologically," Blumenberg wrote in 1957, "is not the 'best world' but rather the infinity of possible worlds, a notion that becomes intellectually attractive precisely as the real world no longer plausibly represents the world chosen as best."[162] Hence, even after the discrediting of Leibniz's theodicy in the wake of the 1754 Lisbon earthquake, the existential concerns that provoked it persisted with remarkable tenacity. Only they now fed into the persuasive yet still problematic ideas of "possible" and "infinite progress."

With historical time entering the dimension of the infinite, even in the form of a better possible world always held in the future, the existential concerns that drove theodicy hardly disappeared. Modern Europeans' ambivalence towards Pascal's "two infinities" paralleled that of the contingency to which it was closely related. The "infinite task" of the progress of scientific knowledge came into conflict with the worldly fulfillment that theoretical knowledge in the form of technoscience seemed to promise, thereby reactivating the tension between infinity and totality inherent in the concept of the world. Just as the infinity of space reduced the significance of the human individual to an infinitesimal point, the infinity of time intensified the experience of the contingency of being born at one time rather than another.[163] The infinite progress promoted by the Enlightenment left unanswered the question of what could justify the suffering of all those in history who were born too early to enjoy the fruits of that progress.[164] Although not a "secularization" of eschatology, progress was beset by many of the same problems that had characterized the intolerability of Christian *Heilsgeschichte*.[165] Namely, how could one rationally justify the historical "detour" represented by progress?[166]

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[162] Blumenberg, "Imitation of Nature," 44; This claim is particularly essential to my argument, although Patrick Riley, for instance, has claimed that getting rid of this conception of justice completely undermines the uniqueness of Leibniz' position. *Leibniz' Universal Jurisprudence.*

[163] A concern Weber famously gave voice to in his famous vocation lectures. Max Weber, "Science as a Vocation," in *From Max Weber: Essays in Sociology*, ed. Hans Heinrich Gerth and C. Wright Mills (New York: Oxford University Press, Galaxy, 1958); Joseph Leo Koerner, "Ideas about the Thing, Not the Thing Itself: Hans Blumenberg's Style," *History of the Human Sciences* 6, no. 4 (November 1, 1993): 1.

[164] "The danger of this hyperbolizing of the idea of progress is the necessary disappointment of each individual in the context of history, doing work in his particular situation for a future whose enjoyment he cannot inherit. Nevertheless the idea of infinite progress also has a safeguarding function for the actual individual and for each actual generation in history. If there were an immanent final goal of history, then those who believe they know it and claim to promote its attainment would be legitimized in using all the others who do not know it and cannot promote it as mere means. Infinite progress does make each present relative to its future, but at the same time it renders every absolute claim untenable. This idea of progress corresponds more than anything else to the only regulative principle that can make history humanly bearable, which is that all dealings must be so constituted that through them people do not become mere means." And later on: "The modem age has understood itself as the age in which reason, and thus man's natural vocation, definitively prevailed. The difficulty created by this self-interpretation was to explain the delayed appearance in history of the form of existence that, as a result of its identity with the nature of man, should have been ubiquitous and taken for granted throughout history." *The Legitimacy of the Modern Age*, 35, 377.

[165] Blumenberg would later see the rationality imputed to history in the philosophies of history as a form of compensation for this contingency: "every speculative subject of history must be seen as compensation for the

» 11 «
Theodicy, Secularization and "Objective Cultural Debt"
Function and Substance in the History of Ideas

No account of Blumenberg's work in this period would be complete without acknowledging the ostensible purpose of *Legitimacy of the Modern Age*: to critique the pandemic of "secularization theorems" in postwar West Germany, most famously Karl Löwith's argument that modern philosophies of history are secularized eschatologies, and Carl Schmitt's claim in *Political Theology* that "all significant concepts of the modern theory of the state are secularized theological concepts."[167] In light of my emphasis on theodicy it is important to be clear that Blumenberg did not consider the role of theodicy in the genesis of the modern concept of rationality to be an example of secularization. But it is even more vital to stress the historical function of Blumenberg's critique of secularization, because it directly concerns the relationship of the concept of contingency to the problem of guilt, historical tradition, and Germany identity.

Instructively, in the revised edition Blumenberg addressed an entire chapter to refuting Marquard's attempt to use the original narrative of *Legitimacy* to bolster the case for viewing the modern philosophy of history and its concept of rationality as a secularization of theodicy.[168] Certainly, there is something intuitive to Marquard's claim. After all, I just spent this chapter reconstructing Blumenberg's work leading up to *Legitimacy* in terms of the tight link he drew between Leibniz's theodicy and the rationality of modern self-assertion. Blumenberg had himself assigned the problem of theodicy a "functional" role in the genesis of the modern age, which Marquard viewed as just another "cunning of reason"-style secularization story. Even Hegel, Marquard pointed out, had proclaimed his own philosophy of history a "secularized theodicy." What better proof for the secularization thesis could there be?

Blumenberg found this conclusion less than convincing. The philosophy of history was not a secularized theodicy, if only because Leibniz's *Theodicy* was not in the first place driven by theological motives, but by the demand of reason. Leibniz's optimistic postulation of the "pre-established

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disappointment resulting from the fact that the individual does not enjoy the benefit of the asserted rationality of history, but on the contrary, this asserted rationality for the first time makes the contingency of his temporal position in an infinite process really unbearable." Blumenberg, 85; For a later text focused in particular on the problems raised by the disproportion between the individual's "lifetime" and the vast expanses of "world time," see Blumenberg, *Lebenszeit und Weltzeit*.

166 The metaphor of the "detour" appears with especial emphasis in Blumenberg, *The Legitimacy of the Modern Age*; *Work on Myth*; *Care Crosses the River*, trans. Paul Fleming (Stanford, Calif: Stanford University Press, 2010). English readers are familiar with this problem of the "detour" as addressed by the "fortunate fall" immortalized in Milton's *Paradise Lost*.

167 Karl Löwith, *Meaning in History: The Theological Implications of the Philosophy of History* (University of Chicago Press, 1957); Carl Schmitt, *Political Theology: Four Chapters on the Concept of Sovereignty*, trans. George Schwab (Chicago: University of Chicago Press, 2010), 36; Kroll, "A Human End to History? Hans Blumenberg, Karl Löwith and Carl Schmitt on Secularization and Modernity"; Robert Buch, "Umbuchung: Säkularisierung als Schuld und als Hypothek bei Hans Blumenberg," *Zeitschrift für Religions- und Geistesgeschichte* 64, no. 4 (2012): 338–58; Daniel Weidner, "The Rhetoric of Secularization," *New German Critique* 41, no. 1 (121) (February 1, 2014): 1–31.

168 Marquard responded directly to Blumenberg's thesis in Legitimacy in the introductory essay for the volume *Schwierigkeiten mit der Geschichtsphilosophie: Aufsätze* (Frankfurt (am Main): Suhrkamp, 1973); Marquard had already written an essay on theodicy in German idealism in 1965, republished in the same volume as his critique of Blumenberg. "Idealismus und Theodizee," in *Schwierigkeiten mit der Geschichtsphilosophie: Aufsätze* (Frankfurt (am Main): Suhrkamp, 1973), 52–65; See also: Odo Marquard, *Theodizeemotive in Fichtes früher Wissenschaftslehre: Rede anlässlich der Ehrenpromotion an der Philosophischen Fakultät der Friedrich-Schiller-Universität Jena*, ed. Hans Robert Jauss (Palm und Enke, 1994); Marquard, "Unburdenings: Theodicy Motives in Modern Philosophy."

harmony" inhering in this best of all possible worlds excluded the possibility of humans improving the world in the course of history. This was the one crucial dimension in which Leibniz had not yet fully attained the position of modern human self-assertion.[169] The *Theodicy* reconciled rationality and freedom of the will, individuality and infinity. But it did not leave room for historical agency in the way we now imagine it.[170]

Blumenberg's refutation of Marquard's argument delved much deeper, however, striking first at the structural logic it shared with other secularization theories. The secularization theory, Blumenberg argued, was at its core beset by the juridical connotation of property ownership and dependence on authentic origins. The original meaning of "secularization" had referred, after all, to the expropriation of ecclesiastical property. Although other scholars had objected that no direct conceptual-historical derivation could be found to justify this claim, Blumenberg found this to be an opportune occasion to refer back to his metaphorological critique of the history of concepts. Conceptual histories had simply overlooked the underlying "orientation toward the background metaphorics of the legal process" already manifest in some of the earliest invocations of the term in the early 19th century. Their secularization arguments, he claimed, exhibited "the catalog of the characteristic features of expropriation proceedings: the identifiability of the expropriated property, the legitimacy of its initial ownership, and the unilateral nature of its removal."[171]

The "anachronism" of the secularization argument, in Blumenberg's eyes, was thus a consequence of its use of these juridical background metaphorics to describe the historical process. To speak of the proper ownership of ideas required reference to historical substances that could be so "alienated" from their original owners, a substance whose identity persisted across historical changes and which expressed a kind of legal "dependency" on its origins. And it presupposed the existence of identifiable subjects "responsible" for such appropriation. Accordingly, in the very act of asserting its unprecedented autonomy as an epoch the modern age betrayed its ontological dependency on the theological dispensation of Christianity. The schema of secularization combined the ancient metaphysics of substance and the prioritization of origins with the voluntarism of Christianity's historical schema. Secularization theories, in short, naively appealed to the metaphysical criteria of antiquity and the Middle Ages without questioning their validity. Instead, following Cassirer's famous distinction between substance and function, Blumenberg suggested that the history of ideas was better served by attending to the function they played in a determinate intellectual system.[172] The mere continuity in the use of a concept did not a priori entail anything about its meaning or the reasons for its persistence. Concepts are not self-identical substances that persisted across time; they do not contain the principle of their own change in history. Rather, they serve determinate needs that correspond to the existential conundrums faced by a historical society. Unanswered and unanswerable questions may persist across epochs, but the means adduced to solve them are recreated ever anew.

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[169] Blumenberg, *The Legitimacy of the Modern Age*, 54.

[170] Although German historicism, beginning with Herder and Humboldt, was inspired by Leibniz's account of individuality, in its account of human progress the late Enlightenment departed decisively from Leibniz's presentation. Georg G. Iggers, *The German Conception of History: The National Tradition of Historical Thought from Herder to the Present* (Wesleyan University Press, 1968); Peter Hanns Reill, *The German Enlightenment and the Rise of Historicism* (University of California Press, 1975); Charles R. Bambach, *The Crisis of Historicism: Neo-Kantian Philosophy of History and Wilhelm Dilthey's Hermeneutics* (Ann Arbor: University of Michigan, 1987); Frederick C. Beiser, *The German Historicist Tradition* (OUP Oxford, 2011).

[171] Blumenberg, *The Legitimacy of the Modern Age*, 23–24.

[172] Ernst Cassirer, *Substance and Function and Einstein's Theory of Relativity*, trans. W. C. Swabey and M. C. Swabey (Courier Corporation, 2004); Moynahan, *Ernst Cassirer and the Critical Science of Germany, 1899-1919*.

The anachronism concealed in the use of juridical metaphorics in the secularization theorem suggested to Blumenberg the underlying motivation of the secularization theorem: it aimed to repudiate the modern age's famous gestures of defiance and independence in asserting its discontinuity from tradition. In opposing a no less radical dependency to the Enlightenment's claims to radical independence, proponents of the secularization thesis aimed to "make conscious… an 'objective cultural debt'," exposing modernity's self-understanding as hopelessly ideological.[173] Somewhat obscured in the English translation here is the close relationship Blumenberg implied between the juridical-moral sense of guilt and the category of "dependency" implied in the relation of debt. The terms "guilt" and "debt," after all, both translate the same German word, *Schuld*. For Blumenberg, the unacknowledged debt of modernity to the Middle Ages constituted its illegitimacy and thus appeared as a mark of its guilt. In essence, the secularization theorem signifies an imputation of guilt to the modern age for its usurpation of the Christian patrimony.

Of course, deciding who was or could be "responsible" for this expropriation was hardly a trivial task. Blumenberg pointed out how several authors cleverly deployed intransitive grammatical constructions to leave ambiguous the "subject" performing the expropriation: whether secularization was "a process of self-alienation or externally induced deformation" could therefore remain obscure.[174] This ambiguity was tactical. However one chose to assign subjects and substances to history, logical difficulties were inevitable.

Such a fine distinction had been involved in Marquard's strongest argument against Blumenberg's denial of the secularization theorem. In his elder's historical functionalism Marquard found yet another "cunning of theology" for the surreptitious work of secularization.[175] The "reoccupation" of theodicy by the philosophy of history and its principle of autonomy had simply extended Augustine's original attempt to displace the burden for the evils into the world onto humanity, by intensifying the humanity's responsibility for the world.[176] Kant's "transcendental dialectic," in which human reason appeared as the immanent source of all of its own illusions and antinomies thus simply represented the peak of theology's continuing use of anthropology to absolve God.[177] Blumenberg's functionalist method thus appeared to Marquard as only the most extreme form of the continuation of theology by other means. It was "countermodern," because, in denying modernity the purity of the absolute break with the past, the absolutely new beginning demanded by Descartes, in favor of the 'provocation-response' model of reoccupation, it once again made modernity dependent on its theological precursor in the form of the continuity of "needs."[178]

But these arguments had several important limitations. First, Marquard simply overlooked the divergent *functions* of theological theodicy and the philosophy of history and their respective notions of freedom. Proponents of the secularization thesis had to presuppose the reality of the freedom they set out to contest: if the modern age was responsible for secularization, it already had to possess the very freedom it had allegedly usurped. Whereas Augustine had been able to assign an immaculate freedom to prelapsarian humanity in his doctrine of original sin, the philosophy of

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[173] "The category of secularization is meant to make it evident that the denial of historical dependence is motivated by an epochal self-interest; it presents the alleged break between modern rationality and its past as ideological. It makes conscious—and that is the inevitable consequence of the theoretical accomplishment to which it lays claim—an 'objective cultural debt.'" Blumenberg, *The Legitimacy of the Modern Age*, 25.

[174] Blumenberg, 18. But both options could be used to impute guilt to modernity. As dialectical theology had demonstrated, even the thesis of Christianity's self-secularization could simply avail itself of the "cunning of history" by making the degeneracy of the modern age a symbol of the world's imminent destruction and the Last Judgment.

[175] Blumenberg, 57.

[176] Marquard, *Schwierigkeiten mit der Geschichtsphilosophie*, 20–21.

[177] Blumenberg, *The Legitimacy of the Modern Age*, 56. This was an argument already in the twentieth century deployed by "dialectical theologians" like Karl Barth and Rudolf Bultmann.

[178] Blumenberg, 59; Marquard, *Schwierigkeiten mit der Geschichtsphilosophie*, 16.

history could only treat human freedom as an "idea" whose realization was reserved for the future. Humanity did not possess the freedom to absolve itself of the guilt it had incurred. And even if, on the one hand, humanity had always already possessed such freedom and agency in history, it would have undercut one of God's primary attributes: "If philosophy of history, in the form of theodicy, is supposed to rescue God's goodness, then it must deny His omnipotence," because it would give humanity precisely that power over the course of history which could only come at the cost of God's providential prerogative. On the other hand, if human self-assertion was, in fact, illusory and powerless, it could no longer be responsible for cosmic evil: "The question of who bears the responsibility pales into insignificance in the face of the question of power. Where power is absent, there cannot be responsibility either."[179] Simply put, the philosophy of history was not marshaled to protect God, but to empower humanity against Him.

Even more, Blumenberg continued, it would unreasonable to expect of modern self-assertion that it spontaneously assert itself out of a pure surplus of freedom with no regard for its circumstances. Just because his functionalism broke with Descartes' interpretation of modernity as beginning anew in no way made it a "countermodern" extension of the "cunning of theology." Although "needs" for meaning and orientation persisted across the epochal threshold, they were not necessarily *theological*. The needs to which theodicy corresponded, for example, had changed: Leibniz's theodicy-cum-logodicy aimed not to preserve God's perfection as *goodness* so much as the world's *reliability* for the human being. And although Descartes' demand for liberation in the form of an absolute beginning appeared to recapitulate the theological ideal of emancipation as "absolution," these too were quite different. Towards the end of *Legitimacy* Blumenberg contested the claim that these concepts involved the same object: "The theological concept of man's absolution [*Freisprechung*] liberates from guilt; the philosophical concept [*Freisprechung* in the sense of emancipation] liberates from dependence on the ownership that God, as the Author of his existence, has in man."[180]

For Blumenberg, such fine distinctions were no mere scholastic triviality. Clarifying the relationship of the history of ideas to contemporary political polemics, he seemed to think, could make all the difference. Attention to these details pointed to the *function* of the secularization thesis in the present, shedding light on the motives that made it such a rhetorically convincing trope. Marquard's peculiar underlying assumptions pointed in this direction. As Blumenberg pointed out, already in 1958 Marquard had claimed that a theologically "provoked" emancipation counted as "neither liberation nor apostasy."[181] But it was nothing more than an "artifice" [*Erfindung*], Blumenberg claimed, for Marquard to suggest that behind every human demand for auto-emancipation there was only the concealed work of theology; arbitrary to deny that the emancipation of human self-assertion represented an authentic achievement simply because it was "provoked" by an "external agency."[182]

In attributing to Marquard an act of "artifice" Blumenberg implied that a hidden motive

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[179] Blumenberg, *The Legitimacy of the Modern Age*, 58. Interestingly, the conceptuality of secularization theories thus recapitulated some of the same highly *modern* paradoxes encountered in the European intellectual history of reason as freedom, autonomy, and dependence, encountered, for example, in Kant's "What is Enlightenment?": how can one justifiably induce autonomy without succumbing to heteronomy? And if such freedom is latent in history, what "reason" could there be for its having laid dormant for so long, only to suddenly bootstrap itself into existence at an arbitrary moment in history?

[180] Blumenberg, 542.

[181] Odo Marquard, *Skeptische Methode im Blick auf Kant* (Alber, 1958), 78; Blumenberg, *The Legitimacy of the Modern Age*, 60–61.

[182] Blumenberg, *The Legitimacy of the Modern Age*, 61. Although as I indicate in this section, the close relationship between guilt and dependence made for an intuitive conflation of these two forms.

must have been at work behind his unwavering belief that any residuum of dependency would imperil the "legitimacy" of modern self-assertion. It was one Marquard shared with all proponents of the secularization thesis: the interest in displacing feelings of discontent with the present onto a guilty past. The juridical framework of the secularization theorem had provided this motive with a rhetorically powerful vehicle. In other words, the secularization theorem's tight connection to the categories of guilt and illegitimacy indicated that it belonged to the postwar keywords of *Vergangenheitsbewältigung*, "mastering the past" and *Aufarbeitung*, "working through." The secularization thesis, Blumenberg suggested, essentially amounted to such an expression of the postwar German cultural politics of "working-through." However ideological modernity's self-interpretation may have been, it was no more ideological than the secularization theorem that aimed to refute it.

It still remains far from clear, however, what kind of a difference Blumenberg intended to make with his critique of the secularization thesis. His politics were notoriously elusive. Although he tended to align with the more conservative elements in West German public life, no segment of the political spectrum proved to be above reproach for employing secularization theory as a proxy for the politics of "the undealt-with past" [*unbewältigte Vergangenheit*] in the present. He accused Heidegger and Adorno, Marquard, Gadamer and Husserl, Schmitt, Arendt and Löwith equally of such misconduct.

To get a grip on this problem, it is worth quoting Blumenberg's reflections on this matter at length one last time:

> That 'objective cultural debt' [*objektiven Kulturschuld*] belongs, more than anywhere else, to the type of situation to which the rubric of 'the undealt-with past' is applied. I have said that the category of secularization contains at least a latent ideological element. This formulation has brought me the odium of an 'unmasker of ideology' [*Ideologiekritiker*], which is not at all to my taste. For it is precisely the kind of 'cultural criticism' derivable from the concept of secularization, which hands out 'guilty' verdicts in its search for the most distant possible object to which to attach responsibility for a feeling of discontent with the present, that ought to be called to account for irresponsibility in relation to the burdens of proof associated with what it presupposes.
>
> Besides their potential for being cited as grounds for blame, besides their implication of a category of guilt, conceptions of illegitimacy like that of secularization also recommend a therapy for acute discontent that would involve a broad-scale conscious 'working through' of past circumstances. Talk of the 'undealt-with past' has concentrated in recent decades on the sins of omission, of what has now become the generation of the fathers—in fact it has concentrated (increasingly) less on those who set the machinery of destruction in motion than on those who neglected to destroy it in good time or to prevent its schemes from being implemented in the first place. One should not fail to notice how such structures of reproach become plausible: They are integrated into a familiar schema, which through its capacity for variation continually gains in apparent conclusiveness.[183]

The general tenor of these lines seems to focus the motives of the political Left, particularly the "redemptive republicans," in Dirk Moses's felicitous phrase, whom conservatives derided for maintaining the stigma of German guilt in their persistent demand to openly work through the

[183] Blumenberg, 117.

past.[184] So why did Blumenberg spend at least as much time criticizing the work of conservatives who, if anything, agreed with his evaluation of the Frankfurt School's politics of memory?

Indeed, if the appeal of secularization thesis lay in its function of concentrating attention on the Nazi past, then it would be strange, to say the least, for conservatives to have so consistently invoked it for precisely the opposite purpose. Blumenberg's ambivalence towards "working through" did not make the use of the secularization theorem to displace responsibility for Nazism onto the original sins of modernity appear any less pernicious. Conservatives like Marquard used the secularization theorem to displace their own unease with contemporary demands from the Left to confront the German past by making modern reason itself culpable. This version of secularization was but a means of displacing an immediate relationship to guilt with a more distant one. Both variants Blumenberg found distasteful. Not only this specific approach to managing guilt came under his ire: every attempt to treat history juridically for the sake of present concerns struck him as, at best, a category mistake. At worst it represented a pernicious politics of the present.

Blumenberg gambled that the transition from a metaphysics of substance to the perspectivalism of functions conformed better to the strictures of modern rationality, and would therefore help drive out this tendency in writing about intellectual history: "It is not only ideas of unilateral guilt that become questionable without the support of substantialisms. The administration of justice in history, or what is looked upon as such, also becomes more difficult, harder to seize in striking images."[185] As I will discuss in later chapters, Luhmann too believed that the shift from a substantialist metaphysics to a post-metaphysical functionalism offered not only purely scientific methodological advantages, but also a means of banishing what he considered the anachronistic juridical conceptuality persisting in the modern social sciences.

But while excoriating the intellectual politics of guilt, Blumenberg nevertheless appeared to remain unable to shed himself of guilt's burden. In light of his lifelong obsession with the themes of guilt and the "administration of justice in history," it is hard not to detext in his critique a barely-concealed expression of self-reproach for his own "undealt-with" feeling of survivor's guilt. "The *futuribilia* of morality," Blumenberg wrote, citing a Scholastic term of art for possibilities which might never be realized, "are the true torment of every introspection. It is also the most gnawing motive of the feeling of guilt of all of those who see themselves as contingently favored."[186] These included all those intellectuals he accused of harboring survivor's guilt. Chiding both Left and Right for their obsession with guilt, he left his own position ambiguous: "there also seems to be a constant need on the part of the bourgeois theorist to participate in the historical guilt of not having been one of the victims. Whether people's readiness to entertain assertions of objective guilt derives from an existential guiltiness of Dasein vis-à-vis its possibilities, as Heidegger suggested in *Being and Time*, or from the 'societal delusion system' of Adorno's *Negative Dialectics*, in any case it is the high degree of indefiniteness of the complexes that are described in these ways that equips them to accept a variety of specific forms."[187] The secularization theory's ambiguity, its plasticity, its capacity for structural variation, was a vehicle of its rhetorical power.

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[184] Moses, *German Intellectuals and the Nazi Past*.

[185] Blumenberg, *The Legitimacy of the Modern Age*, 120.

[186] Hans Blumenberg, *Beschreibung des Menschen*, ed. Manfred Sommer, Auflage: 2 (Frankfurt am Main: Suhrkamp Verlag, 2006), 796.

[187] Blumenberg, *The Legitimacy of the Modern Age*, 118. Despite their radically opposed politics, Blumenberg was no casual reader of Adorno, with whom he may have shared a not too dissimilar temperament. According to a brief exchange between the two philosophers preserved in Blumenberg's *Nachlass*, Blumenberg told his elder he had taught an entire seminar course on *Negative Dialectics*, while Adorno replied that he felt the two shared a common reading of Kant. For whatever it's worth, despite consistently negative references to Critical Theory, Blumenberg was clearly fascinated by the Frankfurt School, collecting newspaper clippings about it for decades.

In its rhetorically productive use of indefiniteness, the concept of secularization was not unlike that of contingency. It was no accident that two of the very authors Blumenberg identified as proponents of the secularization theory would also become the most prominent and vocal West German champions of modern *Kontingenzsinn* (aside from Luhmann), and would both become identified with the conservative *Tendenzwende* of the late 1970's: Odo Marquard and Hermann Lübbe. Not only do contingency and secularization share an analogous conceptual schema encompassing the binary of dependence and emancipation, closely connected to the problem of historical guilt; the concept of contingency itself seems to present a classic test case of secularization. After all, Blumenberg described it as one of "the few concepts of specifically Christian provenance in the history of metaphysics,"[188] while his narrative of modernity had anointed contingency the primary catalyst of epochal transformation. Does this argument not therefore appear to be at cross-purposes to Blumenberg's critique in *Legitimacy*? Is "contingency" in Blumenberg's narrative not *the* secularized product of Christian theology par excellence?

Such a claim would again confuse substance and function. *Kontingenzsinn* is not a self-identical "thing" which could undergo a process of secularization in history. Its characteristic "scopics" entered history as a result of medieval Christian theological acrobatics, wherein it accrued its characteristic "juridical" elements tackling the problem of theodicy. Although the juridical scopics of *Kontingenzsinn* did not disappear in the modern world, their function transformed across the epochal threshold as modernity's intellectual "system" developed an alternative principle of self-organization. That is, it prepared a different approach to the unanswerable problem of theodicy; a problem that had not disappeared, but had only taken on novel dimensions and had therefore required different kinds of answers. The persistence of these juridical elements in late twentieth-century *Kontingenzsinn* can be explained in part by the way they became amenable to the special "needs" of a very peculiar generation of intellectuals.

Certainly, this explicit recognition of *Kontingenzsinn* first arose within the Christian world. But this did not mean that its postwar invocation represented a case of secularization. It would be more accurate to claim that its use belonged to the same syndrome that prompted the mania for secularization theories. Like secularization, the invocation of contingency corresponded to specific, contemporary needs in the Federal Republic of the 1960's and 1970's. And like secularization, *Kontingenzsinn* contained a latent juridical schema marked out by the coordinates of guilt, dependence, and freedom. Contingency was animated by the energies of guilt and working through; by the experience of modernity's paradoxical blend of radical autonomy and freedom, on the one hand, with the dependency and unfreedom experienced as the fate of a technologized and anonymous mass society, on the other. And so finally, like secularization, contingency in the hands of Marquard and Lübbe became a concept that provided a means to "master" the German past, not by eliminating guilt as a category of history altogether, but by merely transferring it onto the inflated historical meta-subject of "modernity."

At the same time, Marquard and others were not entirely misguided in wielding contingency to litigate cultural politics. Blumenberg's narrative of modernity and his interpretation of *Kontingenzsinn* unmistakably cautioned against applying juridical categories like "guilt" to history, a gesture that lent itself almost seamlessly to the omnipresent vocabulary of "*Entlastung*"—*almost*, because as "exoneration" the category of *Entlastung* once again implied a juridical-mythical relationship to history. It proved difficult, if not impossible, to find a language that would allow one to discard this relationship without invoking it once again in the very same act.

Blumenberg's biggest difference from Marquard, it seems, can be found in the characteristic ambivalence he exhibited in his determination to keep his commitments elusive. Ambiguity he

[188] Blumenberg, "Kontingenz," 1794.

considered a virtue, not a vice: "A criterion of intellectual health," he wrote in a brief entry on "Ambiguitätstoleranz" in *Begriffe in Geschichten*, "is the breadth of incompatibilities which can be sustained with respect to one and the same matter, while still providing an incentive to profit from the confusion."[189] It is impossible to say for certain whether the ambivalence reflected in this paean to ambiguity was a manifestation of the kind of resistance to historical closure often spoken of as a means of working through, or whether it was, to the contrary, merely symptomatic of his failure to "master" his own tragically conflicted identity.

[189] Blumenberg, *Begriffe in Geschichten*, 9.

3

Functionalism and Utopia

Social Science Methodology and the Politics of Reality in the United States and West Germany, 1945-1970

» Introduction «

For all its breathless engagement with grandiose metaphysical ideas, Luhmann's mature sociological systems theory was, in important respects, a product of the comparatively mundane transatlantic debates over the functional method, systems theory, and the "end of ideology thesis" in the 1950's and 1960's. Ever since his time with Parsons in 1960-61, Luhmann has long been associated with the Harvard sociologist. Yet the fortunes of Luhmann's functionalism in West Germany traced an inverse path from Parsons', soaring without interruption from the late 1960's past his death in 1998, while across the same period Parsons' structural functionalism languished, before finally being declared a regrettable error by mainstream American sociology, a cautionary example to be avoided by new generations of students. Luhmann, however, was no acolyte seeking to spread and defend his master's gospel. Like Parsons' student, Robert Merton, Luhmann developed his theory by acknowledging the most trenchant critiques of the Parsonian system. But while Merton strove to temper Parsons' abstract theoretical excesses in favor of more empirically sensitive "middle range theory," Luhmann took the opposite tack. Availing himself of the resources of German philosophy, cybernetics, and General Systems Theory, he sought to revise Parson's structural-functionalism into a more abstract, philosophically coherent, and defensible "functional-structuralism."[1]

Although his citations in the early 1960's may bespeak an unprecedented immersion in midcentury Anglo-American social scientific literature, Luhmann was not writing primarily for an English-speaking audience. By the time he began publishing regularly after 1962 German sociology had already taken important strides in refashioning a new identity for itself, shaped not least through a series of high profile debates over theory and method in the 1950's. Though not nearly as acrimonious as their notorious predecessors in the 1920's and 1930's, these controversies involved many of the same characters, themes, and unresolved problems that had once stirred Weimar Germany's intellectual ferment. Even more than their North American counterparts, German sociologists were well versed in the art of using methodological dispute as a proxy for political polemic. But their battle lines were now drawn somewhat differently.

Functional theory had never had an outright advocate among German sociologists, and the development of empirical methods had long been arrested by the relative predominance in German sociology of philosophically driven speculative "theories of society." And so when American methods began to take root in West Germany in the 1950's, functionalism and empiricism appeared as natural partners, allies united in a common front against the "theory of society" now represented by the reconstituted "Frankfurt School" Institute for Social Research. This "positivism dispute," as it later came to be called, which would come to structure so much sociological debate in the ensuring decades, at first pitted empirically-oriented Anglophone "social theory" against the

[1] Niklas Luhmann, "Funktionale Methode und Systemtheorie," in *Soziologische Aufklärung 1: Aufsätze zur Theorie sozialer Systeme* (Wiesbaden: VS Verlag für Sozialwissenschaften, 2009).

philosophical "theory of society."[2] Beneath this opposition in methodological style, however, lay a fundamental disagreement about the nature of social reality and the place of sociology within society. Although the conservative sociologist Helmut Schelsky, for example, aimed to step outside this opposition and promote a unique "third way" for German sociology, he nevertheless became entangled in a corollary struggle with the recently returned émigré Critical Theorist, Theodor W. Adorno. This positivism dispute, which began in the mid 1950's, concerned not so much method or value freedom, but the "reality" of the social totality and the relationship between sociological knowledge and praxis.[3] The debate came to center on those Weimar keywords "ideology" and "utopia," which had already sparked controversy between the Frankfurt School and Karl Mannheim in the 1920's. New to this context, however, was a peculiar emphasis on the category of possibility with respect to reality. On the one hand, Adorno stressed how utopia preserves a realm of non-actualized possibilities otherwise occluded by an ideological society. Such possibilities he considered to be not only necessary for critique, but also immanent to the social totality. On the other hand, Schelsky argued that Germans, disillusioned by the dual experience of fascism and totalitarianism, harbored a unique "hunger for reality" that could only be fulfilled by the hard facts produced by empirical research. Both this realism and the social stability it promised were threatened by the unreality of utopian and ideological possibility. All of these moments—open possibility, the facticity of existence, the specter of disorder and insecurity—formed central elements of *Kontingenzsinn*.

The chapter is divided into two main parts. The first offers an account of some of the major Anglo-American debates over the functional methodology from the early twentieth century through the 1960's. After recounting the origins and basics of the functional method and its major conceptual difficulties, I briefly describe Talcott Parsons' structural-functional theory of action, his subsequent theory of social systems, and the most significant critiques of Parsons' school. I then narrate the major theoretical-cum-socio-political controversies that contributed to the long-term eclipse of sociological systems theory and functionalism in the United States, including the "end of ideology thesis," the "industrial society," and technocracy. Part two details the major currents in postwar West German sociology in the 1950's and their roots in Weimar social theory. A brief overview of the state of German sociology in the 1950's, including the early roots of the positivism dispute, sets up a comparison of the views of Adorno and Schelsky as rival attempts to frame sociology as both a science and a politics of reality. The final section considers the relationship of ideology and utopia to possibility, primarily from within the tradition of Western Marxism.

» 1 Classical Functionalism and its Discontents from Durkheim to Parsons «

a. The History and Politics of Functionalism: Order, Utilitarianism, and Biology

In the twenty-first century the language of functions is ubiquitous. Ask an analytic philosopher of mind about functionalism and they will begin to tell you about the metaphysics of mental states, and how cognitive phenomena can be defined by their causal contributions to the total system of

[2] Theodor W Adorno, ed., *The Positivist Dispute in German Sociology* (Aldershot: Avebury, 1994); Agnes Heller, "The Positivism Dispute as a Turning Point in German Post-War Theory," trans. Mark Ritter, *New German Critique*, no. 15 (1978): 49–56; Hans-Joachim. Dahms, *Positivismusstreit: die Auseinandersetzungen der Frankfurter Schule mit dem logischen Positivismus, dem amerikanischen Pragmatismus und dem kritischen Rationalismus* (Frankfurt am Main: Suhrkamp, 1994); Herbert Keuth, "The Positivist Dispute in German Sociology: A Scientific or a Political Controversy?," *Journal of Classical Sociology* 15, no. 2 (May 1, 2015): 154–69; Marius Strubenhoff, "The Positivism Dispute in German Sociology, 1954–1970," *History of European Ideas* 44, no. 2 (2018): 1–17.

[3] This is a point emphasized above all by Strubenhoff, "The Positivism Dispute in German Sociology, 1954–1970."

cognition.[4] A cognitive scientist might also invoke the language of mental states, although with the conspicuous absence of any reference to metaphysics. And whereas a sociologist would probably refer to functionalism in hyphenated form as "structural-functionalism," a psychologist might explain, to the contrary, that structuralist psychology had developed as a critique of functionalism. Ask a historian—especially of twentieth-century Germany—and they would likely tell you that it developed in the 1970's (some would say the 1950's)[5] in grappling with the problem of how to explain the genesis of the Holocaust adequately, leading to the "intentionalist-functionalist" debates of the 1970's and 1980's. Computer scientists, meanwhile, have long used the language of function to designate all kinds of computer program elements. A mathematician, finally, might prefer a definition not altogether different than the one Leibniz proposed in the seventeenth century.

Sociologists may not have adopted the functionalist moniker until the early twentieth century, but functionalist perspectives are, in important respects, as old as sociology itself. Sociologists and psychologists in the nineteenth century tended to reduce the concept of function to an appendage of utilitarianism,[6] for which "function" merely designated a phenomenon's instrumental character, its "usefulness" for some given end. In contrast to the concept's specificity in mathematics, its everyday usage, originating in the Latin *functiō,* meaning "performance" or "execution," hazily expresses a pragmatic or instrumental attitude. The language of functions draws attention to what something *does*, rather than defining what it *is* (even though, importantly, the semantics of function are often used to make claims regarding the justification—or lack thereof—of something's existence). Something has a function if it is *useful.* Moreover, for something to be called useful usually means that it fulfills a *purpose.* And finally, "function" tends to express these relationships in a mechanical sense: if something functions, one says that it *works*; if it does not, that it is broken or dysfunctional.

Although some, including Talcott Parsons, have detected the utilitarian approach to social inquiry as far back as Hobbes's emphasis on the problem of order,[7] the traditional history of sociological functionalism usually begins in the nineteenth century with discussions of Auguste Comte and then Herbert Spencer's utilitarian, evolutionary positivism. Often with a nod to Marx thrown in for good measure, functionalism is then said to have found its first full articulation in the work of Emile Durkheim, before finally coming to maturity in early twentieth-century French, English and American sociology and anthropology.[8] In other words, the history of functionalism appears more or less coextensive with the official history of the sociological discipline. While some commentators, such as H. Stuart Hughes, have followed Parsons' influential account in emphasizing the rejection of social evolutionism, positivism and utilitarianism to explain the "convergence" of classical sociology around the turn of the century,[9] others, including Anthony Giddens, have argued that this convergence is best traced to the brewing political crisis of liberalism in the fin-de-siècle.[10] Alvin Gouldner, among others, detected in Durkheim's functionalism the lingering imprint of that

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[4] Hilary Putnam, "Minds and Machines," in *Dimensions of Mind*, ed. Sydney Hook (London: Collier-Macmillan, 1960), 138–64; Hilary Putnam, *Mind, Language and Reality* (Cambridge University Press, 1979).

[5] Nicolas Berg, *The Invention of "Functionalism": Joseph Wulf, Martin Broszat, and the Institute for Contemporary History (Munich) in the 1960s* (Wallstein Verlag, 2008), 36–37.

[6] A. R. Radcliffe-Brown, "Functionalism: A Protest," *American Anthropologist* 51, no. 2 (1949): 320.

[7] Talcott Parsons, *The Structure of Social Action*, 2nd ed. (New York: Free Press, 1968).

[8] Alvin W. Gouldner, *The Coming Crisis of Western Sociology* (New York: Basic Books, 1970), 123–24.

[9] For one recent example, see Parsons, *The Structure of Social Action*; H. Stuart Hughes, *Consciousness and Society*, Revised edition (New Brunswick, N.J: Routledge, 2002); Hans Joas and Wolfgang Knöbl, *Social Theory: Twenty Introductory Lectures*, trans. Alex Skinner (Cambridge, UK ; New York: Cambridge University Press, 2009).

[10] Anthony Giddens, "Classical Social Theory and the Origins of Modern Sociology," *American Journal of Sociology* 81, no. 4 (1976): 703–29.

nefarious mixture of utilitarianism and normative biologism that had been pioneered in Spencer's social Darwinism.[11] "The implicit slogan of functionalism," Gouldner later wrote, "was: Survival implies ongoing usefulness—search it out!"[12]

Proponents and critics alike drew mechanical and organic analogies in their account of the meaning of functionalism, as both tropes had long served as "background metaphors" helping to make sense of the phenomenon of purposive order.[13] Spencer's social evolutionism employed the languages of both mechanical, calculative utilitarianism and organic biological growth. And Durkheim recapitulated the opposition between organic and mechanical by casting them as two types of social solidarity, two modes by which societies integrate individuals.[14] For all his hostility to Spencer, Durkheim, who has usually been regarded as the first to give an explicit formulation of functional methodology in the social sciences, further cemented the connection within functionalism between biological analogy and a theory of normativity. For Durkheim, the concept of function referred to the category of objective social needs: "to ask what is the function of the division of labor," he wrote, "is to investigate the need to which it corresponds."[15] What could usefulness possibly mean, after all, if not that some needs are being satisfied?

Durkheim's celebrated answer embraced a concept of function based on an analogy to the health of a biological organism or the survival of a species, one that registered social dysfunctions in the form of disturbances to social normality. High rates of suicide, for example, supplied an indicator of the breakdown of the coherence of shared social norms, or "anomie"—an experience of normlessness expressive of a dysfunctional society, much like how symptoms express the presence of a disease in an organism. In the anomic limit case of suicide, the analogy was buttressed by the literal biological criterion of the self-imposed death of individuals.[16] The criterion of 'meeting an objective social need' to ensure survival thus bestowed the concept of function with the status of a quasi-normative justification for something's existence, which compounded Durkheim's already manifest emphasis on the sociological primacy of the moral norms of harmony and order in the division of labor.[17]

Durkheim's functionalism was hardly an outgrowth of those Darwinistic theories of social evolution that became popular in the late 19th century, even if trace residues remained. Contrary to Gouldner's accusation, Durkheim's functionalism can only be read as an offshoot of Herbert Spencer's evolutionary positivism by neglecting his express intentions.[18] Durkheim self-consciously promoted functionalism as an alternative to Spencer's brand of social Darwinism. His was less a rejection of positivism than of evolutionism. After all, Durkheim leaned quite explicitly on Comte in his methodological texts. But the decision to downplay evolution nonetheless led Durkheim and

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[11] Robert G. Perrin, "Émile Durkheim's Division of Labor and the Shadow of Herbert Spencer," *Sociological Quarterly* 36, no. 4 (September 1995): 791–808; Spencer also wrote frequently, although in a biological context, of the relationship of structures and functions. See Robert George Perrin, "Herbert Spencer's Functionalism" (University of British Columbia, 1974); Herbert Spencer, *Herbert Spencer: Structure, Function, and Evolution* (Charles Scribner's Sons, 1971); Robert L. Carneiro, "Structure, Function, and Equilibrium in the Evolutionism of Herbert Spencer," *Journal of Anthropological Research* 29, no. 2 (1973): 77–95.

[12] Gouldner, *The Coming Crisis of Western Sociology*, 124.

[13] Hans Blumenberg, *Paradigms for a Metaphorology*, trans. Robert L. Savage (Ithaca, N.Y: Cornell University Press, 2010). This will be discussed in further detail below in section b.

[14] Emile Durkheim, *The Division of Labor in Society*, ed. Steven Lukes, trans. W. D Halls (Simon and Schuster, 2014).

[15] Durkheim, 41.

[16] Emile Durkheim, *On Suicide* (Penguin UK, 2006).

[17] "If this is the real function of the division of labor, it must possess a moral character, since needs for order, harmony, and social solidarity are generally reckoned to be moral ones." Durkheim, *The Division of Labor in Society*, 51.

[18] Although others have continued to make arguments in favor of Durkheim's lingering Spencerianism. See, for example, Perrin, "Émile Durkheim's Division of Labor and the Shadow of Herbert Spencer."

other functionalists to emphasize the relative endurance, if not permanence, of structures, as well as the desirability of order, leaving them exposed to accusations of ignoring time, history, and change. As this argument gained currency among French Marxists dissatisfied with Durkheim's Dreyfusard liberalism and sympathies for reformist socialism, it would come to promote in the long-term what Giddens has referred to as the "myth" of sociological conservatism.[19]

Meanwhile, functionalism began to flourish in the rapidly expanding field of cultural anthropology. The British variant of this field that emerged in the wake of World War I often endorsed the biological reading of functionalism in both literal and analogical fashion. Bronislaw Malinowski prominently defined it with respect to deep-rooted biological needs of the individuals composing a given society.[20] Other British functionalist anthropologists, such as E. E. Evans-Pritchard and Alfred Radcliffe-Brown, hewed more closely to the supra-individual, sui generis character of society as a totality proposed by Durkheim, and thus deployed the biological and physiological concept of function analogically rather than literally. The keyword of this functionalism, the original source of "objective social needs," was self-preservation. "The concept of function applied to human societies," Radcliffe-Brown began, "is based on an analogy between social life and organic life."[21] Citing Durkheim's *Rules of Sociological Method* as the first "systematic formulation" of the concept, he defined the function of a "social institution" as "the correspondence between it and the needs of the social organism."[22] These needs, in turn, he redefined as society's "conditions of existence." In other words, 'healthy' societies survived insofar as their institutions adequately addressed the needs of the whole.

The strength of the organism analogy had to do with its ability to indicate the ways in which a system can preserve its identity even as it undergoes a constant change in its constituent parts. Unlike the mechanical metaphor, which implies that the function of a system is to perform a task *for* something else, organic metaphors suggest that the function or "purpose" of a system is both reflexive and immanent to the system: the paramount function of a system is to preserve itself. Radcliffe-Brown could thus equate the "life" of an organism with the "*functioning* of its structure."[23] By analogy, the social life of a community could also be described in terms of the continuous and 'proper' functioning of its core structure, despite the continuous turnover of concrete individuals over time, just as the cells and molecules are continuously replaced and regenerated in the life of an organism. Consequently, functions for Radcliffe-Brown never designated anything more than abstract relations between phenomena.[24] The "functional unity" of a system he could then define as "a condition in which all parts of the social system work together with a sufficient degree of harmony or internal consistency, i.e., without producing persistent conflicts which can neither be resolved nor regulated."[25] Anticipating the inevitable objections to the use of biological analogies in the social sciences, Radcliffe-Brown took care to indicate the limits of his analogy. Defining the unity of a society in terms of its survival did not warrant a complete identification of society with the

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[19] Giddens, "Classical Social Theory and the Origins of Modern Sociology."
[20] Bronislaw Malinowski, "The Functional Theory," in *A Scientific Theory of Culture and Other Essays* (The University of North Carolina Press, 1990).
[21] A. R. Radcliffe-Brown, "On the Concept of Function in Social Science," *American Anthropologist* 37, no. 3 (1935): 394.
[22] Radcliffe-Brown, 394.
[23] Radcliffe-Brown, 395.
[24] "The concept of function as here defined thus involves the notion of a structure consisting of a set of relations amongst unit entities, the continuity of the structure being maintained by a life-process made up of the activities of the constituent units." Radcliffe-Brown, 396.
[25] Radcliffe-Brown, 397.

organism. Indeed, "societies do not die in the same sense that animals die," he admitted, "and therefore we cannot define dysnomia as that which leads, if unchecked, to the death of a society."[26]

Radcliffe-Brown's commitment to the biological analogy was far more practical than philosophical. He never claimed that functionalism had any purchase on the ontological status of society, on its manner of "being." For him, functionalism merely amounted to "a 'working hypothesis' by which a number of problems are formulated for investigation."[27] Lacking any particular attachment to functionalism as an explanation of the world itself, Radcliffe-Brown thus had few qualms about rejecting the label of functionalism altogether fourteen years later, once it had become ever more closely associated in the academic and public imagination with Malinowski's far more literal biologistic functionalism. For by the late 1940's it had become almost a sport for anthropologists to attempt to outdo one another with their scathing take-downs of his relatively idiosyncratic variant of functionalism. UC Berkeley anthropologist Alfred Kroeber, for one, thought it nothing more than "verbal wish-fulfillment."[28] And in a wide-ranging 1948 critique of functionalism as just another "dismal science," Dorothy Gregg and Elgin Williams accused needs-based biological reductionism of a normative sleight of hand, which they viewed as a result of a diffusion of economistic thinking into the other social sciences. By rooting institutions in needs, wants and preferences, they argued, functionalists seemed to propose "that the institutional manifestations of these needs are reasonable, necessary, and just."[29] Radcliffe-Brown concurred. "As for myself, I reject it entirely," he wrote of functionalism in 1949, "regarding it as useless and worse. As a consistent opponent of Malinowski's functionalism I may be called an anti-functionalist."[3031]

Despite Radcliffe-Brown's caveats, functional theories have been dogged ever since by the question of what establishes the normality of a system absent reference to the biological conditions of life and death. In what has become one of the central axes for critiques of functionalism, the so-called "functionalist reference problem" raises the question of how to establish the criteria or "reference points" for determining which system states or structures are to be preserved. Which functional problems matter? And who or what decides? Inattention to these questions or their deliberate evasion might even encourage the functionalist to represent society as a unified "meta-subject" with desires, needs and volitions, thereby commiting an anthropomorphic fallacy.[32]

The problems did not end there. Structural-functional theories that focused on the social whole were also regularly saddled with the charge of ignoring individual motivation. Could one define the needs of a social totality, critics wondered, without identifying it, in some way, with the needs and desires of specific individuals or self-identified groups, as Malinowski had done? If not, social needs could only be said to correspond to a vague imperative to evade social death, whose relevance Radcliffe-Brown denied. Functionalists thus became ensnared in a double bind: either use a non-analogical theory of biological or psychological need, and be accused of physiological or psychological reduction, or propose a theory of objective social needs, and be condemned for ignoring the role of individual motivation and for anthropomorphizing society.

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[26] Radcliffe-Brown, 398.

[27] Radcliffe-Brown, 399.

[28] A. L. Kroeber, "An Authoritarian Panacea," *American Anthropologist* 51, no. 2 (1949): 318.

[29] Dorothy Gregg and Elgin Williams, "The Dismal Science of Functionalism," *American Anthropologist* 50, no. 4 (1948): 597. Of course, this flew in the face of examples of functionalism *avant la lettre*, used to critique society, such as Marx's oft-cited account of society's production of a lumpenproletariat as a reserve labor force to restrain the price of wage labor.

[30] Or better yet he suggested, why not just call it "Malinowskianism" to "prevent confusion[?]" Radcliffe-Brown, "Functionalism," 321, 323.

[31] Radcliffe-Brown, 323.

[32] Walter Buckley, *Sociology and Modern Systems Theory* (Englewood Cliffs, N.J.: Prentice-Hall, 1967), 29.

For many functionalists in the 1940's, a newly revived concept of "equilibrium" promised a path out of the impasse, and kept the door open for biological analogies. Pioneered in the eighteenth century, developed in nineteenth-century physiology,[33] and formalized in economics at the latest in Leon Walras's *Elements of Pure Economics* in 1871,[34] equilibrium models had become part of the stock and trade of early twentieth-century European sociology, appearing in Vilfredo Pareto and Alfred Marshall, and in a somewhat different form in Herbert Spencer.[35] But by the 1940's and 50's, some functionalists appealed to new models of equilibrium that promised greater scientific credibility. Radcliffe-Brown's analogical reference to biological functionalism, for example, resonated with an autonomic yet non-volitional model of life defined in terms of physiological equilibrium that had just begun to gain scientific and popular currency through Walter Cannon's 1932 book, *The Wisdom of the Body*.[36] 'Canonized' for coining the concept of "homeostasis," Cannon's work influenced the first generation of cyberneticists in the 1950's, and contributed to Talcott Parsons' structural-functionalism by way of his colleague at Harvard, physiologist, biologist, and sociologist Lawrence J. Henderson.[37] Such homeostatic systems were said to "contain" latent causes, dormant mechanisms which are then "activated" or "triggered" by external disturbances to the system's equilibrium, the effect of which is to return the system to its previous state of equilibrium with respect to determinate qualities (the room returns to 68 degrees Fahrenheit as the summer day outside warms, for example). Using the concept of feedback, homeostatic equilibrium thus promised a purely causal-mechanistic account of purposive behavior. A linear law could thus describe these circular relationships in the form of a conditional: whenever external cause A, then internal cause B, in order to effectuate effect C, which then acts as a cause to eliminate external cause A.

Although evading the problem of teleology, the introduction of equilibrium thinking to functionalism convinced few of functionalism's detractors. They perceived a reciprocal affinity between the requirement that a function refer to the maintenance and preservation of order and its sometimes overt, sometimes tacit reliance on theories of equilibrium. Who, they asked, defines the equilibrium of the social body? Who defines the limits of acceptable deviation and fluctuation?[38] For critics from the Left, including Gouldner and C. Wright Mills, the answer was obvious: it was the elites who had the power to articulate society's needs. Functionalism remained an ideological brand of conservatism insofar as its concept of equilibrium amounted to little more than an abstraction concealing the interests of those defining and defending the status quo.[39]

Other commentators claimed that sociology had always harbored a conservative inclination, a consequence of its origin in early 19th century reactions to the dual French and industrial revolutions.[40] But in the 1950's, accusations of conservatism tended to fixate on its functionalist

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[33] Michael Heidelberger, *Nature from within: Gustav Theodor Fechner and His Psychophysical Worldview* (Pittsburgh: University of Pittsburgh Press, 2004); Gabriel Ward Finkelstein, *Emil Du Bois-Reymond: Neuroscience, Self, and Society in Nineteenth-Century Germany* (Cambridge, Massachusetts: The MIT Press, 2013).

[34] Leon Walras, *Eléments d'économie politique pure ou théorie de la richesse sociale.* (Lausanne, Suisse: Imprimerie L. Corbaz, 1874).

[35] Carneiro, "Structure, Function, and Equilibrium in the Evolutionism of Herbert Spencer."

[36] Walter B. Cannon, *The Wisdom of the Body* (New York: W.W. Norton & Company, inc, 1939); Steven J. Cooper, "From Claude Bernard to Walter Cannon. Emergence of the Concept of Homeostasis," *Appetite* 51, no. 3 (November 1, 2008): 419–27; For a more extensive intellectual history of the larger discourse of which Cannon was a part, see Stefanos Geroulanos and Todd Meyers, *The Human Body in the Age of Catastrophe: Brittleness, Integration, Science, and the Great War*, 1 edition (Chicago: University of Chicago Press, 2018).

[37] Debora Hammond, *The Science of Synthesis Exploring the Social Implications of General Systems Theory* (Boulder: University Press of Colorado, 2003), 14,31-48, 63–76.

[38] Buckley, *Sociology and Modern Systems Theory.*

[39] C. Wright Mills, *The Sociological Imagination* (Oxford University Press, 2000).

[40] Robert A Nisbet, *The Sociological Tradition.* (New York: Basic Books, 1966).

variant. Its notoriety for conservative leanings was bolstered, especially in the 1960's, because several of its practitioners had wielded its emphasis on balance and equilibrium to justify, among other things, female domesticity.[41]

By the end of the 1950's, even practicing functionalists, wearied by decades of polemics, had become leery of the functionalist moniker. In his Presidential Address to the American Sociological Association in 1959, "The Myth of Functional Analysis as a Special Method in Sociology and Anthropology," Kingsley Davis took up this question by interrogating the alleged uniqueness of the functional method. Davis's argument was not that functionalism should be abandoned, because useless or metaphysical, but rather that it ought simply be recognized as the latent methodology of the social sciences as such. Functionalism, he proposed, captured the resistance of authentic social inquiry to every brand of positivist, scientistic reduction of social science to the empirical study of mechanical causes, on the one hand, or mere "description" on the other. The ubiquity of this capacious brand of functionalism ought to have been enough to put to rest the polemicizing. But Davis recognized that the problem lay in the semantic ambiguity of the term as it had overgrown everyday discourse, in which it was "mainly used to indicate moral imperatives and volitional intent rather than sheer causal relationships."[42] The "paradox of functionalism," he averred, derived from its apparent commitment to explaining the role of moral and volitional behavior without recourse to either causal or moral-volitional analytic categories.

b. "An American Alternative to Marxism:" Talcott Parsons, Systems Theory, and Technocratic Conservatism

By the 1950's, functionalism in the United States had become a dominant force in sociology and anthropology, especially as represented under the banner of Talcott Parsons' structural-functional theory of social action. In their recent textbook of lectures, Hans Joas and Wolfgang Knöbl claim that, "one can understand much of the development of modern sociological theory only if one sees it as a sometimes veiled, sometimes quite open argument with the Parsonian theoretical model."[43] Its widespread appeal was such that Gouldner later called Parsonianism "an American alternative to Marxism," in light of its "intellectual adventuresomeness and its seriousness."[44] But it had become so lost in its own self-referential abstractions, Gouldner charged, that social reality had slipped through its fingers. "Parsons is not so much a substantive social theorist," he complained, "as the grand metaphysician of contemporary sociology."[45] The problem was that Parsons' theory neither corresponded to anything in experience, nor could it *explain* any relevant social phenomena that didn't more or less confirm the dictates of common sense. At most, like any great metaphysical or religious system, it could only "communicate an *image* of the *oneness* of human groups."[46] Even more, he accused functionalists of treating society as a sacred "godhead," with social science as the mediating link to transcendence, and sociologists as its priests.[47]

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[41] Betty Friedan, *The Feminine Mystique* (W. W. Norton & Company, 2010), 196 Friedan depicted functionalism as a dangerous "aberration" from the history of the social sciences, departing from what she saw as their inherent potential for emancipatory and critical work. Margaret Mead in particular was taken to task for her own contributions to the "feminine mystique," disappointing to Friedan in light of Mead's otherwise keen "anthropological awareness of the malleability of human personality," (210) so pronounced in her anthropological fieldwork. Margaret Mead, *Sex and Temperament* (HarperCollins Publishers, 1935).

[42] Kingsley Davis, "The Myth of Functional Analysis as a Special Method in Sociology and Anthropology," *American Sociological Review* 24, no. 6 (December 1, 1959): 759.

[43] Joas and Knöbl, *Social Theory*, 39.

[44] Gouldner, *The Coming Crisis of Western Sociology*, 177.

[45] Gouldner, 207.

[46] Gouldner, 211.

[47] Gouldner, 265.

Parsons presented himself as the emblematic synthesizer. He could appear as either the hero who united Weber and Durkheim, as Jeffrey Alexander argues in his four-volume reconstruction of sociological theory, or as the villain who joined the worst of two worlds, as Gouldner proposed, marrying obscurantist, irrationalist German romantic idealism to the mechanical, positivistic, and utilitarian bourgeois philistinism of France and Great Britain.[48] Both interpretations inevitably began with Parsons' structural-functional theory of action. Formulated in his first and most famous book, *The Structure of Social Action* (1937), this theory supplied a riposte to what Parsons viewed, somewhat tendentiously, as the hegemony of reductive utilitarianism in American social science.[49] Trained in Weberian methods in Heidelberg, Parsons sought to correct this error by surveying four representatives of classical European sociology. Weber, Durkheim, Vilfredo Pareto, and Alfred Marshall, he argued, had simultaneously converged at the turn of the 20th century around a shared rejection of positivist utilitarianism, yielding more sophisticated theories of social action and order.[50] This account furnished Parsons with a platform for presenting his own proprietary "synthesis" of his precursors, a unified theory of social action, designed to address what he proclaimed to be the central—and ultimately, Hobbesian—question of sociology: how is social order possible?

Parsons employed "utilitarianism" as a straw man representing the failure of American social science to account for the genesis and maintenance of social order.[51] Against economists from Adam Smith to Pareto, he regarded theories as insufficient that considered individuals pursuing their own, isolated ends as the basic unit of social analysis. But unlike Durkheimian functionalists, Parsons also did not think that the question of order could be adequately addressed without a coherent normative theory of individual action. Society, for Parsons, had to be understood as an integrated network of normatively coordinated actions. As Luhmann would later put it, Parsons' basic project could be distilled into the formula, "action is a system."[52]

Parsons considered Weber's typology of action a suitable starting point for a Durkheimian theory of social order. On the one hand, Parsons agreed with Weber that action presented an irreducible unit of sociological inquiry, even though he pushed back against what he perceived as the irrationalist strain Weber shared with positivist utilitarianism. Both had assumed that individual values, purposes, and needs were simply sociological givens, at best to be dissected by psychologists, but ultimately not amenable to sociological explanation. This positivistic stance, Parsons charged, forfeited the ability to account for how the various ends of action so often coincide, or at least proved sufficiently amenable to coordination to enable social order. On the other hand, although Durkheim was to be lauded for bringing to view the social origins of moral norms, he methodically discounted individual action, viewing it an expression of the individualistic morality of modern, organically integrated societies. An "idealistic" and voluntaristic theory of action rooted in individual freedom that did not reduce the individual to society, Parsons thought, would be required to bridge the gap between Durkheim and Weber.[53] In short, *The Structure of Social Action* set out to establish a new basis for sociology as a theory of action coordinated by and reproducing social norms.[54]

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[48] Jeffrey C Alexander, *The Modern Reconstruction of Classical Thought: Talcott Parsons* (Berkeley, Calif.: University of California Press, 1983); Uta Gerhardt, *Talcott Parsons An Intellectual Biography* (Cambridge: Cambridge University Press, 2002).
[49] Parsons, *The Structure of Social Action*.
[50] An argument that became central to another landmark work coming out of Harvard: Hughes, *Consciousness and Society*.
[51] In so doing, Parsons deliberately overlook the other non-utilitarian strains of American sociology, for example, George H Mead, *Mind, Self, and Society* (Chicago, Ill: Univ. of Chicago Press, 1934).
[52] Niklas Luhmann, *Introduction to Systems Theory*, ed. Dirk Baecker, trans. Peter Gilgen (Malden, MA: Polity, 2013), 7.
[53] "Parsons derives the action component of his theory from Max Weber's work and the system component from Durkheim's. But, at the same time, he also demonstrates that Weber was forced to include system components in his system, while Durkheim could not avoid questioning the type of material out of which societies are made." Luhmann, 8.
[54] This description more or less follows the account in Joas and Knöbl, *Social Theory*.

Parsons later complemented his structural theory of action with a functionalist theory of the structures of social order, expounded in his 1951 tome, *The Social System*.[55] Like Durkheim, Parsons emphasized the priority of values and social norms in every instance of social order. But he also used norms to try to overcome Durkheim's notorious neglect of individual action by presenting norms as the point of contact between the theory of action and the theory of order. In essence, moral norms served as the social cement binding individual action and social order. The recently developed sociological theory of "roles" in the work of George Herbert Mead, Parsons and Merton furnished a more precise mechanism for explaining the work of norms. An element by which individuals became socialized *as* individuals, roles mediated between individual actions and social structures.

Parsons and his followers inspired many of the same critiques raised in the anthropological community in the 1930's and 1940's. Perhaps the most consistent complaint about Parsonian theory was directed at its irredeemable degree of abstraction, exacerbated by Parsons' turgid—to put it mildly—prose. Soon, a new crop of young systems theorists from outside his school attacked Parsonian functionalism for its problematic assumptions about the nature of systems. American sociologist Walter F. Buckley, for example, who would found the school of "sociocybernetics,"[56] criticized Parsons' theory for its lingering biologism.[57]

Even many of Parsons' students chafed at what they often perceived as the navel-gazing quality of his social metaphysics. Exemplary in this regard was Robert Merton, one of the founders of the American sociology of science, and perhaps Parsons' most significant and influential student. As early as the 1940's, Merton began to incorporate the critiques of his teacher into his revised approach to the functional method. In several influential essays, he coined the term "dysfunction" and established the distinction between "latent" and "manifest functions," hoping thereby to lend the functional method more nuance and empirical utility. Against what he viewed as the excesses of Parsonian abstraction, Merton promoted the idea of "middle-range theory," intended to negotiate and ameliorate the opposition between empirical and speculative research.[58] Like Weber, he was a theoretically well-versed practitioner of a craft, attentive to the nexus joining empirical method and theoretical speculation. Middle-range theories that articulated this intersection, he argued, offered a far more promising and productive program for future research. They could avoid both the self-referential sterility of theory and the bad infinity of endlessly accumulated empirical facts.[59]

By the 1950's, Parsonsian functionalism had become so culturally and politically dominant that the name 'Parsons' had become more or less synonymous with sociological functionalism. But the conflict extended further, as functionalist systems theory increasingly came to represent for its critics more than a methodological error. It amounted to a dangerous ideology. Parsons' continued adherence to the Weberian myth of value freedom was only the beginning.[60] For those like Alvin

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[55] In the 1990's Luhmann would argue that Parsons was, in fact, never simply another proponent of that structural-functionalism associated with anthropology, as many, including a younger Luhmann, had long assumed. Parsons' focus on treating action as a "system," Luhmann believed, set him apart from others who treated theories of action and systems theories separately. Luhmann, *Introduction to Systems Theory*, 6.

[56] R. Felix Geyer and J. van der Zouwen, eds., *Sociocybernetics: Complexity, Autopoiesis, and Observation of Social Systems*, Contributions in Sociology, no. 132 (Westport, Conn: Greenwood Press, 2001).

[57] Walter Buckley, "Social Stratification and the Functional Theory of Social Differentiation," *American Sociological Review* 23, no. 4 (1958): 369–75, https://doi.org/10.2307/2088799; Buckley, *Sociology and Modern Systems Theory*.

[58] Robert K Merton, "Manifest and Latent Functions," in *Social Theory and Social Structure* (New York: The Free Press, 1968); Robert K Merton, "On Sociological Theories of the Middle Range," in *Social Theory and Social Structure* (New York: The Free Press, 1968).

[59] Craig J. Calhoun, ed., *Robert K. Merton: Sociology of Science and Sociology as Science*, A Columbia/SSRC Book (New York: Columbia University Press, 2010), vii.

[60] Alvin W. Gouldner, "Anti-Minotaur: The Myth of a Value-Free Sociology," *Social Problems* 9, no. 3 (1962): 199–213; Gerhardt, *Talcott Parsons An Intellectual Biography*, 26.

Gouldner, Parsonianism represented the worst of stodgy, anti-democratic, elitist, and technocratic liberalism, the bugbear of the burgeoning of countercultural radicalism of the 1950's. "It is not likely that the devotees of Psychedelic Culture will find Parsonianism congenial," Gouldner mused in *The Coming Crisis of Western Sociology*—essentially an anti-Parsonian screed—"Indeed, the mind boggles at the thought of a Parsonian hippie."[61]

Gouldner also touched on a paradox of Parsons' functionalism not often elsewhere noted: it combined scientific anti-humanism with moralizing pedantry. On the one hand, Parsons assumed a god's eye view of society, in which humans appeared as ants, making him appear complicit with the amoral technological flattening of authentic individuality in the "mass society," in which "[m]an is a hollowed-out, empty being filled with substance only by society."[62] Despite this amoral method, on the other hand, Gouldner also accused all functionalists since Durkheim of an excessive fixation on the priority of moral beliefs in society over institutional factors.[63] "Parsons is a rare creature," Gouldner concluded: "the contented moralist."[64] But Parsons' was a puritanical moralism of order and discipline, not justice. Culminating in Parsons' grand theory, Gouldner argued, functionalism served but one god: order, and at any cost. "The problem of social order…" he remarked derisively, "is the conservative's way of talking about the conditions when an established elite is unable to rule in traditional ways and when there is a crisis of the master institutions."[65] The keyword "integration," one of Parsons' five so-called "pattern variables," suggested that social order necessarily involved the fusion of individuals into a greater whole. It signified rigidity, restriction, and the formation of distinct identities, amounting to a denial of change and ambiguity. Such an image, Gouldner chided, "expresses an Apollonian vision of a social world composed of firmly bounded social objects, each demarcated and separated from and setting limits upon the other. To seek or prefer order is to seek or prefer 'structures': the structure of social action, not the *process*."[66]

In favoring structure over process, Parsons also fell victim to the reproach of failing to account for social change. Much like the other contemporary structuralisms with which it was often allied, Parsonian functionalism was accused of an excessive fixation on the present, or on transhistorical and abstract structures invariant with respect to time. Merely a consequence of its focus on order, the modes of historical transformation lay beyond its grasp. This static character of functionalism was particularly pronounced in its apparently deliberate eschewal of theories of social conflict. It assumed the perspective of the social engineer who aimed, in high modernist fashion, to "design" institutions immune to disruptive dispute.

Radical critics like Gouldner were not alone in chastising Parsonian functionalism for its alleged aversion to social conflict. Gouldner's criticism echoed the highly influential work of German-British sociologist Ralf Dahrendorf, one of the handful of German social scientists before Luhmann to move effortlessly between Anglo-American and German sociological debates. Unlike Gouldner, Dahrendorf was a staunch social liberal elitist, who would later serve in the German Reichstag for the liberal FDP in 1969-70, before eventually being appointed to the English peerage in 1993. Like Gouldner, however, he was not in all respects hostile to functionalism. Structural-functionalism, he thought, did not need to be eradicated so much as complemented by other approaches, particularly Marxist analyses of class conflict. His 1959 study, *Class and Class Conflict in Industrial Society* attempted to marry the two approaches, becoming one of the founding texts of the

[61] Gouldner, *The Coming Crisis of Western Sociology*, 160.
[62] Gouldner, 206.
[63] Gouldner, 247.
[64] Gouldner, 290.
[65] Gouldner, 146.
[66] Gouldner, 251.

field of "conflict theory."[67] Dahrendorf scolded theoretical functionalists like Parsons for tacitly endorsing a brand of pollyannaish utopianism that construed order as the absence of conflict. Every theory of the sort, Dahrendorf argued, required a *deus ex machina* modeled on the doctrine original sin to explain deviation from the normative order prescribed as the essence of a system. Conflict could therefore only ever manifest as a deviation, the "well-known villain of the peace of utopia," the criminal, who derives his power from some "undetermined variable," a "swerve" such as "individual psychology."[68] It was a result, he argued, of the seemingly inevitable tendency of functional analysis to take recourse to models of "closed systems," exemplified in Parsons systems theory.[69] But such closure entailed that everything would be connected to everything, every particular with a place, a meaning, and a reason. "The system theory of society comes, by implication," Darhendorf wrote, drawing on a phrase of his mentor Karl Popper, "dangerously close to the conspiracy-theory of history."[70]Against the backdrop of recent revelations of Stalinist crimes, the implication of Dahrendorf's rapid transition from accusations of utopianism to conspiracy-prone paranoia was not lost on its readers. For the proud Cold Warrior, the utopian fantasy of universal harmony and the totalitarian impulse were anything but strange bedfellows.[71]

Beneath the political accusations against functionalism's utopian qualities laid a philosophical argument against its apparently rationalistic proclivities. The systems theorist, critics argued, could see in society nothing but a network of rigid, abstract functions, drained of every authentically human, individual quality. It suggested a shorthand of Leibniz's principle of sufficient reason: the functionalist claim that every social phenomenon has a function could be easily conflated with the argument that every social phenomenon therefore also had a *reason*—and a *good* reason at that—for existing. In other words, functionalism affirmed the Right Hegelian reading of Hegel's dictum, "the rational is the real, the real is the rational." If an actually existing society were always already rational, then nothing in it could be judged extraneous, unnecessary, or unjust. Deliberate social change by means of conflict, critics claimed, was therefore anathema to the functionalist, because it might

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[67] Ralf Dahrendorf, *Class and Class Conflict in Industrial Society* (Stanford University Press, 1959); David Lockwood, "Social Integration and System Integration," in *Explorations in Social Change*, ed. GK Zollschan and W. Hirsch (Boston: Houghton Mifflin, 1964); Most adherents of this approach, however, saw themselves as opponents of functionalism. Hence important attempts to explicitly synthesize the two, particularly in the work of David Lockwood, began to emerge in the early 1960's, which directly influenced Luhmann and especially Habermas, who directly took over Lockwood's language of "social" versus "system integration" in Jürgen Habermas, *The Theory of Communicative Action, Volume 1: Reason and the Rationalization of Society*, trans. Thomas McCarthy (Boston: Beacon Press, 1985); Jürgen Habermas, *The Theory of Communicative Action, Volume 2: Lifeworld and System: A Critique of Functionalist Reason*, trans. Thomas McCarthy (Boston: Beacon Press, 1985).

[68] Ralf Dahrendorf, "Out of Utopia: Toward a Reorientation of Sociological Analysis," *American Journal of Sociology* 64, no. 2 (1958): 120.

[69] This ignored the fact that Parsons and others had recently and explicitly emphasized, in reliance on Cannon and Bertalanffy, the "environmental openness" of the modern concept of system. Hence, Luhmann thought Dahrendorf's critique applied to Malinowski, but not to Parsons. See Luhmann, "Funktionale Methode und Systemtheorie," 64.

[70] Dahrendorf, "Out of Utopia," 121; This is likely a reference to the concept of the "conspiracy theory of society," coined by Popper. See, Karl Raimund Popper, *The Open Society and Its Enemies* (Princeton: Princeton University Press, 1971); Charles Pigden, "Popper Revisited, or What Is Wrong With Conspiracy Theories?," *Philosophy of the Social Sciences* 25, no. 1 (March 1, 1995): 3–34.

[71] The relationship of "utopia" and methodology could cut in contrary directions, however. While Dahrendorf thought that Parsonian functionalism's problematic aversion to conflict and emphasis on harmony were the result of its utopian proclivities, Gouldner accused functionalism of harboring a conservative, *anti*-utopian bent that precluded the possibility of imagining another society. Meanwhile, liberals like Judith Shklar blamed the decline of authentic politics on the eclipse of utopian thinking, which she viewed as the long-term result of the pessimistic fatalism of the counter-Enlightenment tradition. See, Judith N. Shklar, *After Utopia: The Decline of Political Faith* (Princeton University Press, 1957).

erode the rational harmony of the system.[72] Goulder did not mince words he when pointed out traces of Leibnizian *Theodicy* in Parsons' functionalism: "While not perfect," Goulder argued, "it is perfectly clear that, from Parsons' standpoint, ours is the best of all possible social worlds."[73]

c. "Industrial Society" and the "End of Ideology"

The alleged alliance between functionalism, systems theory, and a quietist, conflict-averse and technocratic politics gained in plausibility from the wider political, intellectual and cultural contexts of the early Cold War decades. Despite Merton and others' influential qualifications, the image of functionalism as promoting the vision of a conflict-free self-sustaining system in equilibrium not only remained dominant, but was also reinforced by its compatibility with a welter of social theories in the 1950's triumphantly proclaiming the "end of ideology."[74] Nineteenth-century ideologies had been exhausted, according to this thesis, not so much because of their destructive effects, as witnessed in the Second World War, but because state-managed industrial capitalism and the growth of the middle class had simply overcome class conflict and economic instability by effacing the formerly venerable boundary between state and citizen, public and private. Under the moniker of "industrial society," such processes had also successfully eroded the social bases of ideological polarization.[75] Politics therefore became reduced to the technocratic planning, which preserved economic stability and maintained social equilibrium.[76]

Critics of the end of ideology thesis were aplenty. But their arguments were often at odds with one another. Building on theories of totalitarianism, a few, such as Arendt and Giddens, viewed industrial society, in both concept and reality, as a denial of any political autonomy, an outgrowth of an overemphasis, shared by Marxists and liberals alike, that the state was simply an expression of more fundamental social structures.[77] Other critics, by contrast, predominantly Marxists and radicals of one stripe or another, charged functionalist proponents of the concept of industrial society with downplaying the importance of economics in favor of the primacy of the political (or at least the administrative state). For midcentury American social theorists, the post-ideological, administered society appeared to be "transcending capitalism," in Howard Brick's phrase, as the economy came

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[72] This might not be fair to Leibniz, however, as Moynahan has pointed out. Unlike Spinoza, Leibniz insisted on the inevitability of conflict. Gregory B. Moynahan, *Ernst Cassirer and the Critical Science of Germany, 1899-1919* (London: Anthem Press, 2013), 101. His theodicy, as I stress repeatedly, was a theory of compossibility, which recognized that not every possibility could be instantiated in the same universe without logical conflict. Human suffering and real conflict appeared a necessary byproduct of perfection.

[73] Gouldner, *The Coming Crisis of Western Sociology*, 289.

[74] Seymour Martin Lipset, *Political Man: The Social Bases of Politics.* (Garden City, N.Y.: Doubleday, 1959); Daniel Bell, *The End of Ideology: On the Exhaustion of Political Ideas in the Fifties* (Glencoe, IL: Free Press, 1960); Chaim I Waxman, *The End of Ideology Debate,* (New York: Funk & Wagnalls, 1969); Iain Stewart, "The Origins of the 'End of Ideology?' Raymond Aron and Industrial Civilization," 2015, 177–90, https://doi.org/10.1007/978-1-137-52243-6_14.

[75] Raymond Aron, *War and Industrial Society*, ed. Mary Bottomore (London: Oxford University Press, 1958); Clark Kerr, *Industrialism and Industrial Man* (New Jersey: Princeton, 1960).

[76] Anthony Giddens has therefore claimed that the epistemological debates over functionalism, described above, had the effect of distracting the conversation, at least in the United States, away from an assessment of the category of "industrial society," the more significant correlate of structural-functionalism. Giddens, "Classical Social Theory and the Origins of Modern Sociology," 718.

[77] This thesis formed the primary starting point of Arendt's *Human Condition*: "That politics is nothing but a function of society… is not a discovery of Karl Marx but on the contrary is among the axiomatic assumptions Marx accepted uncritically from the political economists of the modern age. This functionalization makes it impossible to perceive any serious gulf between the two realms…" Hannah Arendt, *The Human Condition*, 2nd ed (Chicago: University of Chicago Press, 1998), 33; Giddens, "Classical Social Theory and the Origins of Modern Sociology."

ever more under the heel of the state.[78] American sociology in the 1950's had not only downplayed class, to the chagrin of Marxists and liberal conflict theorists, it had also substantially neglected the independent role of the economy. Studies of bureaucracies, factories and firms abounded, certainly, but the primacy economics had previously been accorded in Anglophone sociology was conspicuously absent. Others, including some proponents of the concept of the industrial society, claimed that each side had only glimpsed a partial truth: *both* politics and economics had declined in relevance, because the true prime mover of industrial society was a techno-scientific expertise that had effectively neutralized the dangerous fluctuation of both politics and economics. This definition would come to form the core of attempts to transcend the concept of the industrial society by the early 1970's, as in Daniel Bell's "post-industrial society," which emphasized the rise of the service industry, white-collar work, and new communication technologies as contributors to the new technocratic status quo.[79]

Debates about "technocracy" in the United States, revived in political debate in recent years to disparage everything from the European Union to the "Deep State," and often taking the form of the epithet "neoliberal technocracy,"[80] may have originated in the attempts of a group of engineers to promote technocracy as a solution to the social ills, a movement that had peaked during the Great Depression.[81] But as an object of social critique, "technocracy" only really came into its own as an epithet directed at both Parsons and the new class of "systems analysts" entering the ranks of the Federal bureaucracy in the 1960's. Functionalism and systems theory, these critics charged, had been complicit in the transition from the industrial administration of things to the technocratic administration of people in the postwar society, evident in what was perceived as the excessive focus of American social scientists on bureaucracy.[82] The authentic political sphere had been ever more eroded by an administration of welfare, which displaced decision-making from the will of 'the people' to the competence of experts. Technocracy emboldened, democracy appeared as its most immediate victim.[83] The very functionalist analysts of bureaucracy, Gouldner charged, were responsible for fostering this quietist acceptance of this bureaucratic status quo, perpetuating Weber's bureaucratic pessimism by insisting that citizens learn to live with this kind of bureaucracy rather than looking for ways to change it.[84]

By the mid to late 1960's the language of systems had become one of the most palpable bugbears of radical critique across the political spectrum.[85] Robert Lilienfeld, for example, accused systems theory of being nothing more than a form of technocratic ideology, leading to the embrace rather than critique of what John Kenneth Galbraith dubbed the "technostructure" or Zbigniew Brzezinski's "technotronic era."[86] Systems theory thus often fell victim to the same critiques as

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[78] Howard Brick, *Transcending Capitalism: Visions of a New Society in Modern American Thought* (Ithaca: Cornell University Press, 2006).
[79] Daniel Bell, *The Coming of Post-Industrial Society: A Venture in Social Forecasting* (New York: Basic Books, 1973).
[80] Jürgen Habermas, *Im Sog der Technokratie kleine politische Schriften XII.* (Suhrkamp-Verlag, 2013).
[81] William E. Akin, *Technocracy and the American Dream: The Technocrat Movement, 1900-1941* (University of California Press, 1977); Charles H. Davis, *The American Technocracy Movement: A Case Study in the History of Economic Thought* (UMI Dissertation Information Service [Publisher], 1986).
[82] Joel Isaac, "Tangled Loops: Theory, History, and the Human Sciences in Modern America," *Modern Intellectual History* 6, no. 02 (August 2009): 397–424.
[83] Jürgen Habermas, "Technology and Science as 'Ideology,'" in *Toward a Rational Society; Student Protest, Science, and Politics* (Boston: Beacon Press, 1970).
[84] Alvin W. Gouldner, "Metaphysical Pathos and the Theory of Bureaucracy," *The American Political Science Review* 49, no. 2 (1955): 496–507.
[85] Howard Brick, *Age of Contradiction: American Thought and Culture in the 1960s* (New York: Cornell University Press, 2000).
[86] Robert Lilienfeld, "Systems Theory as an Ideology," *Social Research* 42, no. 4 (1975): 637–60; Robert Lilienfeld, *The Rise of Systems Theory: An Ideological Analysis*, 1 edition (New York: Wiley, 1978).

functionalism. Detractors highlighted its relationship to biological science, viewing it as little more than a recapitulation of the worst of the political metaphorics of the organism. "As philosophy, systems theory is meretricious, adding nothing to our present condition," Lilienfeld wrote; "as social theory, it is sterile, a mere repetition of old ideas dressed in new terminology - it is simply a disguised version of an older 'organic' image of society, which sees social institutions as knit together in a manner analogous to the organs of the body, with individuals as cells of this body-social, an image going back at least to the Middle Ages."[87]

Others pointed to the nefarious political consequences of systems theory's modernism. Nils Gilman has even suggested that the hostility directed at Parsons "had less to do with objections to the particularities of his method or the niceties of his logic than it did with a radical rejection of Parsons' view of modernity as a coherent and desirable object."[88] Critics did not hesitate to reduce all forms of systems thinking to its most execrable manifestations in Cold War militarism. Having entered the domain of public policy during the Kennedy and Johnson administrations as "systems analysis," and contributing to the reformist zeal of the experts driving Johnson's Great Society, systems approaches of all kinds were accused of eroding democratic politics and promoting a new Cold War consensus.[89] The kinship between systems analysis and the "systems engineering" and "systems management" developed in the postwar military-industrial complex by institutions like RAND didn't help dispel these associations.[90] And so despite all differences, detractors tended to "equate the concepts of 'systems theory' and 'systems thinking' with 'systems analysis.'"[91]

As the 1960's progressed, others would point to the multiple and undeniable links between functionalism, systems theory, and "modernization theory." Although Parsons had a somewhat ambivalent relationship to this academic-cum-political project, many of those deeply influenced by his work, such as W.W. Rostow, married a social scientific theory of modernity to an ideology of social development and evolution that directly buttressed American Cold War political projects of intervention in the non-Western world in the 1950's and 1960's.[92] The considerable and highly visible failures of this program would forever tarnish the legacy of Parsonian functionalism in the

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[87] Lilienfeld, "Systems Theory as an Ideology," 656–57; This critique ignores Parsons's deep-seated and long-standing hostility to unmediated organicism, which he saw as the root of many reactionary, anti-intellectualist theories of the 1930's. Gerhardt, *Talcott Parsons An Intellectual Biography*, 29.

[88] Nils Gilman, *Mandarins of the Future: Modernization Theory in Cold War America*, New Studies in American Intellectual and Cultural History (Baltimore: Johns Hopkins University Press, 2003), 75.

[89] Ida R. Hoos, *Systems Analysis in Public Policy: A Critique, Revised Edition*, Revised edition (Berkeley: University of California Press, 1984); Paul Erickson et al., *How Reason Almost Lost Its Mind: The Strange Career of Cold War Rationality* (Chicago ; London: The University of Chicago Press, 2013).

[90] For essays on the post World War II boom of systems thinking, see Agatha C. Hughes and Thomas Parke Hughes, eds., *Systems, Experts, and Computers: The Systems Approach in Management and Engineering, World War II and After* (Cambridge, Mass: MIT Press, 2000); on the origins of systems analysis in World War II, see David A. Mindell, "Automation's Finest Hour: Radar and System Integration in World War II," in *Systems, Experts, and Computers: The Systems Approach in Management and Engineering, World War II and After*, ed. Agatha C. Hughes and Thomas Parke Hughes (Cambridge, Mass: MIT Press, 2000); and Erik P. Rau, "The Adoption of Operations Research in the United States during World War II," in *Systems, Experts, and Computers: The Systems Approach in Management and Engineering, World War II and After*, ed. Agatha C. Hughes and Thomas Parke Hughes (Cambridge, Mass: MIT Press, 2000); On the Great Society, see David R. Jardini, "Out of the Blue Yonder: The Transfer of Systems Thinking from the Pentagon to the Great Society," in *Systems, Experts, and Computers: The Systems Approach in Management and Engineering, World War II and After*, ed. Agatha C. Hughes and Thomas Parke Hughes (Cambridge, Mass: MIT Press, 2000).

[91] Hammond, *The Science of Synthesis Exploring the Social Implications of General Systems Theory*, 3.

[92] W. W. Rostow, *The Stages of Economic Growth: A Non-Communist Manifesto* (Cambridge: Cambridge University Press, 1960); for more on Rostow and other modernization theorists, see Gilman, *Mandarins of the Future*; Erickson et al., *How Reason Almost Lost Its Mind.*

eyes of many social scientists and political progressives. It appeared as an ideological justification for everything from failed development schemes in sub-Saharan Africa to the war in Vietnam.

Systems analysis, systems dynamics, and systems engineering, however, were not identical to systems theory.[93] And most systems theorists and cyberneticists had little to do with modernization theory. Boulding and Rapoport, for example, had been consistently outspoken critics of the military-industrial complex and the Vietnam war, and Norbert Wiener, whose cybernetic work had origins in World War II research on anti-aircraft weaponry,[94] spent most of his late career lambasting militarism, including that of colleagues in cybernetics like John von Neumann.[95] Systems science, moreover, directly contributed to the burgeoning ecological consciousness, and more generally, to the 1960's humanist's commonplace celebration of "holism" as against the reductionist science held responsible for Western culture's centuries-long domination of nature. Brick argues that, in hindsight, "[it] would be unfair to conclude that Parsons' analysis of functional processes of social control simply showed a preference for homogeneity characteristic of cold war regimentation."[96]

Even more, technological fetishism and systems thinking were far from the sole preserves of technocratic elites, but would become, by the late 1960's and increasingly in the 1970's, a fixture of several strains of the burgeoning counterculture, for whom technology harbored yet-unfulfilled utopian possibilities.[97] In light of the contributions of Wiener and Gregory Bateson, for example, Brick argues that "the dismissal of systems theory, by its critics in the 1960's and since, as a technocratic ideology remains far too simple."[98] From Bertallanfy's explicit flirtations with Nicolas of Cusa, to Bateson's speculative ecology of mind, systems theory has long maintained a curious affiliation with mystical traditions that had often been less than supportive of secular authority.[99] Turning on its head the Weberian perspective most famously championed by Marcuse, for whom technology and systems thinking arrived hand in hand as dissolving agents of human solidarity and authenticity, for those like Stewart Brand and Gregory Bateson, technology harbored the promise of new modes of communication, interaction, consciousness, and, consequently, solidarity.[100] Indeed, "self-organization" became a popular slogan and strategic ideal among the "new social movements" cropping up in the 1970's.[101]

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[93] For an excellent revision to the one-sided account of "Cold War rationality," see Hunter Crowther-Heyck, *Age of System: Understanding the Development of Modern Social Science* (Baltimore: Johns Hopkins University Press, 2015).

[94] Peter Galison, "The Ontology of the Enemy: Norbert Wiener and the Cybernetic Vision," *Critical Inquiry* 21, no. 1 (October 1, 1994): 228–66.

[95] Flo Conway, *Dark Hero of the Information Age: In Search of Norbert Wiener, the Father of Cybernetics* (New York: Basic Books, 2005), 237–54; Ronald R. Kline, *The Cybernetics Moment: Or Why We Call Our Age the Information Age* (Baltimore: Johns Hopkins University Press, 2015); Leone Montagnini, *Harmonies of Disorder: Norbert Wiener: A Mathematician-Philosopher of Our Time* (Springer, 2017), 231–38.

[96] Brick, *Transcending Capitalism*, 147.

[97] Hammond, *The Science of Synthesis Exploring the Social Implications of General Systems Theory*, 33.

[98] Brick, *Age of Contradiction*, 129.

[99] Ludwig von Bertalanffy, *Nikolaus von Kues* (München: G. Müller, 1928); Gregory Bateson, *Steps to an Ecology of Mind: Collected Essays in Anthropology, Psychiatry, Evolution, and Epistemology*, 1 edition (Chicago: University of Chicago Press, 2000).

[100] Fred Turner, *From Counterculture to Cyberculture: Stewart Brand, the Whole Earth Network, and the Rise of Digital Utopianism* (University of Chicago Press, 2010).

[101] Rainer Paslack, "Self-Organization and New Social Movements," in *Selforganization: Portrait of a Scientific Revolution*, ed. Wolfgang Krohn, Günter Küppers, and Helga Nowotny (Dordrecht: Springer Netherlands, 1990); For an early Luhmannian interpretation of new social movements, see Klaus P. Japp, "Selbsterzeugung oder Fremdverschulden: Thesen zum Rationalismus in den Theorien sozialer Bewegungen," *Soziale Welt* 35, no. 3 (1984): 313–29; For Luhmann's own late account, see Niklas Luhmann, *Protest: Systemtheorie und soziale Bewegungen*, ed. Kai-Uwe Hellmann (Suhrkamp, 1996); For a more recent account, see Christian Fuchs, "The Self-Organization of Social Movements," *Systemic Practice and Action Research* 19, no. 1 (February 2006): 101–37.

In most contexts, the term "function" still elicits a mild shudder from the average humanist. But although European intellectual have long mocked, not without justification, the American cult of technological innovation, positive revaluations of the nature of technology only increased in legitimacy among European thinkers in the 1950's.[102] Just as functionalism died a slow death in North American sociology beginning in the 1970's, it was given a new lease on life across the Atlantic, particularly in West Germany. The import of sociological functionalism, one even more technophilic, in some respects, than its American progenitors, can only be explained in the context of the debates over sociological method in the 1950's.

» 2 Method as the Politics of Reality «
Sociology between Utopia and Order in the Federal Republic of Germany

a. West German Sociology and the Positivism Dispute

West German sociologists would not to be outdone by their American counterparts in making methodological dispute into a proxy for political combat. In contrast to France, Great Britain, and the United States, social scientific functionalism had never found a home in Germany in the first half of the twentieth century, at least not by that name. Certainly, elements of functionalist explanation could be found in Marx, Simmel, and Freud. But, with the partial exceptions of Austrian conservative Othmar Spann's quasi-functionalist account of the corporatist "organic state" and the occasional invocation of the concept among members of Hans Freyer's ultra-conservative "Leipzig School" in the 1920's an 1930's, it never solidified as a unique social scientific method to the degree found among its Western neighbors.[103] From the 1920's through the 1950's most mentions of "functionalism" in German academic publications took place in discussions of jurisprudence (where it was still rare and usually affiliated with legal positivism), and above all, in reviews of the recent work of non-German anthropologists. For obvious reasons, the close historical connection between functionalism, biologism, and Social Darwinism in the work of Spencer, Spann, and Freyer also delayed functionalism's postwar appeal to West German sociologists.

Weber's influence may have also contributed somewhat to functionalism's fragmentary reception in Germany. But this influence was itself ambiguous. Notwithstanding Helmut Schelsky's argument in 1980 that "'German sociology' after 1945 could be depicted as a spiritual war of succession over the heritage of Max Weber,"[104] few sociologists spent much time quarreling over Weber's legacy in the 1950's. Certainly, most German sociologists trained before or during the war were well versed in Weber' work.[105] But it would be political scientists, particularly émigrés like Carl

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[102] David E. Nye, *American Technological Sublime*, Reprint edition (Cambridge, Mass.: The MIT Press, 1996); David E. Nye, *America as Second Creation: Technology and Narratives of New Beginnings* (MIT Press, 2004).

[103] Othmar Spann, *Der wahre staat: verlesungen über abbruch und neubau der gesellschaft, gehalten im sommersemester 1920 an der universität Wien* (Quelle & Meyer, 1921); Barth Landheer, "Othmar Spann's Social Theories," *Journal of Political Economy* 39, no. 2 (1931): 239–48; John Haag, "Othmar Spann and the Quest for a 'True State,'" *Austrian History Yearbook* 12–13 (77 1976): 233–47; J. Glenn Friesen, "Dooyeweerd, Spann, and the Philosophy of Totality," *Philosophia Reformata* 70, no. 1 (2005): 2–22.

[104] Helmut Schelsky, "Zur Entstehungsgeschichte Der Bundesdeutschen Soziologie: Ein Brief an Rainer Lepsius," *Kölner Zeitschrift Für Soziologie Und Sozialpsychologie* 32 (1980): 421; Klingemann, "Zur Rezeption Max Webers durch Helmut Schelsky im Kontext der 'Leipziger Schule der Soziologie,'" 47. But as Klingemann points out on the following page, this statement from 1980 might have been for political reasons: Schelsky never talked about Weber once in his 1959 overview of contemporary German sociology, which will be discussed below.

[105] In fact, his reception continued relatively unperturbed under National Socialism, even after the original Weber School at Heidelberg had become more or less defunct. Klingemann, "Zur Rezeption Max Webers durch Helmut Schelsky im Kontext der 'Leipziger Schule der Soziologie'"; Carsten Klingemann, *Soziologie und Politik: Sozialwissenschaftliches Expertenwissen im Dritten Reich und in der frühen westdeutschen Nachkriegszeit* (Springer-Verlag, 2009).

Friedrich, backed by American financial power and influenced by Parsons' revival of Weber, who were ultimately responsible for reviving Weberian thought in West Germany in the 1950's.[106]

For many German thinkers across the political spectrum, from Weimar to the early Bonn Republic, it was precisely the pessimism of Weber's "disenchantment thesis" that held substantial appeal. As a language of bureaucracy, functionalism often became a metonym for the classical ills of Western modernity, a stand-in for biedermeier utilitarianism, bureaucratic humdrum, industrial society, mass culture, alienation, and the subordination of man to machine through the hegemony of technology. From Carl Schmitt's "Age of Neutralizations" to Husserl's *Crisis of the European Sciences* and Horkheimer and Adorno's *Dialectic of Enlightenment*, the epithet "functionalism" belonged to the "demonism of technology" discussed in Chapter Two. Even before capitalism converted use values into exchange values, modern techno-science had reduced the richness and diversity of reality to nothing more than a desiccated matrix of instrumentalizable possibilities.[107] As a varietal of instrumentalism, functionalism could be criticized as a denial of permanence, substance, values, autonomy, freedom, authenticity, the transcendent, and the "in-itself." It presented the nightmares of modernity cloaked in the disinterested garb of scientific methodology, and reduced all stable identities to the heteronomy of being always only "for another."

Such dark associations certainly lingered into the founding decade of the Bonn Republic. But as sociologists returning from exile contributed to the "Americanization" of the German academy in the 1950's, functionalism and empiricism both began to experience a reversal of fortunes. Émigrés such as René König, who would found the Cologne School of sociology, and younger scholars educated in the United States after the war, like Renate Mayntz, successfully preached the gospel of empiricism as they embarked on their illustrious careers in a reconstructed German academia.[108] By the time it arrived as a discrete research program on the itinerary of social scientific debate in the 1950's, functionalism appeared as empiricism's natural partner.

Although neither König nor any of the younger sociologists officially carried the mantle of Parsonian functionalism, their approaches still struck many of the older German sociologists, including Adorno and Schelsky, as a brand of "functionalist empiricism." König, a fierce opponent of those, like Adorno and Helmuth Plessner, whose philosophical approaches he deemed beyond the pale of authentic sociology, adopted the functionalist method solely as a basis for empirical research. He had been weaned, after all, on a steady diet of Durkheim and Mauss during his 1938 habilitation in exile at the University of Zürich.[109] But he contrasted favorably what he viewed as empirically responsive "sociological theory," like Merton's, to the armchair speculations of the philosophers' "theory of society," which aimed at an abstract conceptual determination of the social

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[106] Part of a broader effort to reconstruct German democracy, Friedrich hoped to create "responsible elites" instilled with democratic and anti-communist values, who could man the helm of the new state bureaucracy. An Americanized Weber, he hoped, could offer the rebuilding nation a bulwark against the ideological fanaticism of the "ethics of conviction," as well as a remedy for Weber's bureaucratic pessimism. Sean A. Forner, *German Intellectuals and the Challenge of Democratic Renewal: Culture and Politics after 1945* (Cambridge: Cambridge University Press, 2014); Udi Greenberg, *The Weimar Century: German Emigres and the Ideological Foundations of the Cold War* (Princeton University Press, 2015).

[107] "The man-made world of things, the human artifice erected by homo faber, becomes a home for mortal men, whose stability will endure and outlast the ever-changing movement of their lives and actions, only insomuch as it transcends both the sheer functionalism of things produced for consumption and the sheer utility of objects produced for use." Arendt, *The Human Condition*, 173.

[108] Renate Mayntz, "Mein Weg zur Soziologie: Rekonstruktion eines kontingenten Karrierpfades," in *Wege zur Soziologie nach 1945: autobiographische Notizen*, ed. Christian Fleck (Opladen: Leske + Budrich, 1996).

[109] René König, "Sketches by a Cosmopolitan German Sociologist," *International Social Science Journal* XXV, no. 1/2 (1973); Stephan Moebius, *René König und die "Kölner Schule": eine soziologiegeschichtliche Annäherung* (Wiesbaden: Springer VS, 2015); Stephan Moebius, *René König: Wegbereiter der bundesrepublikanischen Soziologie.* (Wiesbaden: Springer Fachmedien Wiesbaden, 2015).

totality.[110] In other words, König embraced Parsonian functionalism for the same reason Adorno opposed it: it represented an invitation to empirical sociology rather than a philosophical theory.

Never officially carrying the mantle of "functionalism," the radical conservatives of the Leipzig School can nevertheless claim some responsibility for its postwar legitimation. Outside of the Frankfurt and Cologne Schools, some of the most influential German sociologists came out of Leipzig, having made their names during Weimar and Nazi Germany working at the confluence of sociology and philosophical anthropology. Rehabilitated by the early 1950's despite their ties to the Nazi regime, Hans Freyer, Arnold Gehlen, and particularly their student, Helmut Schelsky became dominant voices in West German social theory in the 1950's, with considerable influence over the future intellectual history of the Federal Republic.[111] Although their use of the language of functions was unsystematic by comparison, some of the Leipzig School's work resembled Anglo-American sociological functionalism.[112] Schelsky, moreover, a student of Gehlen's and former Nazi party member, would become a mentor to Luhmann in the 1960's, approving his habilitation at the University of Münster in 1966 before appointing him to the first chair in sociology at the University of Bielefeld—an institution Schelsky had been instrumental in creating. Despite harboring reservations, Schelsky agreed that American structural-functionalism was tightly bound to empirical practice; and critiques advanced by those like Dahrendorf notwithstanding, the validity of structural-functionalist theory, as "the single explicitly developed sociological theory," remained intact.[113]

Such methodological uneasiness came to a head in a debate that would structure many West German methodological polemics for decades. One of the major narratives of postwar West German social sciences has focused on the so-called "positivism dispute," ostensibly a debate over the possibility of value-free social science between Adorno and Habermas, on the one hand, and Popper and his followers, on the other, which only began in 1961.[114] Marius Strubenhoff has recently pointed out that the positivism dispute in German sociology originated not primarily in a debate over the philosophy of science, fought between the Frankfurt School and the Vienna School of logical positivism in the 1930's, but rather concerned the problem of the relationship of social inquiry to human action and social reform.[115] Usually framed as a dilemma between empirical and theoretical approaches, the most publically and historically celebrated sociological debates of the 1950's actually focused on the question of the relationship of social science, theoretical and empirical, to social praxis. The debate converged on a well-worn meta-theoretical polemic about the meaning and role of utopia in contemporary social thought, a dynamic as old as sociology itself, which eternally wavered between an emphasis on the openness of the world to other possibilities of life, and the insistence on the sober recognition of the unyielding realities of the present.[116]

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[110] René König, "Einleitung," in *Das Fischer-Lexikon: Soziologie*, ed. René König (Fischer-Taschenbuch-Verlag, 1958).
[111] Jerry Z. Muller, *The Other God That Failed: Hans Freyer and the Deradicalization of German Conservatism* (Princeton University Press, 1987).
[112] This affinity might be related to Gehlen interest in American pragmatism in the 1930's. It might also explain why Austrian-American sociologist Peter Berger found Gehlen's work so useful! Peter L. Berger and Hansfried Kellner, "Arnold Gehlen and the Theory of Institutions," *Social Research* 32, no. 1 (1965): 110–15; See also Berger's introduction to the English language tranlation of Arnold Gehlen, *Man in the Age of Technology*, European Perspectives (New York: Columbia University Press, 1980).
[113] Helmut Schelsky, *Ortsbestimmung der deutschen Soziologie*, 1. Aufl. (Düsseldorf: E. Diederich, 1959), 89.
[114] Adorno, *The Positivist Dispute in German Sociology*; Heller, "The Positivism Dispute as a Turning Point in German Post-War Theory"; Dahms, *Positivismusstreit*; Keuth, "The Positivist Dispute in German Sociology."
[115] Though the modality of reality certainly played a role in these debates, as the later elaboration of contingency semantics show, it was never as simple as this opposition. "Kontingenz" for Germans in this period was just not yet a term of art. And when it was invoked, it served to defend the kinds of positions Strubenhoff identifies as necessitarian. Strubenhoff, "The Positivism Dispute in German Sociology, 1954–1970."
[116] Harry Liebersohn, *Fate and Utopia in German Sociology* (Cambridge (Mass.); London: The MIT Press, 1990).

Following the conventions of contemporary academic discourse, Strubenhoff argues that this debate over "fate and utopia" was, in fact, a debate over contingency and necessity, with utopia expressive of reality's contingency, and fate suggesting its recalcitrant necessity.[117]

b. Scientific Method and Social Praxis: Adorno and Schelsky

Theodor W. Adorno's essays on sociological methodology from the early 1950's set the tone for the "positivism dispute" of the 1960's. Before Karl Popper became entangled at Dahrendorf's behest in 1961, however, Adorno found his major opponents among the ranks of professional German sociologists, Helmut Schelsky and Gehlen foremost among them. Adorno's essays, although sometimes attacking the principle of value-freedom, which had almost become a reflex of Critical Theory since its inception, took aim primarily at the self-consciousness of practicing empiricists.

Adorno did not reject empirical method *tout court* so much as the reductive methodological self-understanding of positivist, quantitative empiricism as practiced in the United States. His criticism was directed primarily at the American emphasis on the survey and questionnaire, forms of "opinion research" with which he became familiar during his exile in the United States.[118] His objection more or less amounted to a sociological expansion of Kant's famous dictum that "thoughts without content are empty, intuitions without concepts are blind." Adorno's texts from the 1950's and 60's are littered with critical remarks lambasting "nominalism," a progenitor of modern empiricism, for denying an emphatic concept of truth expressive of essences in favor of a chaotic image of universe composed of atomized facts (although, true to his dialectical propensities, he also wrote more warmly of its resistance to the imperialism of the universal concept).[119] Lacking the guidance of theory, empiricism, Adorno charged, would be unable to pull back the curtain of deceptive appearances propagated by late capitalism. Theory, by contrast, preserved a crucial reference to the social totality transcending the stock of disembedded facts which empiricism alone could only ever accumulate ad infinitum. Without theory, empirical method simply became an extension of ideology by other means.

Empiricism Adorno considered ideological for two reasons: it was complicit in the "domination of nature" and it uncritically reflected the given reality. Both aspects promoted the spread of modern "unfreedom." Echoing the arguments he previously advanced in "The Idea of Natural History" and *The Dialectic of Enlightenment*,[120] Adorno contended that empiricism abets "man's claim to domination," which, in turn, "represses the remembrance of his natural being and thus perpetuates blind natural spontaneity."[121] In other words, the desperate search for human autonomy through the suppression of external nature had become, through a dialectical reversal, the suppression of human nature. At the same time, however, empirical methods accurately reflected the way in which society itself reduces social life to the unreflective immediacy of "second nature." And so, precisely in its moment of ideological mimesis, empiricism nevertheless preserved something of

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[117] Strubenhoff overlooks the fact that none of the participants used the term *Kontingenz* at the time, and, quite the contrary, as this dissertation argues, conservative thinkers, including Luhmann, developed the semantics of *Kontingenz* in the 1960's and 70's to repudiate the traces of utopia and theodicy. Odo Marquard, "Unburdenings: Theodicy Motives in Modern Philosophy," in *In Defense of the Accidental*, trans. Robert M. Wallace (New York: Oxford University Press, 1991).

[118] Theodor W. Adorno, Else Frenkel-Brunswik, and Daniel J. Levinson, *The Authoritarian Personality* (Norton, 1993); Theodor W. Adorno, Henry W. Pickford, and Theodor W. Adorno, "Opinion Delusion Society," in *Critical Models: Interventions and Catchwords*, European Perspectives (New York: Columbia University Press, 2005).

[119] Theodor W. Adorno, *Against Epistemology: A Metacritique*, trans. Willis Domingo, 1 edition (Cambridge ; Malden, MA: Polity, 2013); Theodor W. Adorno, *Philosophische Terminologie: zur Einleitung* (Suhrkamp, 2003); Martin Jay, "Adorno and Musical Nominalism," *New German Critique* 43, no. 3 129 (November 1, 2016): 5–26.

[120] Theodor W. Adorno, "The Idea of Natural History," *Telos* 1984, no. 60 (June 20, 1984): 111–24.

[121] Theodor W. Adorno, "Sociology and Empirical Research," in *The Positivist Dispute in German Sociology*, ed. Theodor W. Adorno (Aldershot: Avebury, 1994), 73.

value for social critique: "The lack of freedom in the methods," Adorno wrote, "serves freedom by attesting wordlessly to the predominant lack of freedom."[122] Empiricism, in ideologically performing unfreedom as a science, became an authentic living witness to society's prevailing unfreedom.

Even the *form* of positivist inquiry reflected the form and function of a debased society. "A social science which is both atomistic, and ascends through classification from the atoms to generalities," Adorno wrote, "is the Medusan mirror to a society which is both atomized and organized according to abstract classificatory concepts, namely those of administration."[123] The abstraction of other "traditional" theories had also proved insufficient to break out of the positivist spell. Parsons' procedure, for example, fared no better than run-of-the-mill empiricism because it ignored the problems that actually mattered to real living and suffering human beings. "Neither upwards nor downwards do sociological levels of abstraction correspond simply to the societal knowledge value," Adorno bemoaned. Such a theory had become little more than a scholastic exercise without real world implications. "For this reason, one can expect so little from their systematic standardization by means of a model such as Parsons' 'functional' model."[124] But left to its own devices, empiricism lacked the reflective capacity to recognize its own position and role in the social totality. Unable to comprehend the latter's "untruth," positivist empiricism could not help but affirm it, thus remaining an instrument of domination. A critical theory of society, by contrast, promised the means to gain reflexive distance from empiricism's naïve mimetic activity, transcend the given, and advance the cause of human emancipation. Sociology would have to subject itself to a reflexive and immanent critique of its own role in society.[125]

In light of the dialectical subtlety of the problem of mimesis, Adorno also rebuked the naïve humanistic critique of positivist science, which claimed that general quantitative laws simply could not capture the virtues of human spontaneity. For Adorno, the problem was precisely that modern society tended to reduce humans to such laws in *reality*, a process in which positivistic and behaviorist sociology had been complicit.[126] The language of functionalism simply consummated this historical process: "Anything that has a function is already spellbound within the functional world. Only a thinking that has no mental sanctuary, no illusion of an inner realm, and that acknowledges its lack of function and power can perhaps catch a glimpse of an order of the possible and the nonexistent, where human beings and things each would be in their rightful place."[127]

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Helmut Schelsky belonged to the same tradition of "technocratic conservatism" of his teachers in the Leipzig School, Arnold Gehlen and Hans Freyer. Former reactionary revolutionaries and ardent supporters of the Nazi regime, supposedly disillusioned by the actual experience of National Socialism, they reinvented and rehabilitated themselves after the war as cautious proponents of the new, Western technological industrial society of the Adenauer era.[128] Originally trained in German

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[122] Adorno, 74.
[123] Adorno, 74.
[124] Adorno, 70.
[125] "Science should be the recognition of the truth and untruth of what the phenomenon under study seeks to be. There is no knowledge which is not, at the same time, critical by virtue of its inherent distinction between true and false. Only a sociology which set the petrified antitheses of its organization in motion would come to its senses." Adorno, 83.
[126] Or as Hannah Arendt put it a few years later, the "trouble with modern theories of behaviorism is not that they are wrong but that they could become true, that they actually are the best possible conceptualization of certain obvious trends in modern society" Arendt, *The Human Condition*, 322.
[127] Theodor W. Adorno, "Why Still Philosophy?," in *Critical Models: Interventions and Catchwords*, ed. Henry W. Pickford (New York: Columbia University Press, 2005), 15.
[128] For the classic account, see Muller, *The Other God That Failed*; Dirk van Laak, "From the Conservative Revolution to Technocratic Conservatism," in *German Ideologies since 1945: Studies in the Political Thought and Culture of the Bonn Republic*, ed.

idealism, having written a dissertation on Fichte, Schelsky too had managed to rehabilitate himself, despite his prior Nazi affiliations.[129] Much of his subsequent success in the 1950's rested on his embrace of American style empirical research, resulting a series of well regarded empirical studies in the 1950's, including work on the postwar German family and an especially influential empirical study of the age cohort that came of age in the ruins of Nazism, *The Skeptical Generation*.[130] These focused studies, however, were also complemented by broader theoretical explorations of the concept of "industrial society, and what he called the "transcendental theory of society."[131]

Schelsky's 1959 *Ortsbestimmung der deutschen Soziologie*, which Dahrendorf praised as "perhaps the most important, for sure the most inspiring sociological publication in Germany since the war," began with reconstruction of the history of German sociology before the 1950's.[132] Until the present, sociology had been unable to congeal into unified, autonomous tradition. Originally an inchoate response to the new realities of the industrial revolution, it had been pursued at the margins of economics and philosophy, deriving its empirical bent from the former and self-reflective proclivities from the later. Although one could still find representatives of each "side"—Rüstow the economist, against Plessner, Adorno and Horkheimer, and Gehlen, the philosophers—the 1950's had witnessed the arrival of a younger generation of self-identified sociologists trained in the discipline, as economics and philosophy both worked to push sociological questions out of their purview. Unfettered by the conditions of contemporary debate in the United States, Schelsky was able to identify these scholars by their commitment to functionalist and quantitative empiricism.

While Dahrendorf and König had warned of German sociology's "dilettantism" and "provincialism" in its initial resistance to American empiricism, Schelsky, despite his embrace of empiricism, also surmised that blindly following the American lead would only reinforce the provincialism of German sociology. Instead, he argued that, pinned between American functionalism and "the congealed dogmatism of the Soviet-Marxist doctrine of ideas," German dilettantism might provide the breathing space for German sociology to develop its own signature "third-way."[133] The structural transformations of postwar society would prove to be especially amenable to this new approach. Like Bell and Aron, Schelsky believed that the central task of contemporary sociological inquiry was to make sense of the transformed meaning of ideology in the industrial society. German sociology in the 1950's was coming of age in a "post-ideological phase," a "phase of exhaustion"[134] marked by "a vacuum of important social determinations of thought."[135] The increasingly classless society he and others envisioned had transformed the social basis of ideology that arose under nineteenth-century capitalism. What appeared as tension between functionalized empiricism and the theoretical, cultural sociology of the 1920's, Schelsky argued, was merely a lingering legacy of the divisive ideological *Weltanschauungen* of Weimar. Any continuation of that polemic therefore could only threaten to corrode social stability. A "third way" sociology would

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Jan-Werner Müller (New York: Palgrave Macmillan, 2003); Hans Freyer, *Die Idee der Freiheit im technischen Zeitalter* (Wiss. Verlag-Ges., 1959); Gehlen, *Man in the Age of Technology*.

[129] Patrick Wöhrle, *Zur Aktualität von Helmut Schelsky* (Wiesbaden: Springer Fachmedien Wiesbaden, 2015).

[130] Helmut Schelsky, *Wandlungen Der Deutschen Familie in Der Gegenwart: Darstellung Und Deutung Einer Empirisch-Soziologischen Tatbestandsaufnahme.* (Stuttgart: F. Enke, 1955); Helmut Schelsky, *Die skeptische generation: eine Soziologie der deutschen Jugend.* (Dusseldorf: E. Diederich, 1957).

[131] Helmut Schelsky, *Schule und Erziehung in der industriellen Gesellschaft* (Würzburg: Werkbund Verlag, 1957).

[132] Ralf Dahrendorf, "Die drei Soziologien. Zu Helmut Schelskys 'Ortsbestimmung der deutschen Soziologie,'" *Kölner Zeitschrift für Soziologie und Sozialpsychologie* 12 (1960): 120; Carl-Göran Heidegren, "Transcendental Theory of Society, Anthropology and the Sociology of Law: Helmut Schelsky: An Almost Forgotten Sociologist," *Acta Sociologica* 40, no. 3 (1997): 280.

[133] Schelsky, *Ortsbestimmung der deutschen Soziologie*, 31.

[134] Schelsky, 48.

[135] Schelsky, 42.

have to move beyond the ideological polarization defining the Cold War, without naively assuming ideology to have become entirely defunct.

Schelsky concurred with Aron and Seymour Lipset that ideologies no longer retained the same function in industrial society as in previous centuries. But he argued that the "orientation" they had provided to individuals had not yet found an adequate substitute. If left unchecked, this loss of plausible ideologies would lead to anomie. So Schelsky suggested that sociology could fulfill this role by taking over the "orientating" function that theological and ideological Weltanschauungen had once provided for pre-industrial societies. In other words, sociology could provide a conflict-mediating, rather than conflict-generating substitute for ideology in a post-ideological society. Much like the arguments of Gehlen and Joachim Ritter's Münster School, Schelsky believed the results of social inquiry could augment those institutional prostheses that made life bearable for the individual in the technological age, "compensations" and "unburdenings" for the loss of meaning incurred by technological disenchantment and secularization.[136] Sociology could help mediate what Schelsky perceived as an emerging consensus in the 1950's, converging on a "neutral background ideology of a non-antagonistic character," composed of the "remnants of Western values"—essentially a stripped down Christian humanism, which was all that "remained after the nihilistic revaluation of all values" in the twentieth century.[137]

Due to an elective affinity between its modus operandi and the needs of society, the empirical method, Schelsky argued, had become a crucial component of sociology's mediating role. Empirical sociology in Germany followed the example of its American missionaries after 1945, but it was not, Schelsky argued, simply an imposition of an occupying power. Its appeal had autochthonous roots in German experience. At the very moment Gadamer was promoting a hermeneutic conception of truth opposed to every attempt to root it in "method,"[138] Schelsky suggested that an endogenous demand existed amongst the citizens of postwar Germany for the opposite. He argued that young German scholars' interest in empirical method in the 1950's reflected a social and "*anti-ideological need for reality and orientation*," a "hunger for reality" that demanded a means of "testing one's own acts and thoughts in form and method."[139] In short, having witnessed and lived through the destructive anti-realism of Nazi ideology and the concomitant "loss of historical self-certainty," Germans, especially those of the skeptical generation, had begun to appreciate the possibility of a technocratic substitute for ideological politics, one rooted in a neutralized, scientific orientation to social reality.[140] Distinguishing between what Carl Menger and Weber had called the "science of law" [*Gesetzeswissenschaft*] and the "science of reality"

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[136] On the Ritter School and its emphasis on the category of "compensation" see, Jürgen Habermas, "Neoconservative Cultural Criticism in the United States and West Germany," in *The New Conservatism: Cultural Criticism and the Historians' Debate*, trans. Shierry Weber Nicholsen, Studies in Contemporary German Social Thought (Cambridge, Mass: MIT Press, 1989); Dirk van Laak, "From the Conservative Revolution to Technocratic Conservatism," in *German Ideologies since 1945: Studies in the Political Thought and Culture of the Bonn Republic*, ed. Jan-Werner Müller, 1st ed (New York: Palgrave Macmillan, 2003); Jerry Z. Muller, "German Neo-Conservatism, Ca. 1968-1985: Hermann Lübbe and Others," in *German Ideologies since 1945: Studies in the Political Thought and Culture of the Bonn Republic*, ed. Jan-Werner Müller, 1st ed (New York: Palgrave Macmillan, 2003); for a more sympathetic account, see Jens Hacke, *Philosophie der Bürgerlichkeit: die liberalkonservative Begründung der Bundesrepublik*, Bürgertum ; n. F, Bd. 3 (Göttingen: Vandenhoeck & Ruprecht, 2006).

[137] Schelsky, *Ortsbestimmung der deutschen Soziologie*, 23.

[138] Hans-Georg Gadamer, *Truth and Method*, trans. Joel Weinsheimer and Donald G. Marshall (London: Bloomsbury Academic, 2004).

[139] Schelsky, *Ortsbestimmung der deutschen Soziologie*, 56.

[140] This theme was previously broached by Schelsky's teacher at Leipzig, Hans Freyer. See Freyer, *Die Idee der Freiheit im technischen Zeitalter*; Muller, *The Other God That Failed.*

[*Wirklichkeitswissenschaft*],[141] that is, normative and empirical science, Freyer and Schelsky concluded that sociology belonged definitively to the latter.[142] It could function, accordingly, as what Schelsky called a "reality control" [*Wirklichkeitskontrolle*] for providing the wider public with non-ideological orientations towards the concrete, thereby stabilizing politics.

For Schelsky, empiricism harbored the best chances of retaining a reference to concrete reality, immunized against the distortions of ideology. Where Adorno saw in empiricism's naïve fealty to an unmediated reality a new form of ideology, Schelsky believed empiricism had a far more sophisticated appreciation of the problem of the 'really' real. Hence Schelsky's defense of empiricism proceeded almost entirely through a lengthy critique of Adorno's essay. His argument amounted to a demonstration that empiricism was not nearly as naïve as Adorno had depicted it, that its recognition of its own artificial and subjective contribution to the mediation of its data was a conscious component of its procedure.[143] These arguments would later lead to his own theory of the modern "institutionalization of reflexivity," which broke with Gehlen's emphasis on the role institutions allegedly played in preempting dangerous subjective reflection. For Schelsky, by contrast, subjective reflexivity had simply become a given, and had to be incorporated into society's institutional structures, rather than denied altogether.[144]

The argument that empiricism was more reflexively sophisticated than Adorno had allowed did not, however, suggest to Schelsky that sociology had become disburdened of the need for theory. Following König, Schelsky distinguished between "sociological theory" and the "theory of society." The former, he thought, was best embodied in the work of the Parsonian school. Unconvinced of its American critics, Schelsky believed Parsonianism represented the only extant sociological theory that could maintain rigorous contact with empirical research and continue to evolve productively along with it. Structural-functionalism therefore offered the best starting place for developing sociological theory in West Germany.[145] In addition to incorporating Dahrendorf's conflict theoretical qualifications, Schelsky also argued that Parsons' theory of action systems might be usefully supplemented by Gehlen's philosophical anthropology of institutions, in the interests of developing a more sociologically productive theory of action.[146]

The "theory of society" was a different matter altogether. Although generally emphasizing, with König, the contributions of sociological theory over the theory of society, Schelsky, originally trained as a philosopher in the tradition of German idealism, nonetheless also agreed with Adorno that the latter had contemporary significance in preserving the question of social totality.[147] But since

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[141] Wolfgang J. Mommsen, Jürgen Osterhammel, and Manfred Schön, eds., "Gustav Schmoller and Max Weber," in *Max Weber and His Contemporaries* (Allen & Unwin, 1987), 60; Friedrich H. Tenbruck, "Zur Genese der Methodologie Max Webers," *Kölner Zeitschrift für Soziologie und Sozialpsychologie* 11 (1959): 573–630.

[142] Hans Freyer, *Soziologie als Wirklichkeitswissenschaft: logische Grundlegung des Systems der Soziologie* (B.G. Teubner, 1930). Freyer was apparently influenced in this regard by Max Weber. Klingemann, "Zur Rezeption Max Webers durch Helmut Schelsky im Kontext der 'Leipziger Schule der Soziologie,'" 41.

[143] Schelsky, *Ortsbestimmung der deutschen Soziologie*, 67–86.

[144] Heidegren, "Transcendental Theory of Society, Anthropology and the Sociology of Law," 281–83.

[145] "The development of a 'general sociology' in Germany appears to me to be necessarily bound, in fact, to a confrontation with the 'structural-functional sociological theory.'" Schelsky, *Ortsbestimmung der deutschen Soziologie*, 90.

[146] "Above all, however, an encounter between the German 'philosophical anthropology' derived from Scheler and the "sociological theory" of Parsons could provide a wider common basis for a theory of action." Schelsky, 91; The most well developed and influential theories of action in West Germany would, ironically, be produced in explicit opposition to Gehlen and Parsons, and in the case of Honneth, from the resources and perspectives of Critical Theory. See, in particular, Axel Honneth and Hans Joas, *Social Action and Human Nature* (Cambridge [Cambridgeshire] ; New York: Cambridge University Press, 1988).

[147] For the classic account of the importance of totality to the tradition of Western Marxism, see Martin Jay, *Marxism and Totality: The Adventures of a Concept from Lukács to Habermas* (University of California Press, 1984).

prior forms of the "theory of society" had been discredited, the only remaining legitimate theory of the whole had to be rooted in the Kantian procedure of transcendental reflection. A transcendental theory of society would have to be a theory of the conditions of possibility of social knowledge, "*to determine the meaning and limits of the social and of sociological thought*."[148] Such a theory, Schelsky argued, could preserve the original Kantian meaning of "critical theory" against its alleged usurpation by the Frankfurt School, which had hijacked the term for the purpose of utopian "socio-ethical" critique. Instead, Schelsky argued that there should be no place in the theory of society for utopia, be it the "utopia of progress," or the conservative "utopia of tradition."[149] Neither could amount to anything more than a comforting deception distracting from the hard truths of life in industrial society.

Naturally, the debate between Adorno and Schelsky over the relationship between theory and social totality also involved competing general interpretations of the nature and reality of that totality. Although this question troubled American theorists in debates about the functional "reference problem," in general, the philosophical problem of totality was of far greater concern to German philosophers, like Adorno and Schelsky, who had been trained in German idealism. The problem of totality gained more concrete contours in the alternative between two opposed alternatives, framed by Adorno's question, "Is contemporary society defined by 'late capitalism' or 'industrial society?'" Adorno broached this topic most succinctly in the introductory lecture at the 1968 German Sociological Conference (incidentally, the venue of one of Luhmann's first synoptic presentations of his developing universal systems theory of society).[150] For Adorno, the concept of industrial society, which Schelsky shared with his American counterparts, amounted to the thesis that the relations and forces of production had become identical, defusing the threat of class conflict by reconciling the opposed interests of the bourgeoisie and proletariat. Although this thesis was similar to Marcuse's argument in *One Dimensional Man*, Adorno considered it little more than a species of ideology, a "necessary illusion" sustaining a society that was, in fact, becoming ever more dysfunctional, even as its diagnosticians praised its remarkable durability.[151] The concept of capitalism, however, was in no way refuted by the "intervention" and "large-scale planning" that defined the industrial society. Although the welfare state may have "rescued" capitalism "from the anarchy of commodity production" in the nineteenth century, under contemporary conditions, "the social fate that befalls the individual is as arbitrary as it ever was."[152] In fact, ideology had only attained new heights with the claim that industrial society was post-ideological. Far from a neutral arbiter of truth, providing a "reality control" to immunize the public against ideologies, as Schelsky claimed, the science and technology of late capitalism represented its epitome.[153]

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[148] Schelsky, *Ortsbestimmung der deutschen Soziologie*, 96.

[149] Schelsky, 99.

[150] Niklas Luhmann, "Soziologie als Theorie sozialer Systeme," in *Soziologische Aufklärung 1: Aufsätze zur Theorie sozialer Systeme* (Opladen: VS Verlag für Sozialwissenschaften, 2009); Theodor W. Adorno, ed., *Spätkapitalismus oder Industriegesellschaft?* (F. Enke, 1969).

[151] Adorno even mentioned Merton in this context: "Because it has become dysfunctional (to apply a concept that Merton used rather differently), the consciousness of the masses has become identical with the system as it has grown increasingly alienated from the rationality of the fixed, identical self, which had still been implicit in the concept of the functional society." Theodor Adorno, "Late Capitalism or Industrial Society? The Fundamental Question of the Present Structure of Society," in *Can One Live After Auschwitz?: A Philosophical Reader*, ed. Rolf Tiedemann, trans. Rodney Livingstone, 1 edition (Stanford, Calif: Stanford University Press, 2003), 124.

[152] Adorno, 123; His definition of ideology thus mirrored his claims about the structure of empiricism, in that its falsity negatively preserved an element of truth: "Ideology, socially necessary semblance, is by this same necessity also the distorted image of the true." Theodor W Adorno, *Aesthetic Theory*, ed. Gretel Adorno and Rolf Tiedemann, trans. Robert Hullot-Kentor (Minneapolis, Minn.: University of Minnesota Press, 2006), 233.

[153] This thesis, which echoed the sentiments of the Weimar "demonism of technology," particularly Schmitt's thesis about neutralization, would become especially influential on the youth movements of the 1960's in both Western Europe and the United States through the work of Marcuse and Habermas (although their takes on technology differed

In summary, both Adorno and Schelsky accused each other of promoting one form or another of ideology, and both thought the concept of utopia had something to do with it: Adorno's was allegedly a holdover from the ideological conflicts of the interwar, and Schelsky's a quietist defense of the dehumanizing, technocratic status quo. Both also surmised that this fact proved that their opponent had provided a distorted representation of the nature of reality. In other words, both agreed that ideology entailed a false ontology with deleterious social consequences. And finally, both followed the well-established sociological paradigm that linked ideology and utopia in terms of their shared relationship to the category of possibility as an element of social reality.

c. Ideology, Social Ontology and Utopian Possibility

In raising the problem of the relationship of ideology to social totality and possibility, both Adorno and Schelsky self-consciously invoked the tradition that had been known since Max Scheler as the "sociology of knowledge."[154] Its aim could be summed up in the Marxist question of the degree to which "social being" determines social thought. Discussions of this tradition tend to emphasize its epistemological character (unsurprising, after all, since knowledge is in its name). For many Marxists, the epistemological question became significant because it was necessary to find criteria by which to distinguish between true and false (ideological) consciousness.[155] If ideological false consciousness was a reflection of distorted social being, then who held the vantage point or provided the criteria with which to adjudicate the difference? How can a member of a society, for example, claim to have true knowledge of the whole of which they are a part? And who has the distance from society to judge whose knowledge of society most adequately represents it? Such logical problems of reflexivity also point to the limits of a purely epistemological conception of the task of the sociology of knowledge. A theory of ideology, after all, requires a theory of "social being." But the theory, at least for Marxism, also had to *belong* to this social being.

Although framing ideology as an ontological problem has roots in the original Platonic distinction between being and appearance, the tradition of "ideology critique" had treated it above all as an epistemological problem of misrecognition, a false appearance concealing true being.[156] But the reflexive problem introduced by the reference to a social totality created new problems, for which traditional epistemology seemed ill equipped. György Lukács, in *History and Class Consciousness*, offered one of the most sophisticated and famous responses to this problem, combining the resources of German idealism and Marxist materialism, replacing Hegel's absolute spirit with the proletariat as that class whose universal position would permit them to retroactively grasp and represent not only their society, but the *history* of society in its totality.[157] The "objective possibility" embodied in the proletariat would enable their cognizance of the whole, in which self-knowledge and self-becoming could be united, overcoming the hiatus between idea and reality.

Although highly influential on the tradition of Western Marxism, in the long run Lukács's postulation of the proletariat as the universal subject of history won few adherents. The interest in

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in important respects). Herbert Marcuse, *One-Dimensional Man: Studies in the Ideology of Advanced Industrial Society*, ed. Douglas Kellner (Boston: Beacon Press, 1991); Habermas engaged with Marcuse's arguments directly in "Technology and Science as 'Ideology.'"

[154] Max Scheler, *Probleme einer Soziologie des Wissens* (München u.a.: Duncker & Humblot, 1924).

[155] Although Marx's attitude towards ideology, a term whose contemporary meaning he decisively shaped, was a good deal more sophisticated than this, foreshadowing in important respects the more politically neutral work of Mannheim. See George Lichtheim, "The Concept of Ideology," *History and Theory* 4, no. 2 (1965): 164–95; Karl Marx, "The German Ideology," in *The Marx-Engels Reader*, ed. Robert C. Tucker, 2nd Revised & enlarged edition (New York: W. W. Norton & Company, 1978).

[156] Lichtheim, "The Concept of Ideology," 183.

[157] Georg Lukács, *History and Class Consciousness: Studies in Marxist Dialectics*, trans. Rodney Livingstone, MIT Press edition (Cambridge, Mass.: The MIT Press, 1972); Lichtheim, "The Concept of Ideology"; Jay, *Marxism and Totality*.

explaining the social origin of ideology nevertheless persisted, and with it, the ontological question of the being of social reality. It was no accident that what is generally considered a founding text of the sociology of knowledge,[158] Karl Mannheim's *Ideology and Utopia* (1929), located an intrinsic connection between ideology and utopia in the relationship immanent to social reality between the actual and the possible. Both profess an incongruent attitude towards the given reality, harboring the potential to "burst the bonds of the existing order."[159] Not only does this tendency force the question of the kind of reality belonging to the unactualized possibilities transcending the given, both ideology and utopia also implicate the elusive nexus between thought and being, reason and social reality, which forms the core of any sociology of knowledge.[160] If utopia and ideology are simultaneously unactualized possibilities as well as actual determinants of social reality, what does this say about the being of social existence?[161]

Mannheim rejected the firm distinction between the ideal and the real upon which the crude variant of ideology critique known as "unmasking" had relied, without falling victim to a species of idealism that reduced all such problems to the immanence of consciousness. Ideology was not inherently false; it was merely a social group's cognitive apparatus for grappling with the social world of their time and place, performing much the same social function as Gehlen and Schelsky's "institutions." But that did not mean that ideology remained indistinguishable from utopia. Although positing a clear analytical distinction, Mannheim had to admit the difficulty of distinguishing between them in practice.[162] Both contained immanent references to other possibilities of social existence transcending given social reality. But whereas utopia presented non-actualized possibilities both transcendent and *hostile* to the present, ideology concealed present reality in the garb of possibilities it alleged were already present; or it claimed, as in the case of religion, that utopian possibilities were so radically transcendent as to be impossible in this world.[163] But who could claim to negotiate this difference? Who had access to the totality on which this distinction rested?

Mannheim's famous, yet ultimately unsatisfactory solution, was to follow Lukács in locating the possibility of objective truth in a social group whose interests did not correspond to any non-generalizable class position: in place of Lukács's proletariat, however, Mannheim highlighted the role of what he called "free floating intellectuals."[164] Although the whole escaped the grasp of any single intellectual, its historically relative truth could be best approached through the "harmonious integration" of the partial perspectives of many intellectuals.[165] Despite accusations of relativism, according to Jay, "a synthetic, holistic impulse was at the root of his attempt to overcome the

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158 With important dissenters: George Lichtheim, for example, claimed Mannheim's theory was only "an epilogue to that of Weber." "The Concept of Ideology," *History and Theory* 4, no. 2 (1965): 186.

159 Karl Mannheim, *Ideology and Utopia: An Introduction to the Sociology of Knowledge*, trans. Louis Wirth and Edward Shils, 1976, 173.

160 For recent essays that highlight the ontological dimension of utopia, see Michael Marder and Patricia Vieira, *Existential Utopia: New Perspectives on Utopian Thought* (Bloomsbury Publishing USA, 2011).

161 Frank Edward Manuel and Fritzie Prigohzy Manuel, *Utopian Thought in the Western World* (Cambridge, Mass: Belknap Press, 1979).

162 Mannheim, *Ideology and Utopia*, 176.

163 "Consequently representatives of a given order have not in all cases taken a hostile attitude towards orientations transcending the existing order. Rather they have always aimed to control those situationally transcendent ideas and interests which are not realizable within the bounds of the present order, and thereby to render them socially impotent, so that such ideas would be confined to a world beyond history and society, where they could not affect the status quo." Mannheim, 173.

164 The most convincing refutation of this thesis can still be found in Pierre Bourdieu, *Homo Academicus*, trans. Peter Collier (Stanford University Press, 1988).

165 Martin Jay, "The Frankfurt School's Critique of Karl Mannheim and the Sociology of Knowledge," in *Permanent Exiles* (New York: Columbia University Press, 1985), 66.

cultural crisis of his time."[166] Consequently, Mannheim, like Lukács, came under fire from Adorno and Horkheimer as well as Karl Popper for advancing a holistic "functionalist" perspective, insofar as he made truth claims depend on their relative position within the social and historical totality.[167] Although Mannheim thought this theory of "relationism," which made ideas depend on their horizontal relations to one another in a "total ideology," overcame relativism, it appeared no less sinister to Marxists of all stripes. For them, what mattered was that his theory denied the possibility of universal truth, and thus the possibility of distinguishing between true and false consciousness.

For some of Mannheim's "Western Marxist" contemporaries, the possibilities projected by a utopian future made visible the remainders of truth in the present. Utopia was a light shining from beyond that assured the possibility that emphatic truth might still exist, even in a society whose structure actively repressed it. In so reviving the symbolism of utopian thought, these philosophically oriented Marxists broke with a mainstream that had generally been leery of utopia, ever since Marx and Engel's repeated repudiations of utopian socialism.[168]

Nowhere was this more evident than in Ernst Bloch's theological Marxism. A friend of Lukács before and during World War I, Bloch later broke with Lukács over their divergent interpretations of the meaning of totality. Bloch chastised his friend for neglecting "the utopian dimension of reality" as an unfinished project, and thus obscuring "the interpenetration of actuality and utopia."[169] His first work, *Spirit of Utopia*, published in 1918, advanced a revolutionary vision of history oriented towards the future, in which hope, animated by the utopian spirit of "not-yet-being" [*noch-Nichtsein*] and preserved by religious tradition, held sway over the present.[170] In certain respects, Bloch's utopianism, part of a widespread embrace of messianic utopianism amongst Jewish thinkers in the early twentieth century, also strongly resembled a secular theodicy.[171]

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[166] Jay, 67.

[167] Jay refers this use of the term "functionalist" to Werner Stark. Jay, 67; Martin Jay, "Ernst Bloch and the Extension of Marxist Holism to Nature," in *Marxism and Totality: The Adventures of a Concept from Lukács to Habermas* (University of California Press, 1984), 179; Mannheim, *Ideology and Utopia*, 17. Lukács, too, aroused these suspicions. Bloch criticized his "passion for order" in an interview late in life. Quoted from Martin Jay, "Ernst Bloch and the Extension of Marxist Holism to Nature," in *Marxism and Totality: The Adventures of a Concept from Lukács to Habermas* (University of California Press, 1984), 179. Here "functionalist thought" referred to psychological theories, which Mannheim considered "mechanistic," because they referred psychic events to the total psychic "mechanism." By this he meant "instrumental," and argued that such forms of thought were useless for authentic decision-making, which necessarily involved judgments "concerning good and evil, concerning the meaning of life and mind." Mannheim, *Ideology and Utopia*, 17.

[168] Karl Marx and Friedrich Engels, "The Communist Manifesto," in *The Marx-Engels Reader*, ed. Robert C. Tucker, 2nd Revised & enlarged edition (New York: W. W. Norton & Company, 1978); Friedrich Engels, "Socialism: Utopian and Scientific," in *The Marx-Engels Reader*, ed. Robert C. Tucker, 2nd Revised & enlarged edition (New York: W. W. Norton & Company, 1978).

[169] Summarizing Bloch's critique, Jay writes that "Although [Lukács] correctly understands that the progressive humanization of reality is a crucial step on the road to this final totality, he underestimates the extent to which that state is still 'not-yet,' still only on the level of possibility. Lukács is this blind to the interpenetration of actuality and utopia, and thus overly concerned with the 'totality of the empirical…'" Jay, "Ernst Bloch and the Extension of Marxist Holism to Nature," 182.

[170] Ernst Bloch, *Geist der Utopie* (München; Leipzig: Duncker & Humblot, 1918); Jürgen Habermas, "Ernst Bloch—A Marxist Romantic," *Salmagundi*, no. 10/11 (1969): 311–25; Jay, "Ernst Bloch and the Extension of Marxist Holism to Nature."

[171] Michael Löwy and Renée B. Larrier, "Jewish Messianism and Libertarian Utopia in Central Europe (1900-1933)," *New German Critique*, no. 20 (1980): 105–15; Anson Rabinbach, "Between Enlightenment and Apocalypse: Benjamin, Bloch and Modern German Jewish Messianism," *New German Critique*, no. 34 (1985): 78–124; Wayne Whitson Floyd, "Transcendence in the Light of Redemption: Adorno and the Legacy of Rosenzweig and Benjamin," *Journal of the American Academy of Religion* 61, no. 3 (1993): 539–51; Peter Eli Gordon, *Rosenzweig and Heidegger: Between Judaism and German Philosophy* (University of California Press, 2003); Jeffrey Bernstein, "Iconoclasm and Messianism in German-Jewish Thought: The History of History, Part 2," ed. Theodor Adorno et al., *Shofar* 26, no. 3 (2008): 147–54; On Bloch's

The Frankfurt School mainstream harbored a famously ambivalent attitude towards utopia.[172] The most overtly utopian among its members, Herbert Marcuse, distinguished between the false utopianism expressed in the functionalist appeal to "integration," which for him, according to Jay, did "not mean true harmony," and the true utopia of an egalitarian future.[173] Marcuse anticipated the possibility of true utopia as a form of existentialist activism in the present, and in the futural ideal of a "true reconciliation" of reason and reality, human essence and society, thought and being, "the true harmony of pacified existence, the end of conflict and contradiction."[174]

Horkheimer and Adorno, by contrast, harbored far more conflicted opinions about utopianism.[175] Criticizing it, on the one hand, for its hasty and undialectical denial of the non-identical, which Adorno viewed the last bastion of resistance against the identitarian logic of late capitalism, on the other hand, they recognized the ideological interest that motivated contemporary critiques of utopia. Taking aim at Freyer and Schelsky's positive, if also resigned embrace of technocratic administration, and echoing Marcuse's distinction between true and false utopias, Adorno charged that, "criticism of utopias has degenerated into the stock inventory of ideology, while the triumph of technical productivity deludes us into believing that utopia, which is irreconcilable with the relations of production, has nevertheless been made real."[176]

But Adorno in no way wanted to dissolve critical theory's intrinsic connection to the utopian element. Like Bloch, he invoked utopia in deploying the modal language of excess of the possible over the actual, emphasizing the need for critical thought to take cognizance of the possibilities that transcend given reality. Theory, he averred, rather than sketching the outlines of the allegedly real, "must dissolve the rigidity of the temporally and spatially fixed object into a field of tension of the possible and the real."[177] Special emphasis was given to that utopian possibility, harbored in the future's "not-yet," which prophesied the end of domination in the form of *contingency*: "Contingency remains," Adorno wrote in his book on Husserl, "the 'Menetekel' of domination."[178] It portended the possible end of capitalism's "context of delusion." Of course such utopian visions were not carried by just any abstract expectation, or even religion, as for Bloch. Art, above all, for Adorno, preserved this utopian promise in its ability to render non-actualized possibility actual in sensuous form: "what does not exist, by appearing, is promised. The constellation of the existing and nonexisting is the utopic figure of art."[179]

"secular theodicy" see Sarah K. Pinnock, *Beyond Theodicy: Jewish and Christian Continental Thinkers Respond to the Holocaust* (State University of New York Press, 2002).

[172] Habermas, "Ernst Bloch—A Marxist Romantic"; Jürgen Habermas, "The New Obscurity: The Crisis of the Welfare State and the Exhaustion of Utopian Energies," in *The New Conservatism: Cultural Criticism and the Historians' Debate*, trans. Shierry Weber Nicholsen (Cambridge, Mass: MIT Press, 1989); Jürgen Habermas, "The Concept of Human Dignity and the Realistic Utopia of Human Rights," *Metaphilosophy* 41, no. 4 (July 1, 2010): 464–80; Max Blechmann, "'Not Yet': Adorno and the Utopia of Conscience," *Cultural Critique* 70 (Fall 2008): 177–98; John Hughes, "Unspeakable Utopia: Art and the Return to the Theological in the Marxism of Adorno and Horkheimer," *CrossCurrents* 53, no. 4 (2004): 475–92.

[173] Martin Jay, "The Metapolitics of Utopianism," in *Permanent Exiles* (New York: Columbia University Press, 1985), 8.

[174] Whether or not he succumbed to Bloch's "identitarian" philosophy in subsuming individuality to the whole is a more complicated matter. But Marcuse's emphasis on identity and wholeness led him to repeatedly downplay the significance of political pluralism. Jay, 9.

[175] Deborah Cook, "Adorno, Ideology and Ideology Critique," *Philosophy & Social Criticism* 27, no. 1 (January 2001): 1–20.

[176] Adorno, "Late Capitalism or Industrial Society? The Fundamental Question of the Present Structure of Society," 118.

[177] Adorno, "Sociology and Empirical Research," 69.

[178] Adorno, *Against Epistemology*, 83.

[179] Adorno, *Aesthetic Theory*, 233. And later, in another famous passage, Adorno accentuates how reality, in becoming more self-identical, loses its immanent possibilities: "Stendhal's dictum of art as the *promesse du bonheur* implies that art does its part for existence by accentuating what in it prefigures utopia. But this utopic element is constantly decreasing, while existence increasingly becomes merely self-equivalent." ibid. 311

From Mannheim to Western Marxism, many found in the utopian constellation a fertile matrix for advancing social thought, one expressive of the modal semantics of possibility as the proper element of an open future. Benjamin, in his messianic interest in the recuperation of missed opportunities through a form of what Habermas called "anamnestic solidarity," was perhaps one of the few to detect open possibilities in the past.[180] But few located the real existence of "other possibilities" anywhere other than the future, or at least in a present oriented towards possible futures, as in Adorno's account of the utopian element of art. Such an emphasis on the horizontal, "presentist," neutral, and objective existence of other possibilities as constituents of social reality, which would ground Luhmann's theory, would have to be sought elsewhere.

[180] Jürgen Habermas, "Historical Consciousness and Post-Traditional Identity: The Federal Republic's Orientation to the West," in *The New Conservatism: Cultural Criticism and the Historians' Debate*, trans. Shierry Weber Nicholsen (Cambridge, Mass: MIT Press, 1989); Although less theological, memory still played a significant revolutionary role for Marcuse. See Martin Jay, "Anamnestic Totalization: Memory in the Thought of Herbert Marcuse"," in *Marxism and Totality: The Adventures of a Concept from Lukács to Habermas* (University of California Press, 1984), 220–40.

4

Splitting Infinities

Functionalist Abstraction and The Critique of Ontology, 1958-1964

"The *reununciation* of intuition is a precondition of modern science; the *loss* of intuition is a necessary consequence of any theory that systematizes itself…"

Hans Blumenberg, *Genesis of the Copernican World*[1]

» 1. A Sketch of the Future, 1958 «

Luhmann's first published text, the short and seemingly modest "The Concept of Function in Administrative Science" paired the Lüneburger's profession as a public administrator with what was at the time still his 'hobby': social theory and phenomenology.[2] At the time of its publication in 1958 Luhmann still worked as a professional bureaucrat, a state jurist for the Lower Saxony Ministry of Culture in Hanover. Another two years would pass before his Harvard sabbatical, and four before his first research posting at the Speyer Academy for Administrative Science.

Luhmann's earliest essay remained firmly within the relatively mundane domain of his erstwhile profession and soon-to-be discipline. Appearing in a major journal of administrative science, *Verwaltungsarchiv*, "The Concept of Function" plead with fellow administrative scientists to address what Luhmann perceived as the most glaring shortcoming of their analytical toolbox: a dearth of social scientific methods. Provincial though it may appear at first glance, the essay already anticipated a surprising number of the themes and problems that would preoccupy Luhmann for the following decade. It described functions as prior to the causal interpretation of action; addressed the role of ideology in bureaucracies and the centrality of decision making to the administrative function; and even sketched out the significance of the category of meaning.

But above all, "The Concept of Function" already intimated the extent of a young scholar's ambitions. Luhmann was not only interested in merely tidying up an extant methodology to better secure its empirical prospects. Beckoned by the theoretical promise of a more capacious and philosophically rigorous gestalt shift in social science, Luhmann hoped a revitalized functionalism might prove well suited for articulating the dynamics of modern, complex social systems. Whereas prior variants of functionalist science found their greatest successes in analyzing isolated pre-modern cultures, Luhmann's functionalism aimed to make legible the social systems of modernity. Such systems, especially bureaucracies, Luhmann argued, already operated and organized themselves according to functionalist modes of reasoning. But this functionalism, mostly implicit in bureaucratic procedure, had yet to receive a philosophically coherent and sociologically productive foundation.

In Luhmann's eyes, the most pressing problems in contemporary social science began with its lack of clarity in using the function concept. German administrative scientists had been especially negligent on this account, having naively deployed the terminology of "purposes, tasks, necessary means, presuppositions of existence" interchangeably with the concept of function. Taking recourse to well-worn biological analogies, their studies presumed that a "function" designated the way that a law or institution served a higher-order social unity. Usually this "unity" equated to some purpose:

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[1] Hans Blumenberg, *The Genesis of the Copernican World*, trans. Robert M. Wallace (Cambridge: The MIT Press, 1985), 47.
[2] Niklas Luhmann, "Der Funktionsbegriff in der Verwaltungswissenschaft," *Verwaltungsarchiv* 49 (1958): 97–105.

either the stated "goal" of an organization (its "ideology") or its objective (latent) need to continue existing. In both cases, the concept of function designated a causal or "instrumental" relationship between a part and the whole to which it belonged, one taken as means, the other as end. The part existed be-*cause* it served the whole, whether this whole was understood to be a concrete entity, such as a formal organization, or its ideological self-representation, taking the form, for example, of a stated purpose or value the organization claims to pursue or serve. But treating a function only in terms of the achievement of a self-declared goal had been mired in the manifold logical problems described in the previous chapter.

In the face of the myriad ambiguities of the concept of function, Luhmann hoped that a sufficiently abstract and capacious concept of function could circumvent these problems and satisfy the needs of social scientists.[3] A good place to start, he thought, would be to return to the precision with which the concept had been used in logic and mathematics. Early twentieth-century analytical philosophy adapted the abstract mathematical concept of function, which originated with Leibniz, for use in symbolic logic. Bertrand Russell and Alfred Whitehead, both highly influenced by Leibniz,[4] recognized that the term's *semantic* ambiguity mirrored its original and productive *logical* ambiguity. According to their *Principia Mathematica*, a function designated a relation between as yet unspecified or undetermined variables that can be filled with different "contents" and varied with respect to one another. Vicious semantic ambiguity could then become virtuous logical indeterminacy. Luhmann referred to this productive indeterminacy as the "regulative ambiguity" of the concept of function. A function operates, accordingly, as a schema for comparison by making visible the possibilities that can occupy one of the variables. For example, in the phrase "x is blue," the terms "sky," "sea," and "violet"[5] are functionally equivalent possible values for x.[6] Here, nothing is expressed about the concrete "being" of any of these entities, rather, only a certain viewpoint or perspective is put forward. A social function is therefore always viewed as replaceable: "in the place of a heart, a pump, in the place of religion, a well groomed social climate."[7]

Luhmann had also gleaned the importance of "substitution" for functionalism from Ernst Cassirer's *Substance and Function*. The functionalist projection of alternative possibilities of action was not only a heuristic tool, but also involved a metaphysical reorientation. There could be no more talk of a self-subsisting stratum of "reality in-itself" outside the projection of functional substitutes or "alternatives." Paralleling Blumenberg's contemporaneous work, Luhmann argued that this historical reorientation from substance to function had the "revolutionary effect" of catalyzing the "destruction of the intuitive everyday world," a world composed of substantial things and their affixed qualities and attributes.

A functionalism that schematized reality in terms of possible substitutions, however, was not only a fact of intellectual history. It could also better account for the dynamic quality of modern institutional stability because it construed institutional structures as elastic and fungible to the core. Using a characteristically gendered example, Luhmann highlighted the unsettling, distanced and inhuman gaze of the functional perspective, all the while callously presenting it with his signature

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[3] Luhmann, 98.

[4] A. H. Johnson, "Leibniz and Whitehead," *Philosophy and Phenomenological Research* 19, no. 3 (1959): 285–305; Bertrand Russell, *The Philosophy of Leibniz* (Routledge, 1997); P. Basile, *Leibniz, Whitehead and the Metaphysics of Causation* (Springer, 2009); Pierfrancesco Basile, "Learning from Leibniz: Whitehead (and Russell) on Mind, Matter and Monads," *British Journal for the History of Philosophy* 23, no. 6 (November 2, 2015): 1128–49.

[5] Luhmann later revisited this example in the 1962 essay, "Truth and Ideology." Niklas Luhmann, "Wahrheit und Ideologie," in *Soziologische Aufklärung 1: Aufsätze zur Theorie sozialer Systeme* (Wiesbaden: VS Verlag für Sozialwissenschaften, 2009).

[6] Luhmann, "Der Funktionsbegriff in der Verwaltungswissenschaft," 99.

[7] Luhmann, 99.

moral indifference: as a concrete human being, "Fräulein A is incomparable. In her function as a stenographer/typist she is, however, replaceable with other girls, to some degree even by a Dictaphone."[8] For Luhmann this worked to the advantage of the firm: if a worker called in sick, it would be easy to find a replacement. (Tellingly, the precarity of the secretary's labor brought to light by the example does not seem to have much troubled the thirty year-old bureaucrat).

Intuitive as these examples may appear at first glance, Luhmann believed their consequences had yet to be fully appreciated by social scientists. Neither the instrumental, nor the causal, nor even Parsons's variant of functional theory, Luhmann submitted, captured functionalism's essentially processual dynamism, so long as they remained mired in an ontological or substantialist metaphysics. A function is not a "causal relation," he argued, "but rather a determinate interpretation" of that relation.[9] Although abjuring the idea of relatively fixed "purposes" inhering in society, functionalist interpretations still needed to project a relatively stable point of unity, a "reference point" with respect to which a function could appear as such. Only by beginning with some abstract yet determinate perspective, he argued, can the theorist reconstruct the space of possible alternatives that could fulfill that function.

Such a referential unity could no longer be legitimately imagined as fixed, as an "essence" of society, or as some anthropologically invariant "need" of its members. As the name might suggest, functional reference or "viewpoints" are always perspectival, relative and provisional. They can assume many forms. As a product of ideology, such as a "value" or "purpose," or some quality of an organization, every viewpoint helps make visible the various functions of administrative behavior.[10] It could be a formally recognized viewpoint of an organization, or a latent one, brought to light only by the sociological observer. Either way, the functional viewpoint opens up several possibilities of action, while also removing others from view.

Luhmann availed himself of the sociological phenomenology of everyday life to illustrate the mechanics of this concept of function. Relying equally on empirical research into "informal organizations" and the social hermeneutics of Alfred Schütz, Luhmann drew attention to the textures of intersubjective "living together" that provided the meaningful horizons of possibilities within which functions would come to operate as a structuring and orienting device. Luhmann even went as far as to call "the functional sense-determination of action" the "decisive principle of bureaucratic organization."[11] Far from eroding or overlooking meaning, as social critics from Husserl to Adorno had implied, functions helped give structure to intersubjective meaning.

Bureaucratic organization in particular offered a paradigm case of this modern functionalization of everyday life and action. Its formalized and procedural approach to problem solving implicitly deployed functional perspectives to interpret and manage the complex world it confronted. Functionalism, in short, was more than a scientific methodology. It was also the historically determinate mode of societal organization coterminous with modernity. "The functionalism of administration," Luhmann claimed, "introduces a new, artificial optics into social life. But the concept of function serves not only as an analytical expedient for researching this restructuring. It designates at the same time a historical event."[12]

Contrary to other major social theorists, Luhmann insisted that the historical advent of functionalized, bureaucratic action represented not the result of some world historical decline, but

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[8] Luhmann, 100.

[9] Luhmann, 100.

[10] For ideology, see Luhmann, "Wahrheit und Ideologie"; for organizations, see Niklas Luhmann, "Zweck — Herrschaft — System: Grundbegriffe und Prämissen Max Webers," *Der Staat* 3, no. 2 (1964): 129–58; and Niklas Luhmann, *Funktionen und Folgen formaler Organisation* (Berlin: Duncker & Humblot, 1964).

[11] Luhmann, "Der Funktionsbegriff in der Verwaltungswissenschaft," 102.

[12] Luhmann, 104.

much more modestly, a morally neutral change in the character of reality underpinning modern social organization. He presumed that this historical argument entailed no normative conclusions about the ethical quality of such a functionalized society. Embodied in formal institutions like public administrations and large industrial firms, the functionalized society had no doubt threatened the "autarky of the individual life and the balance of the social order" by abstracting the concrete individuals into their various social functions.[13] But functionalization did not a priori entail more or less human suffering in the long term—that was a question best left to empirical research. It simply meant that this society would have to confront different kinds of problems.

» 2. "Function and Causality," 1962 «

Shortly after returning from his academic sabbatical at Harvard in 1960-61, and right around the time he began his new career as an administrative scientist at Speyer, Luhmann placed his first major publication in a sociological journal. Despite lacking any formal sociological training outside his brief Harvard stint with Talcott Parsons, Luhmann managed to publish "Function and Causality" in the prestigious *Kölner Zeitschrift für Soziologie*.[14] The text swiftly became a landmark in Luhmann's career, a foundation for the development his sociological systems theory over the following decade.

At its core, "Function and Causality" clarified the arguments Luhmann made 1958 and extended them to more general sociological concerns beyond the purview of administrative science. With it, he intended to make the case for how and why sociology required a more thoroughgoing and self-conscious break with the metaphysical tradition should it ever hope to extricate itself from the multiple impasses in which West German and Anglo-American sociology had been ensnared. At the same time, although "Function and Causality" addressed the more capacious and consequential concept of functional differentiation over the functionalization of everyday reality, it also rhetorically tempered the more grandiose ambitions Luhmann previously aired in 1958. Its central argument may have hinged on highly abstract claims about the history of ontological metaphysics, but "Function and Causality" explicitly downplayed the scope of its claims to reevaluate the meaning of reality by claiming to offer nothing more than a mere "methodology." Instead, Luhmann simply promised better empirical results should its perspective be adopted by working sociologists. To some extent this decision was probably tactical, perhaps merely a case of a young scholar publishing for the first time in a major sociological journal, performing modesty to mollify the potential for a skeptical response from a discipline that, apart from the Frankfurt Institute for Social Research, had become increasingly wary about theory as it embraced recently imported empirical methods. A defense of functionalism as little more than a method with measurable empirical impact was less likely to disturb working sociologists than metaphysical arguments about the nature of social reality. But Luhmann had already committed himself to something more than a mere methodology. He was attempting to lay a new foundation for a functionalist systems theory anchored in a robust concept of possibility derived from a critique of substantialist and causalist metaphysics.[15]

As the title already suggested, Luhmann made it his primary task in "Function and Causality" to reevaluate the logical relationship between two major categories of analysis.[16] When pressed, most

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[13] Luhmann, 105.

[14] Niklas Luhmann, "Funktion und Kausalität," *Kölner Zeitschrift für Soziologie und Sozialpsychologie* 14 (1962): 617–44; Later republished as Niklas Luhmann, "Funktion und Kausalität," in *Soziologische Aufklärung 1: Aufsätze zur Theorie sozialer Systeme* (Wiesbaden: VS Verlag für Sozialwissenschaften, 2009) Subsequent references will be to the latter version. .

[15] See also Michael King and Anton Schütz, "The Ambitious Modesty of Niklas Luhmann," *Journal of Law and Society* 21, no. 3 (1994): 261–87.

[16] Causality had, in fact, been one of Luhmann's most intensively studied phenomena during the 1950's. The first version of his Zettelkasten, which he developed from 1952-1962, contains 458 cards dedicated to the topic of "Kausalität."

prior proponents of functionalism had assumed that the language of functions ultimately resolved into a causal framework. In the face of frequent accusations of harboring crypto-teleological presuppositions, they tended to justify their functionalism in terms of some refurbished causal-mechanical schema, as in the feedback and homeostasis model, even when their empirical work did not presuppose a causal frame of reference. This knee-jerk embrace of causal explanation, Luhmann thought, was far from self-evident.

Against the causal prejudice, Luhmann hypothesized that causality, far from a bedrock category of scientific explanation, ought be considered little more than "a particular case of the application of functional categories."[17] The logical positivists Carl Hempel and Ernest Nagel were not wrong, he admitted, for harboring skepticism towards the logical status of functionalist claims insofar as their critiques aimed at such causal variants of functionalism. But sociologists did not have to acquiesce to the positivists' demand that functionalist arguments must either be reduced to efficient causal claims or relinquish their scientific status. Neither ought they take recourse to one among many variants of those epistemological dualisms, popular since the end of the nineteenth century, which attempted to protect the unique cognitive validity of the "historical," "idiographic," or hermeneutical sciences against their "nomothetic" or "lawlike" cousins. Resulting in the contemporary "two cultures" malaise diagnosed by C.P. Snow, such a dualism could only obstruct inquiry into a social and historical world ever more dependent upon and reconstructed through modern technoscience.

Luhmann thus began the first section of "Function and Causality" by reviewing the prevailing theorists of functionalism, identifying the different ways in which they adhered to a causal interpretation. Despite their differences, Luhmann held that each of these versions of functionalism adhered to the same basic schema, whose model he borrowed from Nagel's analytic "formalization of functionalism."[18] According to this schema, a system holds constant some set of determinate and substantial features—characteristics, qualities, or structures—in the face of a changing environment by deploying internal causes to offset deviations in the system's structure caused by environmental disturbances. The more sophisticated functionalist theories also included an account of how these internal causes are interlinked to form mechanisms that help counter the side effects induced by stability-maintaining mechanism. That is, these systems deployed causes to help manage the "unintended consequences" of the system's other functional achievements. But in every case, the functions were reduced to causal mechanisms; each cause could be correlated with a single, specific effect in an exclusive one-to-one relationship.[19] Establishing such "invariant relationships between determinate causes and determinate effects" in the social world would then enable sociologists to formulate general laws of social organization.

So then the real question was whether the goal of formulating law-like claims about society in such causal terms was even possible. Luhmann agreed with Hempel and Nagel in issuing a resounding "*No*." But for him the stagnation of causal functionalism did not result from a lack of either adequate information or the correct instruments for isolating specific causes and effects. Rather, the problem was that, when applied to sufficiently complex systems, causal explanation simply could not convincingly "exclude other possibilities." Paralleling Blumenberg's claims about the role of "restriction" in the development of the modern sciences, Luhmann argued that this exclusion of "other possibilities" had long served as a latent precondition of the effectiveness of

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[17] Luhmann, "Funktion und Kausalität," 2009, 12.

[18] Ernest Nagel, "A Formalization of Functionalism," in *Logic Without Metaphysics: And Other Essays in the Philosophy of Science* (Free Press, 1957); Francesca Cancian, "Functional Analysis of Change," *American Sociological Review* 25, no. 6 (1960): 818–27.

[19] Luhmann, "Funktion und Kausalität," 2009, 14–15.

modern causal science. It had always been the underlying "principle of every causal explanation that remains in the frame of ontological presuppositions."[20]

In the simple physical systems presupposed by classical mechanics, it had been a relatively straightforward task to exclude alternative possibilities. The controlled experiment artificially restricted the scope of possible values that could be assigned to variables and the range of relationships that could obtain between them. In addition to creating controls, by isolating discrete and quantifiable dependent and independent variables the experimental sciences could plausibly restrict the scope of possible values admitted into a causal-mechanical explanation. By contrast, for those concerned with real world complex systems outside the laboratory, such a technique for eliminating other possibilities was simply unavailable, especially in systems whose principle of organization depended precisely on the *preservation* of other possibilities, of alternative actions. This was why social theorists had so frequently marshaled quasi-teleological organic metaphors since the nineteenth century to explain complex social phenomena, and why the history of biology is replete with episodes of resistance to reductive causal-mechanical explanation.[21] In a complex social system the relationships between any discrete, determinable social phenomenon and any other (the classic example would be the incest taboo and kinship structure) involve so many causal chains—potentially an infinite number, depending on how far back in time or how wide in space one pursues them, or the scale of the causal agents chosen—that any claim on the logical priority of any single relationship begs the question of arbitrariness. In other words, causal functionalism confronted the same problem of multiple infinities that had provoked the early modern development of new "abstractive" techniques, such as Leibniz's calculus. Every attempt at purely causal explanation inevitably falls into an infinite regress, because there is no non-arbitrary "end" to the chain of causes that can account for the existence of any phenomenon.

The first step in overcoming the challenge of the "two infinities," infinite expansiveness and the infinitesimal, was actually quite simple.[22] A theory could avoid infinite regress as soon as it recognized that the functional achievements of a system don't "cause" it to continue to exist "in the sense of ontological security of existence [*Bestandsicherheit*]," a frame of reference Luhmann accused Parsons of sharing with other structural-functionalists like Radcliffe-Brown.[23] Non-causal functional explanation, by contrast, relinquished the demand to account for "grounds," causal or other, for *why* some particular thing "exists," whether that thing is a specific structure or the larger whole it allegedly serves.[24] It attempted something quite different. Invoking Leibnizian language, Luhmann

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[20] Luhmann, 16. This idea also non-trivially resembled Popper's notion of "falsification."

[21] Peter Hanns Reill, *Vitalizing Nature in the Enlightenment* (Berkeley: University of California Press, 2005); Jonathan Sheehan and Dror Wahrman, *Invisible Hands: Self-Organization and the Eighteenth Century* (Chicago: The University of Chicago Press, 2015); Jessica Riskin, *The Restless Clock: A History of the Centuries-Long Argument over What Makes Living Things Tick* (Chicago: University of Chicago Press, 2016); Karl W. Deutsch, "Mechanism, Organism, and Society: Some Models in Natural and Social Science," *Philosophy of Science* 18, no. 3 (1951): 230–52; Hans Blumenberg, "Organic and Mechanical Background Metaphorics," in *Paradigms for a Metaphorology*, trans. Robert L. Savage, 1 edition (Ithaca, N.Y: Cornell University Press, 2010), 62–76.

[22] Karl Löwith, "Man between Infinites," in *Nature, History, and Existentialism, and Other Essays in the Philosophy of History*, ed. Arnold Boyd Levison, Northwestern University Studies in Phenomenology & Existential Philosophy (Evanston, IL: Northwestern University Press, 1966).

[23] Luhmann, "Funktion und Kausalität," 2009, 16.

[24] Cassirer, for example, wrote that, "It follows of itself that we never know things as they are for themselves, but only in their mutual relations: that we can only establish their relations of permanence and change. But this proposition involves none of the skeptical consequences that are connected with it in realistic metaphysics. If we proceed from the existence of absolute elements, then it must indeed appear as a defect of thought, that this existence can never be mastered in its pure and separate form. According to this view, things exist for themselves; but they are only known to us in their interactions, and their interactions influence and obscure the nature of each." Ernst Cassirer, *Substance and Function and Einstein's Theory of Relativity*, trans. W. C. Swabey and M. C. Swabey (Courier Corporation, 2004), 305.

argued that "the function of an action, seen as an effect, is not a sufficient reason that would explain the factical occurrence of this action or allow a prediction."[25] There was simply no need to search for a "sufficient reason" for the "existence" of an action or a state of affairs in the first place. Whereas Kingsley Davis argued that social-scientific functionalism and reductive causal science belonged exclusively to two alternative methodological universes, Luhmann followed the more radical and ambitious course Cassirer had sketched out half a century before with respect to recent scientific discoveries like general relativity.[26] "Function is not a special type of causal relation," he argued, "*rather, the causal relation is a case of the application of functional order*."[27]

As simple as this inversion may appear at first glance, it required a considerably more complex philosophical justification. Beneath functionalists' instinctive embrace of the primacy of efficient causality Luhmann detected a shared and tacit fealty to what he considered an anachronistic background metaphysics. This was a carefully articulated claim. For if Luhmann agreed with the conventional narrative according to which modern science had been constructed upon the anti-teleological reduction of reality to a system of mechanical causes, by what rights could he claim that this causality belonged to an anachronistic metaphysics? The answer to this question is not entirely straightforward, especially since Luhmann's interpretation of it changed subtly over time. The following sections sketch an answer. In short: Luhmann did not argue that causal explanations were altogether moribund, but rather that they would only remain valid only within a strictly delimited domain, whose parameters would only become visible when situated within a more capacious account of reality. This claim involved a familiar story about the history of metaphysics, in which the early modern restriction of scientific explanations to a schema of mechanical causality represented only a partial overcoming of an ancient ontological metaphysics of substance.

» 3. From Causality to Possibility «
Neo-Kantianism, Phenomenology, and the Critique of Ontology

Although there was some precedent for inverting the relationship between function and cause within the functionalist tradition, Luhmann lifted his argument directly from philosophical idealism.[28] In late nineteenth century Germany, philosophers ranging from Nietzsche to the Neo-Kantians had vociferously contested what they viewed as the growing hegemony of crude "scientistic" variants of positivism in the late-nineteenth century, whose reductionist metaphysics had begun to intrude on the "cultural sciences." Although distant from the sophisticated and often anti-materialist positions of positivist philosophers of science such as Gustav Fechner, Hermann von Helmholtz,[29] Ernst Mach and Richard Avenarius, whose works anticipates arguments made by

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[25] Luhmann, "Funktion und Kausalität," 2009, 13.

[26] Cassirer, *Substance and Function and Einstein's Theory of Relativity*; Gregory B. Moynahan, *Ernst Cassirer and the Critical Science of Germany, 1899-1919* (London: Anthem Press, 2013).

[27] Luhmann, "Funktion und Kausalität," 2009, 20.

[28] E.E. Evans-Pritchard's famous 1937 work on Azande witchcraft in Sudan, for example, had taken a neutral stance towards the truth-value of Azande interpretations of causality. Rather than making judgments as to the absolute truth of Azande belief in the causality of witchcraft, this functionalism directed the anthropologist to interpret its role in the totality of their social world. In other words, for Evans-Pritchard, functions were, at least *methodologically*, prior to causes. What the phenomenologist would call the "bracketing" of truth claims also made this perspective appealing to philosophers of science like Kuhn and Feyerabend in the 1950's, who also sought to dislodge the belief in the universality of modern science by historicizing its fundamental presuppositions. Edward Evan Evans-Pritchard, *Witchcraft, Oracles, and Magic Among the Azande* (Clarendon Press, 1991).

[29] As Michael Heidelberger emphasizes, Fechner and Helmholtz both made important although overlooked contributions to the ideas of self-organization and ontological indeterminacy. See Michael Heidelberger, *Nature from*

Luhmann and post-analytics philosophers of science nearly a century later, the popularized variants of this positivism construed the nature of reality in terms of the mechanistic atomism of a 'billiard ball metaphysics.' This amounted to the assumption ultimate reality can and must ultimately be reduced to a set of material objects rebounding off one another in empty space ad infinitum.[30]

As Parsons and H. Stuart Hughes argued long ago, the classical social theories of the turn of the twentieth century emerged in reaction against this reductive positivist materialism.[31] But the academic philosophy out of which this new sociology crystallized was also engaged in a similar project. Hoping to protect the autonomy of the cultural sciences against these positivistic incursions, several groups of philosophers aimed to counter this tendency by reconstructing some form of dualism between the natural and cultural worlds. The so-called "Southwest" neo-Kantian school of Wilhelm Windelband and Heinrich Rickert, for example, struggling to avoid the pitfalls of an absolute ontological hiatus between nature and culture, ventured a distinction rooted in the two sciences' respective logics of inquiry. While Windelband distinguished the procedures of the "nomothetic" from the "idiographic" sciences, Rickert emphasized the irreducible cognitive contribution of "values" in the cultural sciences.[32] Although the influence of Rickert has often been overstated, Weber's methodological attempts to manage the problem of infinity and his emphasis on the "value relation" had been partially inspired by this strain of Kantianism.[33] In the same decades of the late nineteenth century, Wilhelm Dilthey also endeavored to revive the tradition of hermeneutics as the historical sciences' characteristic and privileged mode of access to its object.[34]

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within: Gustav Theodor Fechner and His Psychophysical Worldview (Pittsburgh: University of Pittsburgh Press, 2004); on Helmholtz, see Michael Heidelberger, "Concepts of Self-Organization in the 19th Century," in *Selforganization: Portrait of a Scientific Revolution*, ed. Wolfgang Krohn, Günter Küppers, and Helga Nowotny (Dordrecht: Springer Netherlands, 1990).

[30] The irony here is particularly acute, insofar as several of these "positivists," especially Fechner and Mach, actually advanced some of the first and most sophisticated non-materialist accounts of the physical relationships studied by natural science, positions later echoed in post-analytical and post-positivist philosophies of science. While nonetheless insisting on an ontological monism, Mach, for example, considered his contemporaries' assumption of the primacy of mechanical causality a holdover of an indefensible materialist metaphysics. This was particularly the case among some of the earliest proponents of Darwinism in Germany. Darwinism became a particularly potent vehicle in the late nineteenth century for popularizing this positivist metaphysics, with Ernst Haeckel's cosmological speculations and artistic renderings of evolution leading the way in German speaking lands. The application of Darwinian mechanisms to the study of society, exemplified in the work of Herbert Spencer, proved to be a particularly fecund sociological variant of this metaphysics. Ernst Haeckel, *Natürliche Schöpfungsgeschichte: gemeinverständliche wissenschaftliche Vorträge über die Entwickelungslehre im Allgemeinen und diejenige von Darwin, Goethe und Lamarck im Besonderen ; mit 18 Stammbäumen und 19 systematischen Tabellen* (Reimer, 1875); Robert J. Richards, *The Tragic Sense of Life: Ernst Haeckel and the Struggle over Evolutionary Thought* (University of Chicago Press, 2008).

[31] Talcott Parsons, *The Structure of Social Action*, 2nd ed. (New York: Free Press, 1968); H. Stuart Hughes, *Consciousness and Society*, Revised edition (New Brunswick, N.J: Routledge, 2002).

[32] Frederick C. Beiser, "Weimar Philosophy and the Fate of Neo-Kantianism," in *Weimar Thought: A Contested Legacy*, ed. Peter E. Gordon and John P. McCormick (Princeton: Princeton University Press, 2013); Frederick C. Beiser, *The Genesis of Neo-Kantianism, 1796-1880* (Oxford University Press, 2014).

[33] Guy Oakes, *Weber and Rickert: Concept Formation in the Social Sciences* (Cambridge, Mass. u.a.: The MIT Press, 1990); Fritz K. Ringer, *Max Weber's Methodology: The Unification of the Cultural and Social Sciences* (Cambridge, MA: Harvard University Press, 1997); Stephen P. Turner and Regis A. Factor, *Max Weber and the Dispute over Reason and Value: A Study in Philosophy, Ethics and Politics*, 3 (London: Routledge, 2006).

[34] Herbert Schnädelbach, *Philosophy in Germany 1831-1933* (CUP Archive, 1984); Charles R. Bambach, *The Crisis of Historicism: Neo-Kantian Philosophy of History and Wilhelm Dilthey's Hermeneutics* (Ann Arbor: University of Michigan, 1987); Charles R. Bambach, *Heidegger, Dilthey, and the Crisis of Historicism* (Cornell University Press, 1995); Allan Megill, "Why Was There a Crisis of Historicism?," ed. Charles R. Bambach, *History and Theory* 36, no. 3 (1997): 416–29; Rudolf A. Makkreel and Sebastian Luft, eds., "Wilhelm Dilthey and the Neo-Kantians: On the Conceptual Distinction between Geisteswissenschaften and Kulturwissenschaften," in *Neo-Kantianism in Contemporary Philosophy* (Indiana University Press, 2009), 253–271; Uljana Feest, ed., *Historical Perspectives on Erklären and Verstehen* (Dordrecht: Springer, 2010).

The other major neo-Kantian tradition in Germany, by contrast, the so-called Marburg School of Hermann Cohen, Paul Natorp, and the early Ernst Cassirer, tended to emphasize the problem of the objectivity of mathematics, logic, natural science and the progress of knowledge in general.[35] Instead of partitioning the cultural and natural sciences, they strove to explain the possibility of objective knowledge in an infinite universe. Cohen, for example, used the concept of the infinitesimal to bridge the gap between finite human knowledge and the Kantian "thing-in-itself."[36] Instructively, Cassirer's arguments in *Substance and Function*, which will be discussed in section 4, drew on the work of Mach and Fechner in emphasizing how causal metaphysics derived from a more primordial "functional" relationship to the world. [37]

Finally, Husserl's phenomenology also belonged to this turn of the twentieth-century trend of critiquing scientific epistemology without resorting to an ontological dualism that had long since become threadbare. Transcendental consciousness, which Husserl defined as a structure of intentionality encompassing its objects, existed prior to any split between nature and culture, mind and body, self and other.[38] Husserl thus broke even more decisively than Cassirer from Fechner, Helmholtz and Mach's "psychophysics" as well as the more famous psychological theories they influenced—those of Wilhelm Wundt and William James. He insisted instead on the radical autonomy of transcendental consciousness, irreducible to the structure of the human organism as a contingent product of evolution.[39] This quasi-transcendental argument would prove instrumental for Luhmann's attempt to establish the autonomy of social systems as distinct from psychic systems, even while preserving the psychophysicists' evolutionary account of self-organization.[40]

But Cassirer and Husserl offered Luhmann even more than a mere philosophical scaffolding for demoting mechanical causality from its privileged status: each in their own way provided a kind of metaphysical reorientation, a novel grammar for articulating the ligatures of reality. They thereby contributed to a widespread displacement of the concept of reality towards the category of

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[35] Moynahan, *Ernst Cassirer and the Critical Science of Germany, 1899-1919*; Klaus Christian Kohnke, *The Rise of Neo-Kantianism: German Academic Philosophy between Idealism and Positivism* (Cambridge University Press, 1991); Sebastian Luft, *The Space of Culture: Towards a Neo-Kantian Philosophy of Culture (Cohen, Natorp, and Cassirer)* (OUP Oxford, 2015); Rudolf A. Makkreel and Sebastian Luft, eds., *Neo-Kantianism in Contemporary Philosophy* (Indiana University Press, 2009).

[36] Gregory B. Moynahan, "Hermann Cohen's 'Das Prinzip der Infinitesimalmethode', Ernst Cassirer, and the Politics of Science in Wilhelmine Germany," *Perspectives on Science* 11, no. 1 (March 2003): 35–75.

[37] Like Cassirer's teacher Hermann Cohen, Mach and Fechner also emphasized the power of infinitesimals to describe these functional relationships. Moynahan, *Ernst Cassirer and the Critical Science of Germany, 1899-1919*, 48–50; Michael Heidelberger, "Functional Relations and Causality in Fechner and Mach," *Philosophical Psychology* 23, no. 2 (April 2010): 163–72; Marco Giovanelli, "The Sensation and the Stimulus: Psychophysics and the Prehistory of the Marburg School," *Perspectives on Science* 25, no. 3 (May 2017): 287–323.

[38] Suggestively, both Cassirer's and Husserl's projects would ultimately culminate in distinctive accounts of how the validity of natural science was rooted in a more fundamental layer of cultural being: for Cassirer in the realm of symbolic forms, and for Husserl in the "lifeworld." Ernst Cassirer, *The Philosophy of Symbolic Forms*, 4 vols. (Yale University Press, 1955); Peter E. Gordon, *Continental Divide: Heidegger, Cassirer, Davos* (Cambridge, Mass: Harvard University Press, 2010); Moynahan, *Ernst Cassirer and the Critical Science of Germany, 1899-1919*; Thora Ilin Bayer, *Cassirer's Metaphysics of Symbolic Forms: A Philosophical Commentary* (Yale University Press, 2008); Edward Skidelsky, *Ernst Cassirer: The Last Philosopher of Culture* (Princeton University Press, 2011); Edmund Husserl, *The Crisis of European Sciences and Transcendental Phenomenology: An Introduction to Phenomenological Philosophy*, trans. David Carr (Evanston: Northwestern University Press, 1970).

[39] Martin Kusch, *Psychologism: A Case Study in the Sociology of Philosophical Knowledge*, Philosophical Issues in Science (London ; New York: Routledge, 1995).

[40] John Bednarz, "Functional Method and Phenomenology: The View of Niklas Luhmann," *Human Studies* 7, no. 3/4 (1984): 343–62; Axel T. Paul, "Organizing Husserl On the Phenomenological Foundations of Luhmann's Systems Theory," *Journal of Classical Sociology* 1, no. 3 (November 1, 2001): 371–94; Sven-Eric Knudsen, *Luhmann und Husserl: Systemtheorie im Verhältnis zur Phänomenologie* (Königshausen & Neumann, 2006).

possibility among early twentieth-century philosophers.[41] By turning attention to the reality of possibility, they inverted the traditional modal hierarchy that had long subordinated possibility to actuality. In short, they provided Luhmann with the resources for challenging an ontology that had dominated the tradition of Western metaphysics, up to and including those forms of dualism between nature and culture reinforced by Southwestern neo-Kantianism.

Perhaps in light of the oft-cited limitations of Cassirer and Husserl's cognitivist, subjectivist and epistemological standpoint, Luhmann also appealed to their most famous critic to support his more capacious reworking of the metaphysics of functional systems. Heidegger provided Luhmann with an even more radical philosophical-historical account of the asymmetrical relationship between actuality and possibility buttressing the continuing predominance of mechanical causality. Following a major current of interest in "acausality" in Weimar intellectual life inspired by Nietzsche, and ranging from Oswald Spengler's description of history as "fate" to the birth of quantum physics, much of Heidegger's early work had been preoccupied with a critique of the causal category.[42]

Citing Eugen Fink—an assistant of Husserl's before he drifted towards Heidegger—as a proxy, Luhmann essentially followed Heidegger's argument that the ontological metaphysics underpinning Western thought since Parmenides had been structured by an absolute and disjunctive distinction between being and non-being.[43] The unquestioned dominance of this distinction yielded

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[41] The twentieth century critiques of ontological metaphysics that had first brought to light the pervasiveness and problematic character of the Being/non-Being distinction often appeared in close connection with the problem of *modality*, that domain of logic concerned with the *way* that things exist. The turn of the century witnessed an explosion of philosophical explorations of the modal richness of the fundamental structure of reality, bringing the category of possibility more and more explicitly into the purview of philosophies of reality. Along with Husserl, Heidegger and Cassirer, Ernst Bloch, Hans Vaihinger, Alexius Meinong, Jules Vuillemin, Henri Bergson, and Alfred Whitehead, for example, emphasized, albeit in *very* different ways, the priority of possibility over actuality in any investigation of the nature of reality, without restricting such modal categories to the epistemological domain of transcendental subjectivity, as Kant had done. Hans Vaihinger, *Die Philosophie des als ob: System der theoretischen, praktischen und religiösen Fiktionem der Menschheit auf Grund eines idealistichen Positivismus. Mit einem Anhang über Kant und Nietzsche* (Reuther & Reichard, 1911); Alexius Meinong, *Über Möglichkeit und Wahrscheinlichkeit: Beiträge zur Gegenstandstheorie und Erkenntnistheorie* (J.A. Barth, 1915); Alfred North Whitehead, *Science and the Modern World: Lowell Lectures, 1925* (The Macmillan company, 1925); Alfred North Whitehead, *Process and Reality: An Essay in Cosmology; Gifford Lectures Delivered in the University of Edinburgh During the Session 1927-28* (Macmillan, 1929); Several proponents of the burgeoning tradition of analytic philosophy also became increasingly interested in the field of modality through their investigations into mathematical logic before the middle of the century. For example, C. I. Lewis, "Implication and the Algebra of Logic," *Mind* 21, no. 84 (1912): 522–31; Willard V. Quine, "Notes on Existence and Necessity," *The Journal of Philosophy* 40, no. 5 (1943): 113–27 The discussions in Quine's text also demonstrate some of the intrinsic conceptual connections between the project of modal logic and the principle of the identity of indiscernables.

[42] In what has become famous as the "Forman Thesis," historian Paul Forman first argued in 1971 for the significance of Weimar culture to the development of quantum physics. Paul Forman, "Weimar Culture, Causality, and Quantum Theory 1918-1927: Adaptation by German Physicists and Mathematicians to a Hostile Intellectual Environment," in *Quantum Mechanics: Science and Society*, ed. Peter Galison, Michael Gordin, and David Kaiser (Routledge, 2013); Paul Forman et al., eds., *Weimar Culture and Quantum Mechanics: Selected Papers by Paul Forman and Contemporary Perspectives on the Forman Thesis* (London: Imperial College Press, 2011); In particular, see Cathryn Carson, "Modern or Anti-Modern Science? Weimar Culture, Natural Science and the Heidegger-Heisenberg Exchange," in *Weimar Culture and Quantum Mechanics: Selected Papers by Paul Forman and Contemporary Perspectives on the Forman Thesis*, ed. Paul Forman et al. (London: Imperial College Press, 2011); Cathryn Carson, "Method, Moment, and Crisis in Weimar Science," in *Weimar Thought: A Contested Legacy*, ed. Peter Eli Gordon and John P. McCormick (Princeton: Princeton University Press, 2013), 179–99.

[43] Luhmann's critique of ontology appears, at first glance, Heideggerian in character. It is not clear, however, whether Luhmann actually needed Heidegger for his critique of ontology. Cassirer's own work may have been sufficient. In any case, Luhmann's only major philosophical citations in this text were to Husserl's former student and assistant, Eugen Fink, whose work in the 1950's on the history of ontology combined Husserlian and Heideggerian perspectivesWhatever the case, a glance at his early Zettelkasten proves he was very well read in Heideggerian texts in the 1950's. Eugen Fink, *Zur ontologischen Frühgeschichte von Raum, Zeit, Bewegung* (Den Haag: Nijhoff, 1957); Eugen Fink, *Alles und Nichts: ein Umweg*

a slew of seemingly unresolvable philosophical—and ultimately, cultural—problems concerning the nature of time, change, movement, power, normativity and free will.[44] Fink, whose work Luhmann regularly cited in the early 1960's, explicitly argued in his 1958 book, *Everything and Nothing*, that modal categories like "possibility" had developed to address the paradoxes attendant upon the disjunction between being and non-being.[45] Possibility had long been a thorn in the side of ontological metaphysics because, as something 'not-yet-actual,' it could only appear as a species of non-being with respect to actuality. In Heidegger's terms, the being/non-being disjunction had obscured the more primordial "ontological difference" between "being" and "beings," the ontological and the ontic. By equating being with the actuality or "present-at-hand" quality of existing things, or with the "substance" or "essence" (*ousia*) lying behind them, ontological metaphysics had lost access to the primordial being beyond beings.

Unlike Heidegger, however, Luhmann did not consider ontological metaphysics to represent an ongoing world historical devolution from some more primordial origin, of which modernity was but the most recent consequence. To the contrary, he maintained, like Blumenberg, that modernity was nearly coextensive with the dissolution of ontological metaphysics. Although lingering in anachronistic ideas of causality, ontological metaphysics no longer sufficed to capture the vertiginous dynamism, complexity, and abstractness of the modern world. Recapitulating elements of the famous narratives of the advent of modern science and philosophy of Alexander Koyré and Ernst Cassirer, Luhmann foregrounded how the consciousness of infinity acted as a dissolving agent on the cosmological framework of antiquity.[46] The ancient and medieval doctrine of causality had presumed the existence of a cosmos, a closed totality not yet exposed to the breach of infinity, in which every form of causality could still be led back to some unimpeachable origin, and so could be "understood as a finite relation to the grounds of being [*Seinsgründen*]."[47] But as soon as the blinding light of infinity crept above the horizon of the modern world it chased away the lingering shadows of final grounds. Every causal series now threatened to flee into the infinite, every cause proceeded by an endless series of causes, and every effect producing infinite effects.

Although it originated within the ontological metaphysics of substance, mechanical causality still proved a vital tool for coping with a world unmoored from its ontological interpretation. Mechanical causality furnished modern societies with a schema for reducing the new infinity of world possibilities to a deterministic, uniform, and manipulable plane of "actuality." But while it restricted reality to the "actual" world, the causal schema could not escape the threat of infinite regress—a smaller and more determinate infinity, to be sure, but an infinity it remained nevertheless. Distilling discrete and specific causal relations from the infinite morass requires auxiliary techniques.

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zur Philosophie (Den Haag: Nijhoff, 1959); Ronald Bruzina, *Edmund Husserl and Eugen Fink: Beginnings and Ends in Phenomenology, 1928-1938*, Yale Studies in Hermeneutics (New Haven, CT: Yale University Press, 2004).

[44] Heidegger linked the modal categories to the problem of movement most clearly in *The Metaphysical Foundations of Logic*, trans. Michael Henry Heim (Bloomington: Indiana University Press, 1984); See also Fink, *Zur ontologischen Frühgeschichte von Raum, Zeit, Bewegung*.

[45] Fink, *Alles und Nichts*, 172–249; Martin Heidegger, *Being and Time*, Reprint edition (New York: Harper Perennial Modern Classics, 2008); Martin Heidegger, "What Is Metaphysics?," in *Pathmarks*, ed. William McNeill, trans. David Farrell Krell (Cambridge ; New York: Cambridge University Press, 1998).

[46] Alexandre Koyre, *From the Closed World to the Infinite Universe* (Johns Hopkins University Press, 1957); Ernst Cassirer, *The Individual and the Cosmos in Renaissance Philosophy* (Mineola, N.Y: Dover Publications, 2000); See also Karsten Harries, *Infinity and Perspective* (MIT Press, 2002). Note in this context the difference from Blumenberg's position, which Luhmann would later adopt in most respects: the recognition of infinity acted as the dissolving agent on the cosmos by itself. While Blumenberg still assumed something like this in "Imitation of Nature," his following texts recognized that infinity was a much older attribute, which could only be applied to the universe after nominalist voluntarism (which Blumenberg called "theological absolutism") had done the work of destroying the ancient cosmos ideal.

[47] Luhmann, "Funktion und Kausalität," 2009, 20.

Not only do causal explanations of a particular event "exclude" other possible causal explanations (in the sense that most events have multiple distinguishable causes and causal chains), but even isolating an event and describing it as a discrete cause or effect involves exclusions of other possible ways of identifying causally relevant entities. The causal schema and its underlying metaphysics alone do not suffice to justify the exclusion of these other possibilities.

But many non-probabilistic forms of social scientific explanation nonetheless continued to operate as though causality alone could justify these exclusions. This was because they deployed causality according to the "being/non-being" distinction. As Luhmann phrased it, the "exclusion of the non-being of other possibilities" continued to inform "the principle of every causal explanation that still remains within the bounds of the ontological presuppositions of thought."[48] In its double-negative and tautological definition as "the exclusion of non-being," the concept of being formed the ultimate criterion of truth and reality. Causal explanation remained ontological so long as it served to account for something's self-identical empirical existence or its present-at-hand "actuality" by reference, not to other ways of being or existing, but merely to other empirical existents. Reality [*Wirklichkeit*] thus appeared as the "effect" [*Wirkung*] of a prior existent. Heidegger referred to this as the merely ontic account of how beings [*Seiende*] arise from other beings, which occluded the more originary ontological "grounding" of beings in being [*Sein*].[49] That is, the ontological interpretation of causality restricted reality to finite, necessary, and self-identical presence.

Although causality could no longer provide the metaphysical bedrock upon which to conduct scientific inquiry, it had by no means lost scientific validity altogether. But to make sense of this remaining validity required a shift in perspective. A reconstituted functionalism, Luhmann thought, could yield an optics wide enough to capture how modern societies *use* mechanical causality to interpret and act in the world, and to manage the problems presented by excess possibilities. As a social-scientific tool, however, such functionalist optics also required a coherent account of how scientific concepts and abstractions gain purchase on such a world, that is, they required a post-ontological account of the relationship between concepts and reality.

» 4. Scientific Concept Formation «
Abstraction and Reality in Weber, Parsons, and Cassirer

a. A Brief Prehistory of Abstraction and Concept Formation

Once again, Leibniz played an important if ambiguous role in formulating and validating modern approaches to abstraction that both remained anchored in ontological presuppositions while also pressing beyond them. Although his "principle of reason" [*der Satz vom Grund*], with its ambiguous concept of *Grund*, remained tethered to the ontological framework in which causes were supposed account for an entity's existence, Leibniz had also pioneered new approaches to abstraction to wrestle with the infinity that escaped the confines of ontological metaphysics. His definition of the mathematical concept of function and his infinitesimal calculus provide some of the clearest expressions of this metaphysical reorientation. Anticipating Kant's transcendental turn, Leibniz recognized that causality was only a mode in which reality appears to finite human creatures. It does not express the metaphysical fundamentals of the universe, in which all change and dynamism arise through the spontaneous and self-caused activity of extensionless monads. For Leibniz, space and time were relative, not absolute. Causality thus had at most a "phenomenal" status, a mode of appearance to finite creatures—although this didn't make it any less real. In other words, (and here I

[48] Luhmann, 16.
[49] Heidegger, *Being and Time*; Heidegger, *The Metaphysical Foundations of Logic*.

anticipate a core argument of Part II), human perception, as a consequence of its finitude, was, for Leibniz, a kind of *selective* abstraction. Analogously, the infinitesimal calculus basically amounted to a finite technique for describing an infinite continuum.

The history of abstraction from Plato through medieval scholasticism is too complex to reconstruct adequately here. But a few basic points are in order. It has long been a commonplace to link the fate of abstraction to the medieval realism-nominalism controversy over the reality of universals. Plato had insisted not only that abstract universals like "blue," "chair" and "human" were real, but that as "ideal forms" they were more real than their sensuous exemplars, which we encounter in everyday life. The latter are but instantiations of these eternal and unchanging universal essences. Medieval theologians elaborated this idea and, combining it with a monotheistic metaphysics, generated a hierarchal account of the universe as a "great chain of being."[50] This ontology thus construed the "generality" of the universal in terms much like the taxonomic species-genera model: general were those concepts which, as unmediated expressions of substance or essence (*ousia*), contained all of their individual specifications below them as mere modifications or accidents. This claim was the pivot of the famous medieval debate between realists and nominalists, centering on the question of whether or not general concepts are real, with nominalists arguing, to the contrary, that only the radically individual has reality, while general concepts are nothing but names, a mere *flatus vocis* or "breath of air" given to arrange and make sense of the cacophony of individuals comprising the totality of creation.[51] The nominalistic perspective lingers in our current, everyday, and usually pejorative understanding of abstraction as the desiccated remnants of concrete particulars. Despite their differences, both realists and nominalists assumed the reality of self-identical and unchanging substances, and agreed that, by definition, concepts involve a generality that encompasses particulars.[52]

Traditional histories of philosophy tend to oppose modern "inductive" abstraction, arising from the nominalist position, to its primarily "deductive" Platonic forerunner. Modern epistemology beginning with Francis Bacon (or Ockham's nominalism) derived universal ideas or laws of nature by a process of inductive abstraction from the observation of concrete particulars. Or abstraction became, with Kant, lodged in the transcendental structure of all conscious experience of the world. But in each case, post-nominalist epistemology reduced abstraction to a primarily *mental* process by which general truths could be wrested from nature, concrete particulars or the "thing-in-itself."

It was no accident that twentieth-century social theory would become one of the most prominent intellectual battlegrounds for recovering the specific dignity and reality of universals and abstraction.[53] Even if one had submitted to the nominalist rejection of the reality of concepts in nature, the social world of the human being was not so free of concepts or "meaning"—which is why so many theorists like Rickert and Dilthey at the end of the nineteenth century became so

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[50] The classic statement remains Arthur O. Lovejoy, *The Great Chain of Being: A Study of the History of an Idea* (Cambridge, Mass.: Harvard University Press, 1936).

[51] Although Leibniz still privileged general over contingent truths, according to Cassirer, he assumed the radical position that "the relation between the general and the particular is not one of subsumption" as it had been for scholastic ontology. Ernst Cassirer, *The Philosophy of the Enlightenment*, ed. Peter Gay, trans. Fritz C.A. Koelln and James P. Pettegrove (Princeton (N.J.): Princeton University Press, 2009), 30.

[52] As Cassirer put it, "The conflict between nominalism and realism concerned only the question of the metaphysical reality of concepts, while the question as to their valid logical definition was not considered. The reality of 'universals' was in question. But what was beyond all doubt, as if by tacit agreement of the conflicting parties, was just this: that the concept was to be conceived as a universal genus, as the common element in a series of similar or resembling particular things." Cassirer, *Substance and Function and Einstein's Theory of Relativity*, 9.

[53] Adorno's complex and ambivalent attitude "nominalism," belonged to both contexts. See Martin Jay, "Magical Nominalism: Photography and the Re-enchantment of the World," *Culture, Theory and Critique* 50, no. 2–3 (July 2009): 165–83; Martin Jay, "Adorno and Musical Nominalism," *New German Critique* 43, no. 3 129 (November 1, 2016): 5–26.

preoccupied with developing alternative and privileged modes of access to the "cultural world," including Weber's "*verstehende Soziologie*." But for those who sought to overcome the dualism of culture and nature, such avenues often appeared less than satisfying. The problem of the reality of universals takes on additional level of "reflexive" or circular complexity as soon as the sociological observer attempts to use concepts—abstractions—to capture social phenomena, since the concepts belong to the social totality and can inform and affect the very phenomena in question. In other words, the reality of concepts and abstractions in the world comes to depend on that (social) world's concepts of reality—and vice-versa. As society itself becomes more "abstract," so too does society's interpretations of the "reality."

b. Max Weber and Talcott Parsons

The problem of reality posed by the reflexivity of scientific concepts, which became staples of social constructionism over the last half century, did not trouble the classical European sociologists until at least Mannheim and the Frankfurt School made them the cornerstones of their respective projects in the 1920's and 1930's. Despite his sophistication in formulating novel techniques of concept formation, Weber, for instance, did not spend much time worrying about the variability of concepts of reality, but had fixated instead on the characteristically nineteenth-century quest for scientific objectivity.[54] Prompted by the problem posed by an infinite reality under the influence of neo-Kantianism, and unsatisfied with ostensibly neutral descriptions of society, Weber set out to devise abstractive techniques that could sustain the objectivity of causal explanation in sociology without merely replicating the procedures of the natural sciences in pursuit of a "social physics."[55]

Diverging from Dilthey and the neo-Kantians in aiming to produce objective causal descriptions of social phenomena, Weber nonetheless followed them in assuming that social inquiry required special modes of access to the cultural world of human beings distinct from the epistemology of the natural sciences. He thus laid particular emphasis on the categories of "value relevance" [*Wertbeziehung*] and understanding [*Verstehen*] as uniquely social-scientific means for generating the concepts and abstractions needed to make objective causal explanations of social phenomena. In addition to providing privileged access, these innovations essentially enabled Weber to make an end-run around the problem of reflexivity. The sociologist's understanding secured a privileged access to the world of human action insofar as both observer and observed occupied a rationally reconstructable world of meaning. Hypothetically imputing to the observed actors a minimum of rationality made it possible to categorize their actions into "ideal types" by assessing their degrees of departure from what Weber held to be relatively universal standards of rational behavior. Although distinguishing the ideal types of "purposive-" and "value-rational action," Weber held that all actions involve elements of both. While the purposive rationality of an action guaranteed its intelligibility to an observer, values played a cognitive role in imparting order to the world, helping actors "select" out discrete objects for action by distilling coherent social entities and events from out of the infinite variety of existence in terms of their "relevance" to the actor. Sociological observers could utilize these latent values to isolate and generalize objects for social analysis.[56] This is why Weber considered value relevance the "selective organizing principle of the social sciences."[57] Just as a judge must be able to discount causal factors not legally "relevant" to a

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[54] On the specifically nineteenth-century origins of the modern idea(s) of objectivity, see Lorraine Daston and Peter Galison, *Objectivity* (New York: Zone Books, 2007).

[55] Oakes, *Weber and Rickert*; Ringer, *Max Weber's Methodology: The Unification of the Cultural and Social Sciences*.

[56] "Put another way, an item qualifies as a cultural phenomenon when it falls under a description that defines the item by reference to such a [value-relevant] meaning." Oakes, *Weber and Rickert*, 26.

[57] Parsons, *The Structure of Social Action*, 593.

given case, the sociologist would have to rely on some set of generalized "values" to isolate only the most "relevant" causal chains.[58]

Aside from the obvious problem that, in lacking rational justification, these values remain arbitrary, once the objects of analysis have been isolated with their help it is still no simple matter to determine the "adequacy" of the causal relation imputed to them. Between 1903 and 1907 Weber attempted to address the latter problem with what he called, in contradistinction to the natural scientific practice of subsuming particulars under general laws without remainder, "singular causal analysis." Sensitive to the unique or "idiographic" character of historical events, singular causal analysis consisted of the attempt to offer objective and rational explanations of unrepeatable events through the use of carefully constructed abstractions. To this end, Weber availed himself of a pair of concepts initially formulated in a juridical context by John Stuart Mill and further developed by physiologist Johannes von Kries (a student of Helmholz). "Objective possibility" had offered jurists and social scientists a method for weighing the probability that a specific event could have turned out "otherwise," allowing them to ascertain whether a relationship of "adequate causation" obtained between the event and an actor—a crucial factor in assigning degrees of culpability in a juridical context.[59] "Objective possibilities" were, in fact, the result of a self-consciously *subjective* projection of alternative causal chains by the observer onto reality, so that the observer could then assess the relative weight of a particular cause with regard to the given outcome. "In order to gain insight into the real causal connexions," Weber wrote, "we construct unreal ones. That it is a matter of abstractions is very often not understood…"[60]

Such an appreciation for the methodological power of abstractions found resonance in Parsons' treatise on social action. But for a theorist whose name became virtually synonymous with abstraction, Parsons simply found Weber's reflections too loose, provisional, and experimental to do the hard work of grounding a rigorous social theory. He thus addressed Weber's shortcomings by bringing heightened attention to the interrelations between individual concepts and the total theoretical system to which they belong. For Parsons, Weber came up short on two accounts: his ideal-type "fictionalism" wavered indiscriminately between ontological levels of the ideal and real,[61] severely inhibiting his ability to make non-arbitrary claims about reality;[62] and his ad-hoc pragmatic

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[58] For the most thorough account of Weber's heavy reliance on juridical concepts, see Stephen P. Turner and Regis A. Factor, *Max Weber: The Lawyer as Social Thinker* (London ; New York: Routledge, 1994). Since Weber has long been derided for his insistence on the sociologist's "value-freedom," it is important that we distinguish between value-freedom and value-relevance. For Weber, value-freedom only enters the picture after values have made possible the selective constitution of the objects to be explained (the explanandum). Value-freedom pertains only to the logic of the subsequent analysis.

[59] Max Weber, "The Logic of Historical Explanation," in *Max Weber: Selections in Translation*, ed. W. G. Runciman, trans. E. Matthews (Cambridge ; New York: Cambridge University Press, 1978), 111–34; Stephen P. Turner and Regis A. Factor, "Objective Possibility and Adequate Causation in Weber's Methodological Writings," *The Sociological Review* 29, no. 1 (February 1981): 5–28; Turner and Factor, *Max Weber*; Johannes von Kries, *Über den Begriff der objectiven Möglichkeit und einige Anwendungen desselben* (Leipzig: Reisland, 1888); Michael Heidelberger, "From Mill via von Kries to Max Weber: Causality, Explanation, and Understanding," in *Historical Perspectives on Erklären and Verstehen*, ed. Uljana Feest, Archimedes 21 (Dordrecht: Springer, 2010).

[60] Weber, "The Logic of Historical Explanation," 128; For a recent discussion of counterfactuals in the modern world, see Catherine Gallagher, *Telling It Like It Wasn't: The Counterfactual Imagination in History and Fiction* (University of Chicago Press, 2018).

[61] On Weber's concept of probability, for example, Parsons writes: "This is a consequence of the peculiar kind of abstraction involved in the ideal-type concept. For, on the one hand, it is descriptive in the sense that it states a hypothetical concrete unit or part; on the other hand, it is abstract or unreal in that this unit does not, in its theoretical purity, really exist. The gap between it and the facts is bridged by the concept of probability." Parsons, *The Structure of Social Action*, 630–31.

[62] Stephen P. Savage, *The Theories of Talcott Parsons: The Social Relations of Action* (Palgrave Macmillan UK, 1981), 64.

approach to theorizing had yielded a fragmentary "mosaic" or "atomistic" picture of reality.[63] The two were closely related. Lacking a theory of the social totality and a correspondingly totalized system of concepts, Weber could not formulate general laws spanning multiple ideal types (for example, bourgeois rational capitalism and adventurer's capitalism), severely restricting their explanatory power.[64]

Parsons's solution to the various failures of empirical concept formation, including Weber's ideal type "fictionalism," was to propose what he called "analytical realism:" realist because, unlike Weber's ideal types, it was supposed to be able to "adequately 'grasp' aspects of the objective external world;" analytical, because, unlike naïve empiricist realism, its "concepts correspond, not to concrete phenomena, but to elements in them which are analytically separable from other elements."[65] Parsons emphasized, further, that scientific knowledge required more than mere concepts. Against Weber's "mosaic" picture of reality, Parsons asserted the scientific necessity of a complete logical *system* of concepts. Anticipating Thomas Kuhn's theory of scientific paradigms, Parsons argued that empirical facts only appear and accrue relevance and significance within a total theoretical system.[66] And within this system, concepts had to be assigned to specific and discrete analytical levels to avoid confusion. Parsons thus expended considerable effort distinguishing between the different types of abstraction involved in explaining the behavior and structure of action systems, distinguishing, for instance, "descriptive frames of reference" from "analytical elements" and mere "part" concepts.[67]

The results were mixed. Parsons' approach to concept formation was far more holistic and precise than Weber's. But it was also totalizing, deductive, and extremely hierarchical. What Parsons gained in precision and capaciousness, he lost in comprehensibility, persuasiveness, and flexibility. And like Weber, he never really accounted for *how* concepts are constructed, so much as he created a rigorous classification system for constructing a typology of concepts. Even more, both Parsons and Weber remained visibly "epistemological" in their approach to abstraction and concept formation. The subject/object distinction remained fundamental for their framing pf the relationship between concepts and reality, ideal artifice and material reality. And so while Weber and Parsons may have recognized the constructed and artificial quality of causal explanation, an irreducibly causal understanding of reality nonetheless persisted in their work. They therefore remained committed to the idea that to explain a phenomenon is to offer a causal account of its existence, and thereby failed to escape what Luhmann described as the lingering chokehold of ontological metaphysics on scientific explanation.

c. Cassirer on "Functional Equivalence"

Although the early twentieth century had yielded a slew of philosophical reevaluations of the relationship between concepts and reality, Luhmann's earliest texts on functionalism are particularly indebted in language and argument to *Substance and Function*, Ernst Cassirer's landmark text on the

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[63] Parsons, *The Structure of Social Action*, 748.

[64] Parsons, 634. This was also an advantage Durkheim's functionalism held over Weber's ideal type method.

[65] Parsons, 730; Savage, *The Theories of Talcott Parsons*, 62–90.

[66] "Not only do theoretical propositions stand in logical interrelations to each other so that they may be said to constitute 'systems' but it is in the nature of the case that theoretical systems should attempt to become 'logically closed.' That is, a system starts with a group of interrelated propositions which involve reference to empirical observations within the logical framework of the propositions in question. Each of these propositions has logical implications. The system becomes logically closed when each of the logical implications which can be derived from any one proposition within the system finds its statement in another proposition in the same system." Parsons, *The Structure of Social Action*, 9–10.

[67] Parsons, 28–38; Savage, *The Theories of Talcott Parsons*, 68.

epistemology and metaphysics of natural science, written in the wake of recent breakthroughs like Einstein's Theory of Special Relativity.[68] Like Weber and the Southwestern neo-Kantians, Cassirer also began his inquiry into the reality disclosed by science in terms of the problem real infinity posed to positive knowledge. But he differed from them in his approach to the problem of reality and its relationship to knowledge.

Cassirer dedicated the first and sixth chapters of *Substance and Function* to "concept formation" and "the concept of reality," respectively. In the former he critiqued the traditional account of abstraction as a process of negation, which merely concentrated on specific qualities of concrete entities and made them into general concepts by negating their other properties. Abstraction, he argued, does not simply negate the other properties of the concrete objects to which it applies, in the sense that the color "blue" is an abstraction from the other qualities of the ocean. According to such a negative account of abstraction, "every process of logical generalization" would necessarily "appear an impoverishment of the conceptual content" of the particular.[69] The true process of generalization, by contrast, always retains a reference to possible substitutes or "equivalences" for those negated characteristics. "When we form the concept of metal by connecting gold, silver, copper and lead," Cassirer offered as an example, "we cannot indeed ascribe to the abstract object that thus comes into being the particular color of gold, or the particular luster of silver, or the weight of copper, or the density of lead; however, it would be no less inadmissible if we simply attempted to deny all these particular determinations of it."[70] The concept of metal would have to retain some reference to a range of possible determinations in its very concept, that is, the possibility of various substitutes. In order for it to do that, every determinate yet abstract concept would have to include some reference to a larger totality of concepts to which it related.

Like Parsons', Cassirer's concept of abstraction required reference to a conceptual totality. Unlike the sociologist, however, Cassirer did not understand this totality to be a static, extant, already constructed logically *closed* system of abstract concepts, but a dynamic and *open* totality of further possibilities that are not "actual" but are constructible procedurally according to rules, and which provide, in turn, the framework within which particular objects receive their meaning.[71] This interpretation of conceptual abstraction replaced the traditional reference of universals to fixed constants (such as substances or qualities) with empty "variables" that referred to an encompassing and infinitely extendable "systematic totality" [*Inbegriff*]. While such a systematic totality of concepts must be a presupposition of all knowledge, it does not simply exist "out there," latent and just waiting to be "used," but is always "constructible" according to the rules or functions defined by the concept.[72] This whole therefore cannot be "represented" in a single glance as a sum of existent particulars because there is nothing "beyond" this totality, no point from which to project or observe a "world picture." Instead, it is generated from extant relations, whose existence depends, in

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[68] A text that, incidentally, also influenced Thomas Kuhn. Moynahan, *Ernst Cassirer and the Critical Science of Germany, 1899-1919*.

[69] Cassirer, *Substance and Function and Einstein's Theory of Relativity*, 22.

[70] Cassirer, 21.

[71] "All consciousness demands some sort of connection; and every form of connection presupposes a relation of the individual to an inclusive whole, presupposes the insertion of the individual content into some systematic totality. However primitive and undeveloped this system may be conceived to be, it can never wholly disappear without destroying the individual content itself. An absolutely lawless and unordered something of perceptions is a thought, that cannot even be realized as a methodological fiction; for the mere possibility of consciousness includes at least the conceptual anticipation of a possible order, even though the details may not be made out." Cassirer, 296–97.

[72] "We can abstract from the particular color only if we retain the total series of colors in general as a fundamental schema, with respect to which we consider the concept determined, which we are forming. We represent this systematic totality (*Inbegriff*) when we substitute for the *constant* particular 'marks,' *variable* terms, such as stand for the total group of possible values which the different 'marks' can assume." Cassirer, 22.

a virtuous circle, on the totality they help generate.[73]

To unfold the apparent tautology of such a claim required a de-substantialized conception of reality, so that the circle could appear as a reciprocal relationship of logical "conditions" rather than material causes. This enabled the relationship between concepts and reality to be reassessed in functional terms: "precisely to the extent that the concept is freed of all thing-like being," Cassirer wrote, "its peculiar functional character is revealed." Concepts do not describe or define "fixed properties" but rather consist in "universal rules that permit us to survey a total series of possible determinations at a single glance."[74] They construct both the particular and the systemic whole to which the particular belongs; they expand in each direction.[75] In move reminiscent of Leibniz's philosophy of monads, Cassirer thus argued that every particular contains the universal rule through which the systematic totality to which it belongs can be generated. Hence the concept of "representation" no longer referred for Cassirer to the interior subjective mirroring of external nature, but comprised "an ideal rule, which connects the present, given particular with the whole."[76]

Cassirer thus believed he had been able to use Leibniz to overcome the tension between abstract and concrete in both their positivist and Hegelian-idealist forms. Functional abstraction appeared to him as the embodiment of what Hegel called the concrete universal because it carried within itself the *potential* determinations of everything concrete in the form of the rule of their construction.[77] The finite symbol could produce infinite determinations: "Each particular member of experience possesses a symbolic character, in so far as the law of the whole, which includes the totality of members, is posited and intended in it. The particular appears as a differential, that is not fully determined and intelligible without reference to its integral."[78] Like Leibniz's universe of monads, for Cassirer each particular harbors a possible representation of the entire universe.

Although not always recognized as such, this concept of function had been involved in the logic of scientific discovery since the seventeenth century, and even underlay the modern scientific concept of reality.[79] Whereas the old metaphysics of substance had declared the permanence of a self-identical reality, for Cassirer this metaphysical concept of substance was itself little more than an effect, a condensation of relations generated by the functional logic of concepts. The image of "reality" as objective "stuff" external to human knowledge derives, in other words, from a prior system of logical relations. What is taken as constant, objective reality is but a crystallization of relative variables into provisional constants, providing footholds for surveying the possible values of other variables.[80] "The proposition, that being is a 'product' of thought, thus contains no reference to any physical or metaphysical causal relation, but signifies merely a purely functional relation, a

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[73] The "whole of experience" Cassirer argued, "can never be represented and grounded as a mere sum of particular sense data. The whole gains its form and system only by the assumption of original relations, of which no one can be pointed out as 'tangible' like a given sensuous content […]" Cassirer, 302.

[74] Cassirer, 22–23.

[75] Cassirer, 296–97.

[76] Cassirer, 284.

[77] Cassirer, 20–21.

[78] Cassirer, 300.

[79] Although derived from mathematics, "the field of application of this form of logic is not confined to mathematics alone," Cassirer argued. "On the contrary, it extends over into the field of the knowledge of nature." Further, the mathematical "concept of function constitutes the general schema and model according to which the modern concept of nature has been molded in its progressive historical development." Cassirer, 21.

[80] "[W]e can only reach the category of thing through the category of relation. We do not grasp the relations of absolute things from their interaction, but we concentrate our knowledge of empirical connections into judgments, to which we ascribe objective validity. Therefore the 'relative' properties do not signify in a negative sense that residuum of things, that we are able to grasp, but they are the first and positive ground of the concept of reality." Cassirer, 306.

relation of superordination and subordination in the validity of certain judgments."[81] Put differently, "reality" functions as a limit concept. It is not an 'outside' of knowledge, a self-persisting yet unknowable infinite thing-in-itself radically opposed to the "ideal," a presupposition to which Rickert and Weber still cleaved.[82]

The language of judgment, however, kept Cassirer the Kantian idealist well within the parameters of the philosophy of consciousness, even as he attempted to transcend the radical opposition of appearance and thing-in-itself, subject and object. The ultimate reference point of all of these "functions," for Cassirer, remained the unity of transcendental consciousness. The objectivity of knowledge was a function of its subjective genesis, "the 'spontaneity' of thought […] not the opposite but the necessary correlate of 'objectivity.'"[83] But this posed severe limitations for any project aiming to account for the transsubjective constitution of social knowledge.

To summarize, Cassirer grounded the priority of function over substance in the logic of abstraction, which illuminated how reality was composed not of a totality of fixed substances, but rather of possibilities for substitution. As with Leibniz's concept of function, Cassirer's abstraction depicted "actuality" as a secondary effect of the process of abstraction, a provisionally objective "identity" articulated out of variable relations. Just as the *concept* of real number contains the rule for producing the infinite series of real numbers, functional abstraction basically amounts to the formulation of a rule for constructing the possible concrete particulars that are equivalent to one another with respect to the identity posited by the abstraction. This form of abstraction could enable comparison because it created a "point of view" or "functional reference point" with respect to which the objects of comparison could be objectively constructed.[84]

» 5. Luhmann's Adaptation of Functional Abstraction « Epoché and Substitution

Although "Function and Causality" obviously borrowed substantially from Cassirer, curiously, the neo-Kantian's name appears nowhere in the text or its notes. He was, however, cited in "The Concept of Function"[85] and in Luhmann's first *Zettelkasten*. But for reasons about which I can only speculate, Luhmann opted to deploy the language of phenomenology over Neo-Kantianism. Eugen Fink, once again, offered Luhmann a vocabulary that synthesized Cassirer's substitutive functionalism and Husserl's "phenomenological epoché."[86] Husserl proposed the latter as a kind of hypothetical thought experiment by which the phenomenologist could imaginatively "bracket" out certain features of the actual world as it appeared to consciousness in order to then intuit "eidetic essences," structures of consciousness whose essentiality to thought could be confirmed by their inability to be thought away. Much like Descartes' use of methodical doubt, the phenomenologist could use this procedure in conjunction with "free variation" to delimit the range of concrete existences which could inhabit the empty place bracketed by the epoché.[87] Dropping the Husserlian

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[81] Cassirer, 298.
[82] Moynahan, *Ernst Cassirer and the Critical Science of Germany, 1899-1919*, 146.
[83] Cassirer, *Substance and Function and Einstein's Theory of Relativity*, 317.
[84] Cassirer, 25.
[85] Luhmann, "Der Funktionsbegriff in der Verwaltungswissenschaft," 99.
[86] Commentators have nonetheless preferred to prioritize the influence of Husserl. See, for example, Bednarz, "Functional Method and Phenomenology."
[87] Edmund Husserl, *Ideas: General Introduction to Pure Phenomenology*, ed. Dermot Moran (London ; New York: Routledge, 2012); Paul, "Organizing Husserl On the Phenomenological Foundations of Luhmann's Systems Theory"; Knudsen, *Luhmann und Husserl.*

terminology of the epoché, but retaining its intention, Fink nevertheless argued in *Everything and Nothing* for a substitutive version that also resembled Cassirer's idea of functional equivalence: "Every 'thinking-away' [*Wegdenken*] of individuals is always at the same time a 'thinking-here' [*Herdenken*] of a substitute, however dark and indeterminate this may be."[88] Any attempt to imagine a "lack of existence" in the world only reveals other, prior conceptual presuppositions of what could possibly inhabit its "place," at the very least a reference to the greater systemic totality harboring this apparent "non-Being."[89]

Cassirer and Fink's work may have offered Luhmann philosophical resources with which to enrich Parsons' account of abstraction and functionalism. But their transcendental idealist and ontological arguments still had to be reconstructed to make the functional method sociologically viable. Instead of revealing fixed structures of consciousness, what Husserl had called "eidetic essences," a comparative and substitutive sociological functionalism could reveal the structurally conditioned sets of alternatives of possible actions and experiences available within a historically determinate social system. In conditioning the behavior of a system, these alternatives, although not strictly speaking "actual," are no less "real" as a consequence. The functionalist sociologist could then try to delineate the various possible substitutes for an isolated social phenomenon. Just as transcendental arguments abstain from making causal claims, Luhmann's functions merely designate a "condition of possibility," without which a social system could no longer continue to operate as before. In other words, what had still remained an achievement of consciousness in Cassirer and Husserl would become for Luhmann a property of social systems.[90]

Although the concept of the functional viewpoint at first resembles what Cassirer and Parsons called a "frame of reference," Luhmann emphasized its relationship to Fink's ontological reading of the category of possibility. As he put it, philosophers and theologians working within the ontological doctrine of ideas had "tried to exclude all indeterminacy from the essence of the idea, in order to secure the ideas in their absolute being through the exclusion of other possibilities."[91] Recall that for Plato and many medieval theologians the abstract universal was not only real but also *completely* defined. The being of an idea or essence consisted in its unchanging self-identity, which excludes everything outside of its determinate definition. By contrast, Luhmann's concept of the functional reference point doesn't begin with already "given" and ostensibly "natural" entities, from which it subsequently abstracts and imposes shared qualities. It begins instead with a problem, which, as a reference point, isolates a determinate and problematic cause or effect from the flow of experience, and provisionally ignores or "brackets" other possible causes and effects that may bear

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[88] Fink, *Alles und Nichts*, 219. Although Luhmann's discussion of Being and non-Being clearly derived from Fink, significant differences between the two persist, particularly in their treatment of the reality of causality! For Fink, the unity of the world within which the Being of beings can first take on modes is a non-finite totality of causal relations in time and space. It seems that on this point, Luhmann remains closer to Cassirer's transcendental idealist position than to Eugen Fink's quasi-Heideggerian realism. "Only in the space-time of the world are there the Being-modalities of the actual and the possible." Fink, *Alles und Nichts,* 243.

[89] Interestingly, Weber had also already used the same language of "thinking away" possible causes as a means of evaluating their causal power, although he understood it as a subjective technique, and not as an argument about fundamental ontology. Weber, "The Logic of Historical Explanation."

[90] Which is why Luhmann has often been accused of "appropriating" German Idealism in one form or another. Jürgen Habermas, "Excursus on Luhmann's Appropriation of the Philosophy of the Subject through Systems Theory," in *The Philosophical Discourse of Modernity: Twelve Lectures*, trans. Frederick G. Lawrence (Cambridge, Mass.: The MIT Press, 1990); Hans Ulrich Gumbrecht, "'Alteuropa' und 'Der Soziologe:' Wie verhält sich Niklas Luhmanns Theorie zur philosophischen Tradition?," in *Luhmann Lektüren*, ed. Dirk Baecker, Wolfram Burckhardt, and Niklas Luhmann (Berlin: Kulturverlag Kadmos, 2010).

[91] "An effect gains the ambiguity essential for a functional reference point when one looks away from its cause's side effects." Luhmann, "Funktion und Kausalität," 2009, 18.

some causal relation to the selected phenomena.[92] Such problems, once generalized, make it possible to construct and project provisional "identities" onto the world, relatively stable points of reference from which substitutable "equivalents" can be sought.

» 6. Identity through Non-Identity « "Being-Otherwise," Substitution, and the Functional Reference Point

The revised variants of generalization and functional equivalence helped Luhmann argue that real indeterminacy was not only constitutive of every social structure, but even more consequentially, of the only kind of identity that could ever belong to functional systems. Such a concept of identity entailed a drastic revision of its traditional notion. The stability of the general and abstract, Luhmann argued, consists not in static endurance across time whose original model was the eternity of the Platonic ideas, but in continuous, flexible adaptation, the capacity to harbor a variety of empirical substitutes: "The general is in a characteristic way unspecific and thereby stable insofar as it holds open several empirically distinct possibilities. Its stability is based, as Hippolyte Taine first formulated, not upon specific effects, but upon possibilities of substitution."[93] The identity of the general, in other words, derived neither from some immanent, self-contained essence, nor from an abstraction away from particulars, but from its dynamic ability to preserve a space of indeterminacy in which concrete particulars, despite their other differences, appear as equivalent or substitutable alternatives.[94] The *equivalence* of these particulars with respect to one another does not derive from some ontological similitude, a shared essence, but only 'comes into being' with respect to the

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[92] Luhmann, 21. For any empirically observed cause-effect relationship, the effect of that cause will always only be one among many. If one wanted to think about other possible causes of that one effect, one would have to abstract from all the other side-effects of that one *empirical* cause in order to open a space to compare that cause to other possible causes, because it is only with respect to those other, neutralized side-effects that these functionally equivalent causes can be distinguished from one another (leading back to Leibniz's principle of the indistinguishability of indiscernibles). But for functional analysis one needs to hold the selected effect constant in order to compare possible causes, which come into view only with respect to the selected effect. How well do they achieve it by comparison? Only from that standpoint does one then begin to admit other possible effects of each possible cause. But without holding the effect constant, the other possible "causes" don't even appear. To put it another way: A fully concretized entity or phenomenon is not, as such, comparable. Comparison can only take place through reference to a common denominator. Apples and oranges are comparable as fruit, as sources of fruit sugar and fiber, but not as kinds of citrus for someone looking to garnish a cocktail. Drawing on the late nineteenth-century psychology of Gustav Fechner, Hermann von Hemholz, and William James, Cassirer also highlighted the category of "selection" used here as component of functional-conceptual abstraction, one which will become increasingly important to Luhmann's later thought, as discussed in later chapters. See Cassirer, *Substance and Function*, 292-3.

[93] Luhmann, 15 In a footnote to this statement, Luhmann also admitted the origin of the idea of stability being based upon the possibility of exchange in the old ontological Leibnizian tradition, specifically in the doctrine of the identity of indiscernibles (often called "Leibniz's Law") as developed in Leibniz's protégé Christian Wolff's metaphysics, by which "identity is defined through the possibility of exchange of the identical," that is, if two things were shown to differ in no respects, then they would be necessarily the same thing. Luhmann, 36 fn 18a. ; To which of Taine's ideas or texts he refers Luhmann does not specify in the essay or in its notes. The bibliography for his first Zettelkasten does, however, contain one reference to Taine's De l'intelligence (On Intelligence), which offers an account of the symbolic character of mental processes in terms of the action of substitution. Hippolyte Taine, *On Intelligence* (L. Reeve, 1871).

[94] Luhmann continued to concern himself with this problem in these terms up until the "autopoietic turn" of *Social Systems*, although the problem persisted, only in different terms. See Niklas Luhmann, "Identitätsgebrauch in selbstsubstitutiven Ordnungen, besonders Gesellschaften," in *Identität*, ed. Odo Marquard, Karlheinz Stierle, and Forschungsgruppe Poetik und Hermeneutik, vol. 8, Poetik und Hermeneutik (München: W. Fink, 1979); Niklas Luhmann, *Soziologische Aufklärung 3: Soziales System, Gesellschaft, Organisation* (Wiesbaden: VS Verlag für Sozialwissenschaften, 2009).

generalized functional viewpoint, a kind of multiplicity-within-unity which Cassirer, Husserl, and Fink had designated with the term "*Inbegriff*," often translated as "embodiment" or "instantiation."

The closest thing to a 'bedrock of reality' for the functionalist was therefore not concrete self-identical substance, but the omnipresent possibility of 'being otherwise.' This conception proved better suited to handling the infinite regress that cropped up in every analysis, causal or otherwise, that searched for "ultimate grounds." Just as Leibniz and Cassirer had understood the abstract, infinitesimal concept of function as a solution to the problem of infinity, Luhmann hoped that the generalizing "functional viewpoint" could inoculate theory against the threat of infinite regress:

> Infinite regress is an objection against the assumption of a reason [*Grund*] for the fact that something is and isn't not. Such a reason ought not flee into the infinite, because the infinite excludes nothing. In the frame of a functionalist method, such a justification [*Begründung*] is simply not expected. On the contrary: functionalist method should justify the assertion that something can be or not be, that something is substitutable.[95]

Luhmann's intention was not to banish causal explanation from scientific inquiry tout court, but to reassess its scope and validity.[96] His "functional viewpoint" enabled causal ascriptions to ground the abstraction required by singular causal analysis. Multiple "causes" could be "bundled" together as possible functional equivalents, but only from the perspective of a generalized viewpoint, according to which each "bundle" appears as a possible substitute. These viewpoints—for example, the concept of individual need in Malinowski— "make visible" different "possibilities of satisfaction," enabling comparison, evaluation, and importantly, decision. The generation of comparable possibilities as such is more or less the central achievement of functional analysis. Its epistemological value derives not from its ability to explain the "factical occurrence of determinate functional achievements," because that would be an ontological argument. Rather, it lies in its ability "to indicate other possibilities," which can then be "ordered into a context of comparison and exchange."[97] By assigning determinate values to one variable, that is, making it an independent variable, one can explore the range of values valid for the dependent variable, and vice-versa.[98] Translated into causal terms, this means: either hold the effect constant, and vary the cause, or hold constant the cause and vary its possible effects. In either case, what really matters is that one side or the other has become a "problem" for some system, and functional variation helps bring to light a variety of possible alternative solutions.

Luhmann thus adopted Dahrendorf's pragmatist suggestion that sociology begin with problems rather than descriptions, and used it as a means of generating the reference points he

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95 Luhmann, "Funktion und Kausalität," 2009, 19.

96 "The critique of causal-scientific functionalism is not to be equated with a critique of causality as a category of knowledge. It does not have its elimination as a goal. And it also does not consist in demonstrating an opposition between functional and causal research […] the criticism aims much more at a reversal of the founding relationship of causal and functional relations." Luhmann, 20.

97 Luhmann, 20.

98 This is especially clear in the discussion of the "concept of reality" in Cassirer, *Substance and Function and Einstein's Theory of Relativity* where he discusses using relative constancy as a determinate, independent variable, often viewed as a "thing," from which other systematic relations can be brought into view. "Each particular experience is henceforth determined not only by the material content of the impressions, but through the characteristic function by which some experiences serve as a fixed point of reference for measuring and interpreting others. In this way we produce definite, conceptually distinguished centers, around which the phenomena are ordered and divided." 291.

needed for functional analysis.[99] Simply put, functional reference points and the identities they procure are generalizations of problems. Luhmann argued that causes and effects are not "things" or even empirical hypotheses, but possibilities that only appear in the light cast by problems.[100] The language of problems presented an alternative perspective on the behavior of complex systems. Just as the biologist, for example, cannot take for granted that "an organism continues to exist in fact," the sociologist cannot simply assume that "a system holds itself in equilibrium." Whether it refers to an organism or a society, the very concept of a system already implies the possibility that it might not continue to exist, at least not in the way in had thus far. Functional analysis does not depend on the empirical occurrence of any of these phenomena in an individual case—a specific effect resulting from a cause, a system maintaining itself at a determinate point in time. It is always concerned with the relationship between functionally equivalents.

Although it refers to a system's "problematic existence," the functional reference point does not "explain" the system's existence, in the sense of referring its existence to other prior, substantial and existent things. It does not give an account of *why* it "exists," only that continued existence can become a problem for a given system. To explain why a system exists would be ontological, and would fall into the infinite regress of causal explanation. But if the functionalist were to give up the narrow definition of explanation, according to which one seeks ultimate reasons and causes for the factical, empirical occurrence of determinate entities or processes, the concept of the "problem" can serve instead as another kind of "basis of explanation," and a non-substantial yet "weight-bearing ground" within which causal argument can recover a realm of limited validity.[101]

Answering the problem of functional viewpoint with the concept of problem, however, only displaced the issue to another level. After all, *whose* problems are they anyway? As discussed in the previous chapters, most functionalists, including Blumenberg, had answered this question with recourse to the category of "needs" of one kind or another. Problems, one could say, always refer to unsatisfied needs. But where do needs come from, and what are they made of? And if needs are simply redefined, as Radcliffe-Brown had done, as conditions of survival, who decides what is essential to the survival of the system? What are the limits of survival? Luhmann recognized that this question constituted "the essential difficulty of the functionalist method."[102] Organisms, unlike societies, have more or less obvious empirical identities. They're born and they die, and an individual can only adapt its structure to changing circumstances within very limited parameters. In Luhmann's lapidary yet suggestive phrase, "An ass can't become a snake, even if such a development were necessary for survival."[103] Societies, by contrast, can fundamentally alter their structures without losing their identity, transitioning from an agrarian to an industrial society, from a segmentary to a stratified and to a functionally differentiated society, for example, without approaching the degree of radical discontinuity that would qualify as "death." Lacking such a clear analogy to biological

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[99] Ralf Dahrendorf, "Out of Utopia: Toward a Reorientation of Sociological Analysis," *American Journal of Sociology* 64, no. 2 (1958): 115–27. Luhmann was, in fact, quite familiar with the American pragmatist tradition, having read William James and John Dewey quite extensively in the 1950's, evident in the bibliography contained in his 1952-1962 Zettelkasten.

[100] This move resembled the pragmatist reading of Heidegger's "tool-being," an argument that derives from the classic analysis of the hammer in Division I, section 3 of Martin Heidegger, *Being and Time*, Reprint edition (New York: Harper Perennial Modern Classics, 2008); Hubert L. Dreyfus, *Being-in-the-World: A Commentary on Heidegger's Being and Time, Division I* (Cambridge, Mass: The MIT Press, 1990); for a critique of this reading of tool-being, see Graham Harman, *Tool-Being: Heidegger and the Metaphysics of Objects* (Chicago: Open Court, 2002). The entries on "The Problem as a Category of Research" in the first version of his Zettelkasten (1952-1962) demonstrate that Luhmann relied heavily on Dewey and Heidegger to develop his understanding of this issue.

[101] Luhmann, "Funktion und Kausalität," 2009, 23.

[102] Luhmann, 23.

[103] Luhmann, 23.

mortality, "the problem of the continuation of a system blurs into the indeterminate."[104] But indeterminacy, for Luhmann, tended to indicate another level of structure, not simply its absence.

Although the biological analogy came up short, Luhmann nonetheless implicitly agreed with Adorno that social theory must retain its reference to some notion of social totality, even if—or precisely because—the status and identity of that totality remained indeterminate, and ultimately, paradoxical. Functional viewpoints arise only within an already constituted, functioning order for which elements of reality become a problem. But such a claim still sheds little light on the basic constituents of the identity of the social whole.

Luhmann's initial solution to the reference problem was simple, yet by itself, unsatisfying. The approach to the concept of functions, which referred them to some level of system indeterminacy, would have to be supplemented. The problem of the identity of the system, Luhmann argued, had simply been erroneously posed. The indeterminacy of identity is only troubling to those who remain within the bounds of ontological thinking, because "the opposition of determinism and indeterminism is an ontological problem," which begins to dissipate as soon as its presuppositions are dropped.[105] If the object of functional analysis was no longer a substantial "thing," than what exactly could it 'be'? For Luhmann, the only real answer was: a system. But what, then, is a system anyway?

» 7. The Society Without Qualities « Systems Theory as Counter-Ontology

The functional method and systems theory in Luhmann's body of work are so conceptually interdependent as to appear nearly inseparable. The critique of ontological metaphysics that underlay Luhmann's functionalism found its natural counterpart in the implicit counter-ontology of systems theory. Only a functionalist 'ontology' could rescue the system concept from associations with deterministic and inelastic machines, and only the presumed existence of self-organizing systems in the real world could halt the infinite regress or vicious circularity that had haunted functionalism.[106]

While "Function and Causality" only intimated the significance of the system concept to functionalism, several works from two years later, in 1964, made the deep affinity between the two explicit—none more so than the aptly-titled "Functional Method and Systems Theory." The following summarizes and explains the basic components of Luhmann's earliest articulation of systems theory, highlighting, once again, the centrality of the critique of ontological metaphysics to this project. Systems, for Luhmann, were not merely heuristic devices for imposing conceptual order on "reality." They were just as real as anything else. But to escape a problematic ontological metaphysics, the "being" of systems had to be reimagined in the most rarefied and abstract of terms.

a. Wholes, Parts, and Metaphors of Order

The first step was to clarify how systems had traditionally been characterized. Virtually every historical definition presupposed that all systems share the same underlying architecture: a system is

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[104] Luhmann, 23.

[105] Luhmann, 34.

[106] On the problem of the "reality" of Luhmann's systems, see Armin Nassehi, "Wie wirklich sind Systeme? Zum ontologischen Status von Luhmanns Theorie selbstreferentieller Systeme," in *Kritik der Theorie sozialer Systeme: Auseinandersetzungen mit Luhmanns Hauptwerk*, ed. Werner Krawietz and Michael Welker (Frankfurt am Main: Suhrkamp, 1992); Armin Nassehi, "What Exists between Realism and Constructivism?," *Constructivist Foundations* 8, no. 1 (November 2012): 14–15.

a *whole* composed, in one way or another, out of *parts*.[107] Opinions differed on the nature of this relationship, but the idea that systems are constructed out of wholes and parts was a given. Unfortunately, this "whole/part schema," Luhmann contended, was just another product of the very same Being/non-Being metaphysics that continued to plague causal explanation. And it came with its own set of paradoxes, familiar in stock phrases like "the whole is more than the sum of its parts."[108] Of what does this "more" consist, and where does it come from? Do parts and wholes have different kinds of "being?" At what point does a mere aggregate become an identifiable totality?[109]

The temptation to appeal to mechanical and organic metaphors to unravel these questions testified to the difficulties experienced in every attempt to offer a formal description of a system. "Modern systems theory has two antecedents," Luhmann suggested: "the concept of the organism and the concept of the machine." As much metaphors as concepts, both terms had "grown out of the ontological idea of systems."[110] To speak with Blumenberg, we might say that the "background metaphorics" of mechanism and organism were but two modalities of this fundamental conceptual presupposition of Western thinking about systems, absolute metaphors that functioned by concealing the logical paradoxes inevitably generated by the ontological approach to representing systems as wholes composed of parts.[111]

For at least two and a half millennia, Western thinkers have repeatedly turned to the background metaphorics of the mechanical and the organic to account for the apparently purposive organization of complex entities into what are often called systems. Both machine and organism metaphors have long participated in the semantics of purposiveness, at least since Aristotle, and have been regularly evoked in discussions of automata for centuries. They offered parallel images to help render intelligible the apparently cooperative and harmonious behavior of non-conscious parts in serving the purpose of the whole.

The modern history of the semantics of functions and systems has oscillated interminably between the two metaphors. Descartes was only one of the first to try to reduce the organic to the mechanical, aided by the recent flourishing of physical automata in the seventeenth century.[112] Although contemporary usage has tended to imagine them as eternal antagonists, suggesting a distinct contrast between the 'grown and the made,' this is relatively recent development, beginning only in the seventeenth century. Plato, for example, had used both "generative and constructive metaphors" indiscriminately, using the one to supplement the other in the same argument with no sense of contradiction.[113] Both figures encompassed the belief that the essence of a whole is best

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[107] Adorno too recognized that the systems character of the social totality precluded its mapping in terms of parts and wholes. "Society has more in common with the system than with the organism," he wrote. "An empirical research devoid of theory which gets by with mere hypotheses is blind to society as a system, its authentic object, since its object does not coincide with the sum of all the parts." Theodor W. Adorno, "Sociology and Empirical Research," in *The Positivist Dispute in German Sociology*, ed. Theodor W. Adorno (Aldershot: Avebury, 1994), 81.

[108] For example, Aristotle wrote that, "it is because it is whole entities that are more intelligible to the senses, anything general is a kind of whole, in the sense that it includes a number of things which we could call its parts." Aristotle, *Physics*, ed. David Bostock, trans. Robin Waterfield (Oxford: Oxford University Press, 2008), 9.

[109] For reflections on the closely related concept of totality in another intellectual tradition, see Martin Jay, *Marxism and Totality: The Adventures of a Concept from Lukács to Habermas* (University of California Press, 1984).

[110] Niklas Luhmann, "Funktionale Methode und Systemtheorie," in *Soziologische Aufklärung 1: Aufsätze zur Theorie sozialer Systeme* (Wiesbaden: VS Verlag für Sozialwissenschaften, 2009), 49.

[111] Blumenberg, "Organic and Mechanical Background Metaphorics."

[112] Jessica Riskin, ed., *Genesis Redux: Essays in the History and Philosophy of Artificial Life*, 1 edition (Chicago: University Of Chicago Press, 2007); David Bates, "Cartesian Robotics," *Representations* 124, no. 1 (November 2013): 43–68, https://doi.org/10.1525/rep.2013.124.1.43.

[113] Hans Blumenberg, *Paradigms for a Metaphorology*, trans. Robert L. Savage (Ithaca, N.Y: Cornell University Press, 2010), 64.

captured as the fulfillment of a purpose, in which the transformation of potentiality into actuality is figured as kind of natural *completion* or *perfection*.[114]

Although mechanical background metaphorics stretch back thousands of years, from *deus ex machina* of Greek theater, and Lucretius's resonant image of the *machina mundi*, not until the clockwork metaphor of eighteenth-century Deism, "where it designates the automatic 'functioning', guaranteed by its immanent perfection, of a world that has no need of divine intervention," did the modern sense of mechanism finally crystalize.[115] The relationship of the concept of mechanism to the concept of "perfection," although prefigured in sources from antiquity, only became fully manifest in Christian theology as a consequence of the necessity of emphasizing the perfection of God's creation, for which the image of mechanism "testifies far more directly to its maker" than the organic—all the better to preserve God's transcendence.[116] For Blumenberg, the clear opposition of the two background metaphorics, mechanical and organic, could only take root in the modern age, when the idea of the "creative being" became untethered from nature, when artifice was no longer viewed as a pale, imitative derivative of a nature rendered in generative, organic terms.[117]

Similar philosophical concerns and lineages, in fact, influenced Anglo-American approaches to biological and social systems thinking in the twentieth century. The later work of British philosopher Alfred North Whitehead became a consistent point of reference for many in the movement. A logician and mathematician who co-wrote the *Principia Mathematica* with Bertrand Russell, he later devoted his work to metaphysical questions after he moved to the United States in 1924. A grand cosmological synthesis that hoped to overcome classical philosophical dualisms, including the organic and mechanical, his major work of what he called "process philosophy," *Process and Reality* emphasized the fundamental structure of the world as consisting in "events" rather than substances.[118] And perhaps no other early modern philosopher had such an uninterrupted influence on Whitehead, from his work on logic to his process metaphysics, as Leibniz.[119] Was it an accident, then, that Whitehead directly inspired the work of many systems theorists and cyberneticists, such as James Grier Miller, on the one hand, as well as a theological movement ("process theology") that focused intensively on the question of theodicy, on the other?[120]

Both mechanical and organic metaphors presupposed that systems are fundamentally a "coordination [*Zusammenordnung*] of parts to a whole: out of the inner order of parts emerges the whole, thanks to which this order is something other than the mere sum of the parts."[121] But within the framework of ontological thought, this concept had regularly gotten entangled in paradox. If

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[114] Hans Blumenberg, "Terra Incognita and 'Incomplete Universe' as Metaphors of the Modern Relationship to the World," in *Paradigms for a Metaphorology*, trans. Robert L. Savage (Ithaca, N.Y: Cornell University Press, 2010), 52–61.
[115] Blumenberg, *Paradigms for a Metaphorology*, 64.
[116] Blumenberg, 66; The notion of perfection was a central postulate of Leibniz's metaphysics, upon which his notion of the "pre-established harmony," and the concept of contingency depended. E.M. Curley, "The Root of Contingency," in *Leibniz: A Collection of Critical Essays*, ed. Harry G. Frankfurt, 1st ed., Modern Studies in Philosophy (Garden City, N.Y: Anchor Books, 1972), 83–84.
[117] Hans Blumenberg, "'Imitation of Nature': Toward a Prehistory of the Idea of the Creative Being," trans. Anna Wertz, *Qui Parle* 12, no. 1 (2000): 17–54.
[118] Whitehead, *Process and Reality*.
[119] A. H. Johnson, "Leibniz and Whitehead," *Philosophy and Phenomenological Research* 19, no. 3 (1959): 285–305; P. Basile, *Leibniz, Whitehead and the Metaphysics of Causation* (Springer, 2009); Pierfrancesco Basile, "Learning from Leibniz: Whitehead (and Russell) on Mind, Matter and Monads," *British Journal for the History of Philosophy* 23, no. 6 (November 2, 2015): 1128–49.
[120] Debora Hammond, *The Science of Synthesis Exploring the Social Implications of General Systems Theory* (Boulder: University Press of Colorado, 2003), 19; David Ray Griffin, *God, Power, and Evil: A Process Theodicy* (Westminster John Knox Press, 1976); R. Maurice Barineau, *The Theodicy of Alfred North Whitehead: A Logical and Ethical Vindication* (University Press of America, 1991).
[121] Luhmann, "Funktionale Methode und Systemtheorie," 49.

only the parts have true reality or Being, what kind of Being belonged to the whole? If the parts "guarantee the substantiality of the whole," and substance is defined as indivisible self-identity, does the whole lack Being because of its divisibility? And then what does one make of the claim, at least as old as Aristotle, that the whole consists of more than its parts? The mechanical and organic offered two competing (or complementary) metaphors for rendering legible the relationship of parts and wholes, helping to ward off the paradoxes of the part/whole distinction.[122]

The critique of the whole/part distinction had a familiar precedent in German idealism. Most famously, Kant, in the second of the cosmological antinomies in the *Critique of Pure Reason* on "quality," had, after all, recognized the fruitlessness of the metaphysical hypostatization of the world as a whole made up of simple parts, as well as its converse. The world totality, by contrast, could only be approached as a regulative ideal, or, in Cohen and Cassirer's terms, as an infinitesimal limit.[123] According to Cassirer, even Kant's rejection of whole/part thinking, in fact, originated or was at least prefigured by Leibniz, for whom the ideal of radical, complex and infinite individuality stood at the center of his concept of the monad: For Leibniz, Cassirer argued, "the concept of the *whole* has gained a different and deeper significance. For the universal whole can no longer be reduced to a mere sum of its parts." Instead, Cassirer argued, Leibniz's "new whole is organic, not mechanical; its nature does not consist in the sum of its parts but is presupposed by its parts and constitutes the condition of possibility of their nature and being."[124] Parsons too followed this sense of the organic system as irreducible to a "mosaic of unit parts" or "atoms."[125] The organic here would be defined as a whole with emergent properties, whose parts were merely the result of abstraction: that is, Leibniz and Parsons both recognized a concept of whole that is not only "more than" the sum of its parts, but is simply not constructed out of parts in an ontological sense.[126]

In attempting to outwit part/whole paradoxes through every kind of metaphysical acrobatics, not least through the use of mechanical and organic background metaphors, the ontological tradition had become narrowly fixated upon the question of systems' *internal* order, to the almost complete neglect of their external boundary. Dahrendorf's critique that functionalism appeared shackled to the framework of "closed systems" was thus not without cause. The question of system stability had usually been posed a question of internal order; for social and political theorists, it appeared as the problem of integrating individuals into society. Not by accident, Luhmann suggested, had functionalism experienced its greatest success in the investigation of isolated "island cultures, small groups, and organized industries."[127] Their spatial environments had

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[122] Deutsch, "Mechanism, Organism, and Society."

[123] Moynahan, *Ernst Cassirer and the Critical Science of Germany, 1899-1919*, 53–54; Kant's cosmological antinomies and the "ideal of pure reason" are also the major focal point for Fink's argument about the concept of the reality of totality in *Alles und Nichts*.

[124] Cassirer, *The Philosophy of the Enlightenment*, 31 Further, "The monad is not an aggregate but a dynamic whole which can only manifest itself in a profusion in an infinity, of different effects […] This conception, which is no longer based on the concept of being but on that of action, lends an entirely new significance to the problem of the individual entity." 32. This reading of Leibniz shows up repeatedly in Cassirer's own theory of knowledge, with a clear reference to calculus: "Each particular member of experience possesses a symbolic character, in so far as the law of the whole, which includes the totality of members, is posited and intended in it. The particular appears as a differential, that is not fully determined and intelligible without reference to its integral."; Cassirer, *Substance and Function and Einstein's Theory of Relativity*, 300.

[125] Parsons, *The Structure of Social Action*, 748.

[126] Parsons, nonetheless, in his manifold layers of distinctions, still looked for further means to analytically reduce phenomena to smaller units, while using distinctions to preserve their autonomy. He distinguished, for example, between "unit analysis" and "element analysis," in which the former are parts composed of a larger whole, composed not of further parts, but of specific values of a class of elements, which are not particulars, but rather universals. Emergent phenomena are identified in terms of elements, but are not composed of unit-parts.

[127] Luhmann, "Funktionale Methode und Systemtheorie," 49.

provided a sufficient simulacrum of closure to enable the old system concept to survive the transition into modern social theory. But what about the social systems of the modern age, whose only limits were those of the globe they encompassed?

b. System/Environment: General Systems Theory, Open Systems and Synthetic Self-Substitution

Given the theoretical deficiencies of mechanical and organic metaphorics, it is thus all the more ironic that it was precisely the two premier twentieth-century sciences of the mechanical and the organic, respectively, that made possible Luhmann's attempt at overcoming this ontology: cybernetics and systems biology.[128] In uneasy alliance with cybernetics,[129] a new field with similarly grandiose aspirations called "General Systems Science" attained maturity by the early 1960's.[130] With often overlooked precursors in the eighteenth[131] and nineteenth centuries,[132] the twentieth-century origins of General Systems Science, however, are traditionally attributed to the efforts of Austrian biologist Ludwig von Bertalanffy. Only a few years after formulating a theory of the organism in Vienna in the 1930's, Bertalanffy quickly extended his project in "speculative biology" into a call for a general systems science by 1937 during a brief stay in the United States.[133] By the 1950's he had persuaded an increasing number of interdisciplinary scholars to deploy his theory as a new universal paradigm for studying all kinds of dynamic entities in the world.[134] Formulated, like many twentieth-century philosophical critiques of modern science, as a reproach against Cartesian, mechanical science, and inspired by Nicolas of Cusa, Leibniz, and Fechner,[135] Bertalanffy's work resulted in a theory of what he came to call, by 1950, "open systems." Opposed to the "closed systems" studied by physicists, open systems were supposed to explain the possibility of self-organizing systems without violating the second law of thermodynamics.[136]

By the 1950's, Bertalanffy had again left Austria to escape de-Nazification hearings, finding employment at various universities in the UK, Canada, and United States, where his colleagues managed to overlook his virtually unqualified support for Nazism during the war. This went far beyond token party membership. Bertalanffy authored several texts that employed biological systems theory to justify central tenets of Nazi ideology, going so far as to revise his prior critiques of the

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[128] One of the earliest founding documents of cybernetics precisely posed the question in terms of the problem of purpose and teleology: Arturo Rosenblueth, Norbert Wiener, and Julian Bigelow, "Behavior, Purpose and Teleology," *Philosophy of Science* 10, no. 1 (1943): 18–24.

[129] David Pouvreau and Manfred Drack, "On the History of Ludwig von Bertalanffy's 'General Systemology', and on Its Relationship to Cybernetics," *International Journal of General Systems* 36, no. 3 (June 1, 2007): 281–337; David Pouvreau, "On the History of Ludwig von Bertalanffy's 'General Systemology', and on Its Relationship to Cybernetics - Part II: Contexts and Developments of the Systemological Hermeneutics Instigated by von Bertalanffy," *International Journal of General Systems* 43, no. 2 (February 17, 2014): 172–245; Manfred Drack and David Pouvreau, "On the History of Ludwig von Bertalanffy's 'General Systemology', and on Its Relationship to Cybernetics – Part III: Convergences and Divergences," *International Journal of General Systems* 44, no. 5 (July 4, 2015): 523–71.

[130] Deutsch, "Mechanism, Organism, and Society"; Karl W. Deutsch, "Mechanism, Teleology, and Mind," *Philosophy and Phenomenological Research* 12, no. 2 (1951): 185–223.

[131] Sheehan and Wahrman, *Invisible Hands*.

[132] Heidelberger, "Concepts of Self-Organization in the 19th Century"; Heidelberger, *Nature from Within*.

[133] Hammond, *The Science of Synthesis Exploring the Social Implications of General Systems Theory*, 9.

[134] Ludwig Von Bertalanffy, *Modern Theories of Development: An Introduction to Theoretical Biology* (Oxford University Press, H. Milford, 1933); Ludwig von Bertalanffy, *General System Theory: Foundations, Development, Applications* (New York: G. Braziller, 1973).

[135] Ludwig von Bertalanffy, *Nikolaus von Kues* (München: G. Müller, 1928); Hammond, *The Science of Synthesis Exploring the Social Implications of General Systems Theory*, 18, 103, 108.

[136] Ludwig von Bertalanffy, "The Theory of Open Systems in Physics and Biology," *Science* 111, no. 2872 (January 13, 1950): 23–29.

concept of wholeness by describing social and organic wholes as hierarchies governed at all levels by the *Führerprinzip*.[137]

Soon this past was all but completely forgotten. Along with mathematician Anatol Rapoport and economist Kenneth Boulding, members of Chicago's Center for Advanced Studies in the Behavioral Sciences, Bertalanffy would help found the Society for General Systems Research in 1954 to promote the universal application of these new, mathematical models of systems to non-physical entities such as social and human behavior.[138] Much like the cybernetics with which it often overlapped, "General System Theory" aspired to the status of a revolutionary universal theory that could counteract the centrifugal force of disciplinary isolation and reunify the sciences. As much a philosophical as a scientific project—often to the detriment of the latter, according to critics—it became in some quarters a full-fledged social movement, promising to solve many of the world's intractable ills.[139] For those among his followers able to ignore his repugnant past, Bertalanffy become a kind of cult figure, an unjustly forgotten pillar of twentieth-century intellectual history.

Bertalanffy's theory developed in a complex and mutually beneficial relationship with the cybernetic tradition, although neither ultimately encompassed the other, and both provided resources for the development of social systems theories. Each emphasized the ways in which a system used its own internal order to manage its relationship with its environment, and vice versa. According to this paradigm, systems are defined in terms of their own self-produced difference from their "environment." In contrast to the closed systems that had more or less dominated how European had imagined systems, this resulted in what has come to be known as the theory of "environmentally open systems." Buckley, a follower of Bertalanffy's paradigm, argued that Parsons, in cleaving to a *closed* system equilibrium model, was plagued by ambivalence between the two metaphorics, some of its weaknesses deriving from its having been "built after a melange of the biological structure-function model and a mechanical equilibrium model."[140]

By contrast, the paradigm of open systems, which Luhmann shared with Buckley in the 1960's, did not impart the to concept of "stability" the status of an "authentic essence" or "unchangeable substance." Instead, stability appeared "as a relation between system and environment, as the relative invariance of the system structure and system boundaries with respect to a changing environment."[141] Against the charge of political conservatism attendant on the idea that stability was the "norm" towards which systems converged, the theory of open systems replied that, since the identity of a system relied on its self-differentiation from its environment, its stability or "survival" could only ever refer to its own continuous self-reconstruction of the boundary between itself and what it is not. Such self-reproduction depended, however, on the system's openness to environmental disturbances and informational or energetic flows.[142]

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[137] Bertalanffy's multiple and deep connections to Nazism is well documented in David Pouvreau, *The Dialectical Tragedy of the Concept of Wholeness: Ludwig von Bertalanffy's Biography Revisited*, Exploring Unity through Diversity, v. 1 (Litchfield Park, AZ: ISCE Pub, 2009); For Bertalanffy's most disturbing statements, see Ludwig von Bertalanffy, "Wandlungen Des Biologischen Denkens," *Neue Jahrbücher Für Wissenschaft Und Jugendbildung* 10 (1934): 339–366; Ludwig von Bertalanffy, "Die organismische Auffassung und ihre Auswirkungen," *Der Biologe* 10 (1941): 247–258 and pp. 337–345.
[138] Hammond, *The Science of Synthesis Exploring the Social Implications of General Systems Theory*.
[139] The cybernetic aspiration to universality has been particularly well documented. See, Geof Bowker, "How to Be Universal: Some Cybernetic Strategies, 1943-70," *Social Studies of Science* 23, no. 1 (1993): 107–27; Ronald R. Kline, *The Cybernetics Moment: Or Why We Call Our Age the Information Age* (Baltimore: Johns Hopkins University Press, 2015).
[140] Walter Buckley, *Sociology and Modern Systems Theory* (Englewood Cliffs, N.J.: Prentice-Hall, 1967), 30.
[141] Luhmann, "Funktionale Methode und Systemtheorie," 50.
[142] From a formal mathematical perspective, the concept of information and that of entropy appear equivalent, and attempts were made to unify thermodynamics and information theory, although they have been unsuccessful. On the slippery relationship between the concepts of information and energetics, see Katherine Hayles, *Chaos Bound: Orderly Disorder in Contemporary Literature and Science*, 1 edition (Ithaca, N.Y: Cornell University Press, 1990).

By reframing the meaning of system boundaries, the concept of open systems proved capable of evading the logical paradoxes attending the opposition "between rigidity and movement" which Fink had emphasized in his study.[143] The boundary between system and environment is not fixed, but basally variable, designating only a variable difference between inside and outside. Certainly, these boundaries don't simply change radically at every moment, since "not everything can be moved at once."[144] Instead, using the language of mathematical functions, Luhmann argued that the system produces "constants," provisional invariants, treated as problematic, that provide the functional method with its reference points.

To paraphrase Musil, the object of Luhmannian sociology was a *society without qualities*. The functional method could be rescued only by fixing it to a systems theory of society, in which a system is understood not as a concrete existing thing, but as an always already abstract, self-referential and functional ordering of relations between possibilities of action and experience. The system *itself*, and not only for the sociological observer, is comprised of interlocking sets of functional viewpoints, "which control the system's possibilities of variation."[145] In other words, the empirical and self-referential behavior of systems could be used to limit the arbitrariness of the sociological choice of referential viewpoints. This was an overture to practicing empirical sociologists, one not lost on some of Luhmann's other young contemporaries.[146]

Using given empirical systems to provide their own reference point for functionalist analysis still required that the concept of system be revised in order to avoid the hypostatization of an arbitrary set of structural qualities to define its identity.[147] A system that generates its own identity in time would burst the bounds of the "ontological premises" that demanded the fixity of identity. A post-ontological functionalism grasped the identity of a system not "as the exclusion of other possibilities of being," or as "self-contained substance, but rather a coordinating synthesis, which orders references to other possibilities of experience." It was not that systems lack identity, Luhmann considered, but rather that the concept of identity had been misunderstood by the ontological tradition. In fact, systems theory provided an entirely different concept of identity. "Identity… is always system." Luhmann averred. "Its continued existence is based not on an unchanging kernel of being, which knowledge is to discover, but rather upon the preservation of its ordering function for a consistent, socially-oriented experience."[148]

A system's identity resides not in its resistance to all forms of change, but rather in its own ability to vary itself. Systems formulate their own abstract viewpoints in order to make decisions about how to proceed. They are characterized, fundamentally, not by determinism, but by the freedom to decide between possible alternatives: "A reference point must be able to function as a decision criterion for the equivalence of determinate facts," Luhmann submitted. "It therefore defines a realm of flexibility and adaptive ability, of indifference towards deviation and tolerance of

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143 Fink, *Zur ontologischen Frühgeschichte von Raum, Zeit, Bewegung*.

144 Luhmann, "Funktionale Methode und Systemtheorie," 51.

145 Luhmann, "Funktion und Kausalität," 2009, 24.

146 For example, although not entirely convinced by Luhmann's attempts to rescue functionalism from traditional critiques, Renate Mayntz's 1965 review of Luhmann's first major monograph, *Function and Consequences of Formal Organization*, nonetheless indicated the potential empirical productiveness of Luhmann's substantial revisions to the theory. Renate Mayntz, "Theorie der Organisation Bemerkungen zu einem Buch von Niklas Luhmann," *Der Staat* 4, no. 2 (1965): 215–21.

147 Although not everyone would find Luhmann's attempt to use the concept of system to delimit arbitrariness entirely convincing, even after the publication of the 'mature' version of his theory. See, for example, Bernd Oberdorfer, "Einschränkung der Beliebigkeit? Systemische Selbstreproduktion und gesellschaftlicher Strukturaufbau," in *Kritik der Theorie sozialer Systeme: Auseinandersetzungen mit Luhmanns Hauptwerk*, ed. Werner Krawietz and Michael Welker (Frankfurt am Main: Suhrkamp, 1992).

148 Luhmann, "Funktion und Kausalität," 2009, 33.

contradictions, a realm of freedom to choose solutions…"[149] Such indeterminacy, equated to "freedom," became essential to what it meant for a system to be able to organize itself. Just as a single "quality" cannot define a system, neither can a single "problem." Not every problem is existential. Otherwise every dysfunction would result in a cascade of failures, destroying the system. Instead of relying on fragile linear causal chains, functional systems operate through overlapping, embedded and recursive networks of problem abstractions that immunize and stabilize themselves against variations elsewhere in the system.[150]

c. Boundaries of System Identity: Generalized Expectations and Functional Differentiation

Portraying systems as fundamentally variable and elastic, following their own provision of functional viewpoints, had the advantage of opening up new horizons for handling complex societies and their contradictions. What appears as a contradiction or a paradox between different problems and their solutions can be split up, the contradictory terms or tendencies can be assigned to different levels of abstraction, into a "*Problemstufenordnung*."[151] Systems modularize themselves, or, in the language of sociology, they are functionally differentiated. A functional performance or solution at one level can generate dysfunctions at another. But in so doing, this secondary problem becomes the site for the development of new functions—and so on and so forth. This presentation of what would be called "functional differentiation," Luhmann argued, "could mediate between Parsons' systematic functionalism and Merton's problem-oriented 'theories of the middle range'."[152]

The functional differentiation of systems into modularized subsystems, each with their own specific functional contribution to the total system, however, was vulnerable to the charge that it merely replicated the image of society as an integrated whole composed of parts which cooperated harmoniously to carry out its ends. Depending on one's political perspective, this could appear either naively utopian or totalitarian. The concept of differentiation seemed to suggest the philosophical difficulty that, on the one hand, the parts caused the whole to continue to exist, while on the other hand, the parts only existed for the sake of the whole, their "purpose" and their cause. Thus, much like older forms of functionalism, the concept of a "differentiated" system thus appeared to oscillate dangerously between the infinite regress of efficient causality and the tautology of teleological causality.[153] Clearly, this would not do.

In "Function and Causality" Luhmann had only gestured towards a systems theory of society, never sufficiently clarifying how the concept of system, which established its own identity through differentiation, would overcome the objections that it remained teleological, tautological or causal, and still provide non-arbitrary reference points for functional analysis. In "Functional Method and Systems Theory," however, published two years later in 1964 in *Soziale Welt*, Luhmann sought to demonstrate that these objections to the system concept had once again relied on faulty ontological premises, that could be rectified through a philosophically reconstructed systems theory.

To address this challenge, Luhmann turned to the same concept of generalization that had helped him rethink the nature of functional reference points. Systems are not "things" with stable identities and boundaries. Instead, system identity is processual. The identity of a system is a function of its ability to "problematize" its own boundaries. Following Parsons, Luhmann emphasized the role of actions and expectations in forming these generalized boundaries of social systems. He claimed that, "social systems consist of factical actions, which meaningfully cohere

[149] Luhmann, 24.
[150] Luhmann, 25.
[151] Luhmann, 27.
[152] Luhmann, 28.
[153] Deutsch, "Mechanism, Teleology, and Mind."

[*sinngemäß zusammenhängen*]. Such a context of meaning [*Sinnzusammenhang*] gains duration, consistency and becomes capable of consensus as the action becomes typically expectable."

Crucial for the drawing of boundaries is that a meaningful action is not treated as a self-contained thing or event, but as the reference point for coordinating the *expectations* of different social actors. In other words, system stability is a function of the "stabilization of behavioral expectations."[154] These generalized expectations can always be disappointed, and therefore they can be problematized and used as functional reference points by the system itself, enabling it to redraw those boundaries. Socially generalized behavioral expectations, not "factical actions," lend system boundaries their "relative invariance." In fact, Luhmann would drop the latter Parsonian claim about social systems as "action systems" only a few years later, because he realized that the description of systems as "composed" of factical actions suggested the ontological metaphysics. Hence generalized and communicable expectations ultimately became the basic "stuff" of social systems, while actions would come to be relegated to the status of mere ascriptions made by the system.

Although not made explicit until the end of the decade, the derivative status of action vis-à-vis social systems was already implied, however, in Luhmann's 1964 account of functional differentiation. Any determinate and observable action almost always involves multiple system references. Paying a tax, for example, constitutes a communicative act in the economic, political, and legal system insofar as it communicates information about prices, property, power, legitimacy, and legal obligation. But it communicates something different for each system, because the political system and economic system constitute themselves by differentiating from their environments according to their respective and unique generalized logics. In other words, open systems not only have *external* environments, but *internal* ones too. Like a fractal, the system/environment distinction that constitutes a system is also repeated within it. This observation formed the basis of Luhmann's theory of "functional differentiation." Instead of being composed of discrete, thing-like parts, functional systems self-organize and manage their external boundaries by differentiating themselves into subsystems, each of which develop their own system/environment boundaries. Each subsystem, moreover, belongs to the environment of all the others. For example, the political and legal systems are in the environment of the economic system, and vice versa.[155]

By no means, however, did Luhmann deny the relevance of hybrid entities or sciences like political economy. All sorts of patterned relations subsist orthogonal to the boundary between system and environment, so long as they are not the kind of relations the system *itself* uses to construct that boundary. Put differently, a system is not "ontologically" distinct from its environment, in the sense that functional differentiation does not involve a separation of *things*—apples in the system, oranges in the environment, humans in the system, animals in the environment. This interpretation, according to Luhmann, had permitted the paradoxical trope of the opposition of individual and society that social contract theories had attempted to solve, which depicted them as both distinct "entities" opposed to one another and as parts belonging to a whole. This paradox could be solved easily, Luhmann argued, if sociology simply recognized that systems are not wholes made up of human parts, and instead relegated the concrete human being to the environment of the social system.[156] But then the concepts of reason and rationality, so long tied to the humanistic tradition, would have to be revised as well.

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[154] Luhmann, "Funktionale Methode und Systemtheorie," 53.

[155] Luhmann, *Funktionen und Folgen formaler Organisation*, 73–89; Armin Nassehi, "Die Theorie Funktionaler Differenzierung Im Horizont Ihrer Kritik / The Theory of Functional Differentiation in the Horizon of Its Criticisms," *Zeitschrift Für Soziologie* 33, no. 2 (2004): 98–118.

[156] Luhmann, 57; Once again, here Luhmann shared a sentiment with Adorno: "For all the aversion of empirical sociology to the philosophical anthropologies which became fashionable in the same period," Adorno wrote, "it shares with them a standpoint; namely, the belief that already in the here and now it is man as such who is central, instead of

determining socialized human beings in advance as a moment of societal totality—in fact, predominantly as the object of the latter." Adorno, "Sociology and Empirical Research," 72. Interestingly, this move also involves an inversion of a tenet of Leibnizian metaphysics, which strangely recapitulates its original intention: Leibniz famously and counter-intuitively denied causal relations between substances, his monads. But causality had a far more "substantial" position in his metaphysics. By contrast, Luhmann denied operational interaction between systems, although allowed causal interaction. But the intent was the same: to circumscribe a realm of pure autonomy, which Luhmann will later call "operational closure," while insisting on the relevance of external relations, of one sort of another, between everything existing. Leibniz only thought that causality, for him a far more primordial category, would disturb the autonomy of the monads. For Luhmann, functional behavioral expectations, as communications, were more primary causes.

5
THE BUREAUCRATIC MINOTAUR
ORIENTING ACTION THROUGH IDEOLOGY AND FORMAL ORGANIZATION, 1960-1964

» Introduction «
Revising the Metaphysical Pathos of Bureaucracy

Luhmann's earliest demonstrations of the power of the functional method focused on two of the most prominent keywords of twentieth-century social theory: ideology and bureaucracy. Through the 1960's these phenomena had been the paradigmatic objects of twentieth-century sociology, glaring symbols of Europeans' characteristic ambivalence towards modernity that represented something at once more rational and more irrational than anything that had come before. The two terms had also been frequent companions in cultural-critical controversy, depicted as countervailing aspects of modernization: bureaucracy as the engine of rationalization and ideology as the repository of a seemingly inextinguishably social "irrationality." The "End of Ideology" thesis, for example, depicted the rationalization spearheaded by the administrative social state as the harbinger of ideology's gradual dissipation. As the administrative welfare state became increasingly competent at managing the distribution of resources and mitigating economic depressions, essentially eliminating the social hardships responsible for modernity's great political radicalizations, the need for ideologies to help integrate society would wither away. The state's success in managing national economies, in short, allegedly blurred the differences between socialism and capitalism, undermining the basic ideological opposition that defined the Cold War.

But this thesis was sharply rebuked by critics of every political stripe as just another species of ideology. The belief that ideology had begun to wither away, they countered, amounted to little more than the hollow promise of technocrats for whom every pressing social problem could be tidily ameliorated by the bureaucratic application of techno-scientific procedures. The material abundance generated by this "technological society" may have blunted class conflict, but for that very reason it reinforced alienation and depoliticization by dissipating strong socio-cultural ties and by discouraging democratic participation. Such societies thus required the assistance of a pervasive consumerist and quietist ideology to compel citizens to accept the status quo passively.

Critics of bureaucratic order across the political spectrum nevertheless held something crucial in common. Almost all assumed that bureaucratic order had become a necessary yet fundamentally irredeemable evil. At best, it could be held in check through political and legal mechanisms. Otherwise it would have to be totally dismantled and replaced with categorically new and utopian forms of social organization. Such critics thus shared a conception of what Gouldner, in 1955, called the "metaphysical pathos of bureaucracy:" a pessimistic and even fatalist presumption about the prospects of redressing the shortcomings of bureaucratic organization.[1] Riffing on Arthur Lovejoy's diagnosis of the "metaphysical pathos of the obscure"—the entrancing effect some grandiose cosmic ideas have on their readers—Gouldner aimed to analyze the almost mythological fatalism represented in Michel's "iron law of oligarchy," Max Weber's "iron cage" of modernity, and

[1] Alvin W. Gouldner, "Metaphysical Pathos and the Theory of Bureaucracy," *The American Political Science Review* 49, no. 2 (1955): 496–507.

Kafka's iconic portrayals of bureaucracy in *The Castle* and *The Trial*.[2] The chilling and mysterious obscurity of these tropes, he charged, had successfully entranced social theorists into more or less submitting to the inevitability of bureaucratic proliferation.

Gouldner, on the contrary, maintained that the problem was not bureaucracy as such, but rather only the specific form that had come to dominate the modern world, owing to nothing more than the fickle fortunes of history. And it drew strength from the ideological conviction that organizational theorists had been all too complicit in reinforcing: under the guise of the myth of "value-neutrality," which Gouldner deemed the "Minotaur" of the modern social sciences, social theorists had given a scientific imprimatur to the idea that the public should fatalistic resigning themselves to life in the bureaucratic labyrinth.[3] But this expert-backed ideology obscured the fact that bureaucracy, far from observing any "iron law," was but a contingent product of history. The solution, he averred, was not to passively accept bureaucracy or rid the world of it altogether, but to make it more compatible with democracy by reforming its structural premises.

Luhmann may have shared Gouldner's quasi-Marxist disdain for bureaucratic fatalism, but not because he agreed that an entirely different bureaucracy was possible if one simply dared imagine it, but because he believed that bureaucratic organization had yet to be adequately comprehended. He thus dedicated the bulk of his academic writings during his employment as an administrative scientist in the early 1960's to rethinking the conceptual premises of the study of the behavior of complex organizations, emphasizing the domain most familiar to him: public administrations.[4] For Luhmann, simply put, there was nothing intrinsically wrong with bureaucracy. Many of its most detestable characteristics, such as the boredom and alienation engendered by routine procedures, were actually surprisingly conductive to human freedom.[5] But even more important, for Luhmann, was that the specific rationality that had been associated with bureaucracy since at least Weber could only be adequately comprehended if its premises were carefully revised.

The same held for ideology and the myth of value-neutrality. Ideology and truth could and had to be neatly separated—not because of any ontological distinction between two kinds of knowledge, or between facts and values, but simply because each performed a distinctive social function. Ideology was neither deficient with respect to truth, nor was it made up of different "stuff." Ideology and truth merely named contrasting techniques for organizing human experience and action in modern functionally differentiated societies.

In typical fashion, Luhmann thus argued that only a thorough reconstruction of the two concepts, one which interrogated and revised their most fundamental ontological presuppositions, could productively transcend the stale polemics that had come to dominate academic and public discourse about modern societies. This analysis would reveal not only that a systems-theoretical functionalism could better account for the behavior of ideologies and bureaucracies—which he described under the far more neutral heading of "formal organization"—but also that such an account could demonstrate their *functional equivalence*: that is, Luhmann appraised ideology and bureaucracy to be functionally equivalent with respect to their ability to organize and coordinate the space of action and experience in modern societies.

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[2] Arthur O. Lovejoy, *The Great Chain of Being: A Study of the History of an Idea* (Cambridge, Mass.: Harvard University Press, 1936), 11.

[3] Alvin W. Gouldner, "Anti-Minotaur: The Myth of a Value-Free Sociology," *Social Problems* 9, no. 3 (1962): 199–213.

[4] Marleen Brans and Stefan Rossbach, "The Autopoiesis of Administrative Systems: Niklas Luhmann on Public Administration and Public Policy" 75 (1997): 417–39; David Seidl and Kai Helge Becker, *Niklas Luhmann and Organization Studies* (Liber, 2005); Dirk Baecker, "Luhmann und die Manager," in *Luhmann Lektüren*, ed. Dirk Baecker, Wolfram Burckhardt, and Niklas Luhmann, 6 (Berlin: Kulturverlag Kadmos, 2010).

[5] See Niklas Luhmann, "Lob der Routine," in *Politische Planung* (VS Verlag für Sozialwissenschaften, Wiesbaden, 1971), 113–42. I discuss this text in Chapter Six.

The functional equivalence of ideology and formal organization did not mean that Luhmann subscribed to the end of ideology thesis. Quite the contrary, like progressive critics, he saw the two as mutually supportive, with the crucial difference that he declined to imbue them with a negative pathos. Their functional equivalence was far more abstract: both ideology and formal organization afforded what Luhmann would later call the "reduction of complexity." Each was much like a quasi-transcendental "social" a priori, which made social action possible by rendering an infinitely-dense and variable reality *legible* and *decidable*. But in the process, Luhmann revealed that the meaning of action and its relationship to social systems had to be placed in the context of the history of metaphysics, and then reimagined from the ground-up.

Bureaucracy and ideology thus provided Luhmann more than instructive cases for the application of the functional method. As key elements of his field of study at a formative moment in his career, the motifs and concepts he elaborated while studying them also decisively shaped the emerging contours of his mature systems theory of society. The "reduction of complexity" would become one of the keywords most closely associated with his name, and for good reason. It eventually emerged as the basic form of all system problems, the fundamental "functional reference point" for delineating the function of specific systems, from norms to organizations and the major subsystems of society. Although he did not yet use the phrase before roughly 1965, its concept already appeared in rudimentary fashion in these texts.

Finally, it is particularly important to pay attention to the influence of these investigations on Luhmann's later work because neither ideology nor bureaucracy really "stuck" in Luhmann's evolving theoretical lexicon. Although bureaucracy, or what Luhmann preferred to call "formal organizations" formed the heart of his early work as an administrative scientist, and although it remained a crucial component of his mature portrait of modern societies, it certainly lost its prior prominence. As Luhmann's more grandiose ambitions developed in the latter half of the 1960's, his sights turned to the social system of "society" and its functionally differentiated subsystems, which he later categorically distinguished from the types of social systems known as "organization" and "interaction."[6] Consequently, his vocabulary became more specialized, abstract, and distant from the traditional categories of sociological analysis. But Luhmann ultimately wove the dense tapestry of his mature systems theory of society out of the same conceptual threads he previously used to liberate social theory from the labyrinth of "value-free" organizational sociology.

» 1. The Concept of Ideology and Other Possibilities «

Imbibing political arguments garnished with metaphysical justifications tends to leave one with the acrid aftertaste of ideology. Since Luhmann's critique of metaphysics aimed to decant the highly politicized methodological arguments of the 1950's, it would be difficult to derive anything but the most generic political conclusions from his elevation of the semantics of possibility. Not only had Luhmann refused to invoke ontological arguments in order to draw a straight line from metaphysics to political polemic, be it liberal, conservative, radical, reactionary or progressive. Even more, he attempted to immunize his theory against any attempt to draw clear normative-political conclusions

[6] Niklas Luhmann, "Interaktion, Organisation, Gesellschaft: Anwendungen der Systemtheorie," in *Soziologische Aufklärung 2: Aufsätze zur Theorie der Gesellschaft*, 6th ed. (Wiesbaden: VS Verlag für Sozialwissenschaften, 2009); Petra Werner, "Soziale Systeme als Interaktion und Organisation: Zum begrifflichen Verhältnis von Institution, Norm und Handlung," in *Kritik der Theorie sozialer Systeme: Auseinandersetzungen mit Luhmanns Hauptwerk*, ed. Werner Krawietz and Michael Welker (Frankfurt am Main: Suhrkamp, 1992).

from it.[7] His functionalism, he hoped, would be sufficiently abstract and fungible to lend itself to all sorts of interpretations and instantiations. And given the radical complexity and diversity of modern society, this potential had become a practical necessity for scientific research. The point was not to become aloof from politics for the sake of "culture," in the classical mandarin tradition exemplified by Thomas Mann, but to attain the "distance" needed to study it.[8] And this distance, in turn, was not in the service of the nineteenth-century ideal of "objective," "impartial," or "value-free" science, embodied in what Thomas Nagel had called the "view from nowhere." Luhmann's appeal to distance resembled far more the idea of an "alienation effect," bringing to light those presuppositions taken for granted in both scientific and everyday discourse.

At no point in the early 1960's did Luhmann's particular brand of apoliticism become more evident than in his other major essay from 1962 on the concept of ideology. Penned for the very first issue of the Schmittian journal *Der Staat* in 1962, "Truth and Ideology" was prompted by the increasing interest in the Marxian concept among non-Marxist American and British social theorists at the height of the Cold War, part of the post-Stalinist thaw and the left-wing disillusionment following the crushing of the Hungarian Revolution in 1956, and a result of the debates over the "end of ideology" thesis. To Luhmann, talk of the end of ideology was mostly an expression of a sense of *theoretical* exhaustion, a sense that scientific discussion of ideology had "gotten into a cul-de-sac."[9] As a socially consequential force, he noted, ideology hadn't gone anywhere.

Although concurring with liberal and conservative critics that Marx's concept of ideology was flawed, Luhmann insisted that most of them had missed the "core" of the Marxian concept. A more capacious overview of the genesis of the concept of ideology, focusing on the problem situation that gave rise to it, Luhmann hoped, would "make it possible to bring the ideology theme to another level and give it a new formulation" that could steer the sociological account of ideology out of its self-imposed paralysis.[10]

Invoking Husserl's logicist critique of psychologism, Luhmann argued that, in reducing ideas without remainder to their material context, the sociology of knowledge had ignored the logical difference between genesis and validity, causality and truth conditions.[11] According to which criteria, after all, could one certify the validity of empirical claims about causality as prior to the validity of ideas, absent a criterion establishing the validity of empirical claims to truth? The looming threat of infinite regress threatened to undermine the sociology of knowledge if its own explanation of the social origins of ideas itself had to be explained by further circumstances, and so on and so forth.[12]

At the same time, sociologists would be ill advised to simply deny the connection between ideas and social context. Instead of prioritizing one side or the other, causal genesis or truth as immanent validity, Luhmann contended, as usual, that it would be necessary to excavate the

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[7] Karl-Siegbert Rehberg, "Konservativismus in postmodernen Zeiten: Niklas Luhmann," in *Funktionssysteme der Gesellschaft: Beiträge zur Systemtheorie von Niklas Luhmann*, ed. Gunter Runkel and Günter Burkart (Wiesbaden: VS Verlag für Sozialwissenschaften, 2005), 285–309, https://doi.org/10.1007/978-3-322-80782-3_13; Niklas Luhmann, *Political Theory in the Welfare State* (Berlin ; New York: W. de Gruyter, 1990).

[8] Wolf Lepenies, *The Seduction of Culture in German History* (Princeton, N.J: Princeton University Press, 2006).

[9] Niklas Luhmann, "Wahrheit und Ideologie," in *Soziologische Aufklärung 1: Aufsätze zur Theorie sozialer Systeme* (Wiesbaden: VS Verlag für Sozialwissenschaften, 2009), 68.

[10] Luhmann, 68.

[11] Martin Kusch, *Psychologism: A Case Study in the Sociology of Philosophical Knowledge*, Philosophical Issues in Science (London ; New York: Routledge, 1995).

[12] Wittgenstein famously made a similar argument about the attempts to define language use in terms of rules. Ludwig Wittgenstein, *Philosophical Investigations*, trans. G. E. M. Anscombe, 3rd edition (New York: Pearson, 1973); The argument was extended to computer-based AI in Hubert L Dreyfus, *What Computers Can't Do: A Critique of Artificial Reason* (New York: Harper & Row, 1972); For an extension of this argument, resembling Luhmann's, see H. M. Collins, *Artificial Experts: Social Knowledge and Intelligent Machines* (Cambridge, Mass: MIT Press, 1990).

metaphysical tradition that originally made the opposition possible in the first place. For the history of ideological thought, Luhmann argued, "is a segment of the history of truth, specifically"—and this was crucial—"that segment in which the guiding principles of public thought and action have lost their truth-aptness [*Wahrheitsfähigkeit*], that is, they can be neither true nor false, but rather lie beyond the realm of possible knowledge."[13] In other words, it belonged to the moment in intellectual history when causes and purposes, truth and value, separated. In this respect, at least, Luhmann assented to Mannheim's relativist argument that ideology was a more or less neutral worldview, with no inherent connection to objective truth, neither true nor false.[14]

To reconfigure the relationship between truth and ideology, Luhmann extended his Heidegger-inspired critique of ontological metaphysics to the modern semantics of truth. Because ontology had rigidly excluded non-being from being ever since the pre-Socratics, truth, consequently, had to be identified isomorphically with being, as either its beholding or representation: "A being is in truth only when it is not not [*wenn es nicht nicht ist*]." As a consequence of the identification of truth with being as self-identical substance, the categories of change, movement, and the "merely possible" were excluded "from the realm of strict truth," because each contained a moment of non-being—the concept of movement suggests something's becoming always more and less than it is at any single moment.[15] Truth could only be assured, following the dictates of the binary logic derived from ontological metaphysics, so long as it took the form of "correct thinking." After the scientific revolution, this meant a form of thinking governed by procedures of continuous and public justification.

Whereas Aristotle considered purposes or ends as "truth apt," the scientific revolution, it is often claimed, restricted truth to the realm of intersubjective certainty, and made public justification the sine qua non of all truth.[16] As values and purposes became pluralized, they forfeited the capacity to serve as objects of scientific consensus. Consequently, truth now applied only to those objects whose validity could be held to be indisputable after a rigorous process of justification governed by *method*.[17] But the being of such true entities still unequivocally excluded every trace of non-being.[18] Ultimately, this signified that truth could only be asserted with scientific validity about those efficient causal relations that could be manipulated, repeated and publically *witnessed* in a controlled environment—what we usually call an experiment.[19]

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[13] Luhmann, "Wahrheit und Ideologie," 69.

[14] Karl Mannheim, *Ideology and Utopia: An Introduction to the Sociology of Knowledge*, trans. Louis Wirth and Edward Shils, 1976; George Lichtheim, "The Concept of Ideology," *History and Theory* 4, no. 2 (1965): 164–95; Martin Jay, "The Frankfurt School's Critique of Karl Mannheim and the Sociology of Knowledge," *Telos* 1974, no. 20 (June 20, 1974): 72–89.

[15] As discussed in Chapter Three, Luhmann imported this argument from Eugen Fink, *Zur ontologischen Frühgeschichte von Raum, Zeit, Bewegung* (Den Haag: Nijhoff, 1957).

[16] Luhmann, "Wahrheit und Ideologie," 69–70.

[17] The famous critique of this reduction, of which Luhmann was no doubt aware when writing this, is Hans-Georg Gadamer, *Truth and Method*, trans. Joel Weinsheimer and Donald G. Marshall (London: Bloomsbury Academic, 2004).

[18] It is unclear if Luhmann had, by 1962, become familiar with the work of Gotthard Günther, a German-American philosopher of cybernetics, trained originally as a Hegelian in the Leipzig School, who argued from similar Heideggerian premises for the development of a new multivariable logic, which he viewed as necessary to grasp the complex ontology of self-referentiality, from human consciousness to cybernetic machines. Luhmann would later cite his work frequently in nearly every discussion of the incapacity of traditional bivalent logic to grasp to the behavior of complex systems. Gotthard Günther, "Cybernetic Ontology and Transjunctional Operations," in *Beiträge Zur Grundlegung Einer Operationsfähigen Dialektik*, 1. Aufl, vol. 1, 3 vols. (Hamburg: Meiner, 1976); Erich Hörl, "Die offene Maschine. Heidegger, Günther und Simondon über die technologische Bedingung," *MLN* 123, no. 3 (2008): 632–55.

[19] Steven Shapin and Simon Schaffer, *Leviathan and the Air-Pump: Hobbes, Boyle, and the Experimental Life*, Reprint edition (Princeton, N.J: Princeton University Press, 2011); Yaron Ezrahi, *The Descent of Icarus: Science and the Transformation of Contemporary Democracy* (Cambridge, Mass: Harvard University Press, 1990).

The concepts of truth invoked by modern ideology critique and the sociology of knowledge, Luhmann alleged, both rested on the same ontological assumptions about causality that had stunted the growth of functionalism. Both posited a unidirectional causal relationship between the material, social world and the realm of ideas and values, in which ideology could be reduced little more than an "effect" of material relations. A rigorous philosophical critique of ontology was hardly necessary for rejecting such a coarsely framed argument. But ontological critique enabled Luhmann to argue that the sociology of knowledge revealed, despite itself, something of oft-overlooked significance: the no-less compelling existence of "other possibilities." In taking distance from the lived experience of those it studied, the sociology of knowledge related "immediately experienced meaning […] to an at first non-coexperienced viewpoint." In Merton's terminology, it related manifest experiences to latent, objective structures and processes, demonstrating the variability of the former. Consequently, the sociology of knowledge helped "bring to light *that what is experienced is also otherwise possible*." In other words, it demonstrated the fundamental contingency of the structures of thought and experience. "This proof," Luhmann concluded, "is fatal for the ontological conception of truth," because it permitted the entry of the non-Being of the "otherwise possible" into Being. "When all experience is also otherwise possible, its non-Being can no longer be excluded."[20]

A possibilist functionalism might be able to procure a more sociologically adequate conception of truth, knowledge, and ideology, by productively managing the moment of non-Being they necessarily harbored, one that the ontological tradition had consigned to secondary status. Whereas "[o]ntology attempts futilely to exorcise non-Being," Luhmann argued, "functional thought [attempts] to canalize it."[21] But what could it possibly mean for functionalist thought to "canalize" the non-Being of "other possibilities?" For Luhmann, this meant recognizing that the identity of objects of knowledge, the very root of the "security of knowledge" itself, lies in their "reference to" rather than their "exclusion of other possibilities." To best know an objects is to understand it in terms of its relations to its other possibilities of being. [22] In short: knowledge, at its core, involves comparing objects with possible functional equivalents or substitutes.

In the case of ideology, Luhmann proposed, this meant viewing ideology with respect to its functional relation to social action: "*Thought is… ideological when it is replaceable in its function of orienting and justifying action*."[23] The sociology of ideology, according to Luhmann, should not be a matter of correlating ideal content with social position, but of understanding how knowledge functions with respect to social action. Ideology had to be treated as both a regulative and constitutive element of action: that which gives action its "orientation."

» 2. Weber and Parsons on the Value Orientation of Action «

In developing an account of action in terms of its orientation, Luhmann relied on the Parsonian reconstruction and expansion of Weber's theory of action as presented, in mature form, in Parsons and Shils's 1951 *Towards a General Theory of Action*. Together with *The Social System*, Parsons' other major text from the same year, this published result of the three-year interdisciplinary "Carnegie Project on Theory" provided a point of departure for Luhmann's approach to action systems in the early 1960's. By the end of the decade, however, Luhmann would begin to take exception to the

[20] Luhmann, "Wahrheit und Ideologie," 70.
[21] "Not the exclusion of non-Being, but rather the reference to other possibilities constitutes the meaning of identity and therefore the meaning of beings. Identity is not substance, but rather a coordinating synthesis which orders references to other possibilities of experience." Luhmann, 71.
[22] Luhmann, 71.
[23] Luhmann, 72.

pride of place Parsons gave to action and the deductive approach he took to theoretical abstraction.[24] Although not yet ready in 1962 to distinguish his concept of action from Parsons', Luhmann already hinted at some of the crucial differences that would emerge in the following decade in "Truth and Ideology".

So what were Weber and Parsons' accounts of action? Reinforcing a characteristically modern tendency, both social theorists understood action primarily in terms of its rationality, meaningfulness, and instrumentality. Action was conscious, meaningful, and purposive; it involved the conscious pursuit of desired purposes, and the rational deliberation of the choice of the best causal means to be employed that would bring about the desired effect, reuniting the two realms of causes and purposes that the modern scientific revolution had ostensibly rent. Human action, in other words, offered an anchor for reuniting theory and praxis in the form of worldly causality. But one did not have to be a sophisticated Kantian to appreciate the suggestive power of this characteristically modern expression of human rationality. What has been loosely categorized as "instrumental" rationality and action (calling rationality 'instrumental' already implies its connection to action), has become a symbol for all forms of amoral, non-normative, technical, and economistic action in the modern world: the ruthless deployment of whatever means necessary to achieve an given end with the utmost efficiency without regard for moral principle or consequence.[25]

It is ironic, however, that Weber's name became so closely attached to the idea of a non-normative concept of action, because the Parsonian revival of the Weberian theory of action had been explicitly predicated on Weber's singular sensitivity to the normative moment of action. Weber's contributions to modern sociology were manifold; but it was Parsons above all who convinced many future observers that Weber' signature contribution lay in his particularly acute grasp of the role of rational-normative action in the founding of social order, and his insistence that it is *meaning* which provides the essential criterion for distinguishing action from behavior. Parsons saw Weber as one four classical sociologists whose work "converged" on what he called the "voluntaristic theory of action." According to this diffuse tradition, the rational action that founds social order cannot be reduced to the mechanical (and thus unfree) pursuit of one's own self-interest according to a simple schema of optimization, as nineteenth-century positivists, utilitarians and economists had assumed, but had to involve a complex coordination of the actions of many individuals through reference to shared norms and values. Even individual, non-social action, required such norms and values to help *orient* the actor; not only to regulate, but also to make manifest to the actor her ends and means. And to have conscious "ends" or purposes presupposes that an actor is conscious, rational, and understands meaning.

Weber formulated the concept of action with reference to the mode of abstraction of "ideal types," yielding four basic variants: purposive-rational [*zweckrational*], value rational, affective and traditional. The commentary on the meaning and relationship of these types is too storied and voluminous to engage in this context.[26] It can safely be stated, however, that the latter two types are less independent and clear-cut modes of action, and, methodologically speaking, are merely deviations from the first two "rational" types, although they better describe forms of action that

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[24] Niklas Luhmann, "Sinn als Grundbegriff der Soziologie," in *Theorie der Gesellschaft oder Sozialtechnologie: Was leistet die Systemforschung*, by Jürgen Habermas and Niklas Luhmann, ed. Karl Markus Michel, Auflage: 2. (Frankfurt a.M.: Suhrkamp, 1974).

[25] For an influential account of how instrumental reason has functioned, on the contrary, to help legitimate liberal democracies, see Ezrahi, *The Descent of Icarus*.

[26] Good overviews of some of the debates can be found in Guy Oakes, *Weber and Rickert: Concept Formation in the Social Sciences* (Cambridge, Mass. u.a.: The MIT Press, 1990); Fritz K. Ringer, *Max Weber's Methodology: The Unification of the Cultural and Social Sciences* (Cambridge, MA: Harvard University Press, 1997); Stephen P. Turner and Regis A. Factor, *Max Weber and the Dispute over Reason and Value: A Study in Philosophy, Ethics and Politics*, 3 (London: Routledge, 2006).

were historically prior to the latter two. Weber even struggled to distinguish them clearly from merely automatic animal "behavior" because of their habitual, repetitive, instinctual, reactive, or imitative character.[27] Weber's use of ideal types reinforced the connection between the concepts of action and rationality by tying the analysis of action to the rationality of the observer's methods. So despite his protestations to the contrary, a cypto-normative rationalist teleology belonged to the very foundations of Weber's method.

As already indicated, Weber recognized the cognitive rational significance of values in reducing the infinity of reality, summed up in the *Wertbeziehung* or "value relevance" of an object of inquiry. But its infinity-reducing character played less of a role in his brief remarks on the concept of value rationality, which has led many commentators to overlook this moment of cognitive rationality of values in orienting the actor to the world. Value rational is that action which proceeds according to a given value or value system: achieving empirical ends prescribed by these values is less important than consciously maintaining the absolute priority of acting to realize, embody or practice the highest value, which makes it often resemble irrational fanaticism, which Weber would later call the "ethics of ultimate ends."[28] It is still "goal-directed," like purposive rational action, because one consciously chooses one's ultimate ends and values, but the consequences of the action are less important than acting in line with the value at whatever cost.

But just as soon as Weber introduced the ideal-type of value rational action, he appeared to rescind its claim to an independent rationality: "an action which is 'rational' in this sense is always performed in obedience to 'imperatives' or in 'fulfilment [sic] of claims' which the agent believes to be imposed on him. It is only to the extent that human action is directed to meeting such claims that we wish to speak of rationality in the attempt to realise a value […]"[29] In other words, value-rational action is often only really rational to the extent that the value-rational actor *also* employs purposive-rational techniques in pursuit of the highest good. Weber immediately qualified this claim, however, by ascribing a kind of cognitive rationality to the use of ultimate values to help an actor *decide* between other conflicting ends. By prescribing a decision criterion not in terms of the efficiency of means or the consequences of an action, but in terms of the action's relation to a set of highest values, value rationality can be said to take precedence over its purposive counterpart.

Whether owing to his "idealist" roots or merely a different explanatory interest, Weber was therefore often accused of leaving ultimate values in the dark obscurity of the irrational. Although they enable action and make it intelligible, values, in Weber's account, can be neither rationally justified nor causally determined. Someone either holds them to be valid, or doesn't. Values therefore tend to remain external to action's rational core. And so despite Weber's disavowals of his method's alleged rationalism, his ideal type of purposive-rational action became all too easy to confuse with the concept of rationality as such. While values may play a "rational" role in orienting action as a kind of 'constrictor' of excess possibilities, their form of existence is essentially irrational.

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[27] Max Weber, "The Nature of Social Action," in *Max Weber: Selections in Translation*, ed. W. G. Runciman, trans. E. Matthews (Cambridge ; New York: Cambridge University Press, 1978), 19–20. Later, on page 28, he remarks that traditional and affective action "lies […] directly on, and often beyond the boundary marking out the area of what can in general be called 'meaningful' action."

[28] Max Weber, "Politics as a Vocation," in *From Max Weber: Essays in Sociology*, ed. Hans Heinrich Gerth and C. Wright Mills (New York: Oxford University Press, Galaxy, 1958). Other commentators have also pointed to the parallels between the two ideal types of rational action and the two political ethics, with purposive-rational action anticipating the later "ethic of responsibility," itself a mirror of the opposition between consequentialist and deolontological ethics. This is complicated, of course, by the fact that a particular mixture of the two seemed to provide the template of totalitarian rationality: the pursuit of some ultimate ends using the most efficient, bureaucratic means to achieve them.

[29] Weber, "The Nature of Social Action," 29.

Such was Parsons view of Weber, in any case. But Parsons believed Weber's failure was due less to his concept of rationality than to the shortcomings of his ideal-type method. It was therefore easily rectifiable through a different approach to theoretical concept formation that broke up actions into more abstract "analytical elements." Accordingly every action always involved what Parsons called "pattern variables:" five analytical elements of every action, which, although they never exist independent of a concrete action, nonetheless are necessarily involved in some way in every action. The details aren't important here. What matters is that Parsons derived three of them from the ways in which actors "orient" themselves in acting. All action, for Parsons, involves both motivational- and value-orientations. In a manner strikingly reminiscent of Arnold Gehlen's theory of institutions, Parsons argued that one could not simply assume the human creature to come fully formed with a clear way of moving through the world, with fully formed desires, motivations, purposes, and skills, differences being primarily of situation or biological inheritance. In terms of the incredibly complex range of parameters, the human creature requires all kinds of guidance in order to make free choices about how to act, and therefore to live. Values, encompassing all sorts of norms and shared values systems, step in to lend a hand in imparting the world with a meaningful structure, that is, one that can be acted upon.

Ultimately, however, both Weber and Parsons left intact the ends/means scheme as a fundamental structure of action as such: action remained the conscious pursuit of an end employing determinate means. And the ends/means schema itself mapped directly onto the causal schema, by making the end into the desired "effect" to be pursued through the employment of the causal means. Action, in other words, could be understood as the "effecting of an effect," structured according to the ends/means schema. Values, norms, desires, purposes, situations and circumstances became just so many variables for qualifying what ultimately remained the concretely indivisible "unit act" of Parsons action frame of reference. The very meaningfulness and intelligibility of action, what differentiated it, for Parsons, from mere behavior, was some minimal orientation to a desired purpose and a decision to act causally in the world to bring it about. For example, Weber required a complete interpretation of action to be "adequate" on both the level of its meaning—that is, understanding its motives and purposes—and the level of causality.[30]

» 3. Luhmann on Orientation «
Historicizing the Metaphysics of Action

Luhmann agreed with Weber that the ends of action were, if not exactly irrational, then at least they were not matters of "truth." But what for Weber had been a vice to be managed became for Luhmann the precise virtue of instrumental action. Precisely because ends and purposes had been untethered from the ontological metaphysics governing the semantics of truth, their power to illuminate the "other possibilities" previously occluded by that metaphysics could now be fully recognized.

First of all, Luhmann's discussion of purposes took recourse to a historical narrative quite different from Weber and Parsons's: the Heideggerian "history of Being" Luhmann borrowed from Eugen Fink. Purposes, after the seventeenth century, had taken on a different meaning and function in lieu of transformations in the socially dominant interpretation of reality. Far from a universal

[30] Weber, 12–15. For example, on page fifteen, Weber wrote: "To give a correct causal interpretation of a particular action is to see the outward course of the action and its motive as appropriate and at the same time as related to each other in a way whose meaning can be understood. To give a correct causal interpretation of a typical action (or intelligible type of action) is to show that the occurrence which is said to be typical not only seems to be adequate to some degree or other on the level of meaning but is also to some degree or other causally adequate."

element of all action as such, Luhmann understood the concept of purpose as a component of a historically determinate social interpretation of action, which meant that the very nature of action changed as the social system to which it belonged reorganized itself. This constituted a radical departure from Weber and Parsons. Both had relied on the ends/means schema as the basic, universal frame of reference of all action, a sine qua non of action's rationality and intelligibility across time and space, a kind of transcendental a priori of action. Certainly, Weber and Parsons had both recognized the power of purposes and values as techniques for rendering an inscrutably infinite reality manageable, and Luhmann clearly adapted aspects of their arguments. But Luhmann's predecessors had made the causal infinity of reality, in its causes and conditions, a universal a priori of action, and so "purposes" had appeared to them as a necessary a priori category for managing such an inscrutable reality.

Luhmann did not eliminate so much as historicize Weber's neo-Kantian argument about the role of purposes and values in managing infinite reality. As in "Function and Causality," he argued that the interpretation of reality as an infinite causal nexus was itself, like the ends/means schema, a determinate historical interpretation, and not a genuine universal a priori. Only as part of the breakthrough to modernity did causality become established as *the* a priori schema of reality, making causality's well-known threat of infinite regress into an acute problem. The concept of action too threatened to fall victim to this infinite regress: the causal interpretation of action as the "effecting of an effect" also "discloses an infinite field of possible causal relations," because every action can be related to an infinite number of prior causes and subsequent consequences.[31] Some sort of "supplement" would be needed to make action 'actionable.'

By interpreting causality as a historically contingent schema of action, Luhmann was able to take another step beyond Weber and Parsons. For the older sociologists, the causal schema was simply an a priori of all knowledge. This meant that the infinite causal chains it disclosed took priority over the possibilities of action an actor considers and between which she must choose. For Weber, such possibilities remained imaginary and therefore unreal, in comparison to the real infinity of causal chains. Luhmann, by contrast, began from the standpoint of a functionalist constructivism, according to which causal infinity is only a schema revealed by a prior functional abstraction. Causality is merely one possible way to structure the infinity of possibilities disclosed by abstraction. In other words, causal infinity is but a case of functional-possibilist infinity. And functional abstractions, or "reference points," as discussed in Chapter Three, always begin with *action* as the problem, or more precisely, the *decisions* that make action possible: how to decide how to act when there are so many possible causes and consequences for every action, and the norms, value standards, and purposes could no longer be taken for granted? In other words, after the decline of self-evident purposes in early modernity, as any underlying normative consensus concerning the normative truth of ends disappeared, correct action became a problem requiring new kinds of solutions because of the new kind of unrestricted infinity of real possibilities that it both disclosed and had to confront.[32]

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[31] Luhmann, "Wahrheit und Ideologie," 74.

[32] A careful reader might note an apparent tautology in my reconstruction of Luhmann's argument: in the breakthrough to modernity, was it the recognition of the "real" infinity of reality, or the functional perspective of action that came first? Does action constitute the problem of infinity, or is it modern action constituted by the problem? Luhmann seems to imply that it was both, but it is clear he did not give this much thought here. As with much of general systems theory, some tautologies merely expose real circular, self-referential behavior, or complex positive feedback mechanisms, evidenced in many systems theorists's fascination with the figure of ouroboros, the snake that eats its own tail. Even more, the assumption that something needs to come "first," be it a new kind of action or a new recognition of causal infinity, itself presupposes, once again, the very ontological desire for unequivocal and final causal grounds Luhmann was trying to avoid. In any case, the realist/constructivist ambiguity would continue to dog Luhmann for most of his

Like Parsons's "action frame of reference," the problem of action became for Luhmann the functional reference point for understanding ideology. Here Luhmann implicitly recalled the argument he made in "The Concept of Function in Administrative Science:" not only do contemporary sociologists use the functionalist method to study society, but even more, functional thinking and abstraction already belonged to the actual behavior of modern social systems. The causal interpretation of action Weber and Parsons had taken for granted only took hold in conjunction with a breakthrough to the functionalization of real historical social systems, so that action could become the problematic "reference point" for the schematization of reality in terms of causal possibilities. The ends/means schema of action, in other words, entered into a reciprocal relationship with the causal schema *within history*, both enabling and supplementing it by imparting the causal nexus a decidable, actionable form.

The pairing of causal and ends/means schemas in the form of an instrumental concept of action was therefore not simply the result of philosophical changes and the new scientific method, a mere shift in the history of ideas. Although Luhmann did not yet spell this out, he appears to have already been committed to the stronger, historical thesis that causality and the ends/means schema appeared as constituent elements of the functional differentiation that defined modern society. The development and consolidation of those complex bureaucracies in the early modern era helped distill the ends/means schema as a functional perspective for rationalizing and routinizing administrative decision-making.

The ends/means schema operated in such systems as a first-order functional device for managing the causal infinities confronting action by introducing functional viewpoints for rational comparison. One could problematize the end, and vary the means that could be used to "cause it," or hold constant a certain set of means, and explore the possible effects or consequences that might be achieved by acting with them.[33] While bringing into view possible means, selecting a purpose as a problematized functional reference point (in mathematical terms, making it an independent variable) also has the other important effect of being able to "neutralize"[34] its other possible effects or consequences of the action that would bring it about.[35] Fixating on a purpose helps the actor avoid getting lost in deliberation about all the other possible consequences its pursuit might entail. Of course, this does not mean that such an action somehow no longer has other consequences, only that the ends/means schema functions by keeping them out of view.

Nonetheless, this purely instrumentalist structure did not solve the early modern crisis of values by simply banishing the values from the realm of action altogether. Certainly, taken alone, the ends/means schema served to make action decidable specifically by "neutralizing the welter of

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career, becoming a key point of controversy in his debate with Habermas, discussed in the last chapter. The dual concepts of complexity and contingency, which took over the semantics of infinity, as we will see in the next several chapters, were designed to address this problem as well. And much of Luhmann's later turn to the vocabulary of second-order cybernetics was a result of this apparent ambiguity.

[33] Luhmann, "Wahrheit und Ideologie," 73.

[34] Here is another location in Luhmann's work where one begins to see more clearly the influence of Husserl, in addition to Cassirer, in the new functional method. The concept of neutralization used here is likely taken from Husserl's description of the phenomenological epoche, as the "bracketing" of the belief in existence of the world used to prepare the ground for the process of free variation—a procedure not unlike functional comparison. Fink also uses this idea, as the "thinking away" [*wegdenken*] of existent things [*Seinden*], to describe their contingency, as a step on the path to thinking the modal character of totality (the world), something which Blumenberg also did in another context. Edmund Husserl, *Ideas: General Introduction to Pure Phenomenology*, ed. Dermot Moran (London ; New York: Routledge, 2012); Eugen Fink, *Alles und Nichts: ein Umweg zur Philosophie* (Den Haag: Nijhoff, 1959), 205–6; Hans Blumenberg, "Lebenswelt und Technisierung unter Aspekten der Phänomenologie," in *Wirklichkeiten in denen wir leben: Aufsätze und eine Rede* (Stuttgart: P. Reclam, 1981).

[35] Luhmann, "Wahrheit und Ideologie," 74.

consequences of actions in their possible value relevance."[36] (Note Luhmann's use the Weberian terminology of "value relevance" [*Wertrelevanz*]).[37] An agent can't be paralyzed by worry that her action will have negative consequences, for otherwise action and decision would become impossible.

Although purposive reason has long been described as purely strategic and therefore "non-normative," it nevertheless remains dependent on the minimal valuation of the purpose or goal as something desirable. But then where does the value of the purpose come from? Recall that this whole mode of thinking, according to Luhmann, corresponded to the early modern collapse of a unified cosmological framework in which truth and purposes had been continuous with one another. This meant that "as the naïve trust in the validity of the usual ends" disappeared and "as the mobilization and differentiation of the social order [shook] the secure grounds of consensus," the old purposes could no longer be taken for granted, forcing into view precisely those unintended consequences the ends/means schema was supposed to repress. For this reason it became necessary to "systematically organize" the realm of consequences under the rubric provided by new value systems.[38] In short, far from destroying the viability of normative values systems, as Weber's disenchantment thesis seemed to imply, the advent of an "instrumental rationality" governed by the ends/means schema actually intensified the structural-functional demand for new value systems. Only they would be of a particular sort. They would have to be deliberately and *artificially* manufactured universal value systems. They would have to be *ideologies*.

» 4. Ideology and Functional Equivalence «

Ideology, construed as a deliberately constructed system of values with political intent, entered history as a supplement to the new concept of human action upon which so much of modern metaphysics rested. Simply put, the "justification of action through ideological value viewpoints" had become "the necessary counterpart to the interpretation of action as the effecting of an effect," because it could mediate the kinds of value conflicts that threaten decision-making.[39] Whereas the ends/means schema brackets value relevance, ideology, by contrast, "regulates which consequences of action are significant and therefore imprints the causal field with a relevance structure."[40] Ideology therefore came to resemble an aspect of Weber's qualification concerning the intrinsic rationality of value rationality: unlike purposive-rational action, Weber argued that value-rational action subordinates the *consequences* of actions to the overarching value, which provided aid whenever one's own various ends come into conflict with one another.

Ideology could be viewed, accordingly, as functionally equivalent to other forms of regulating the infinity opened up through the causal interpretation of action, such as rational bureaucratic planning or "decision programming." Hence, Luhmann's real innovation was to view ideology as functionally equivalent species of 'infinity management' alongside others. "Ideology" was no mere neologism describing a function that religion had once played in premodern societies, and it did not describe a universal cultural value system that "integrated" societies that would be otherwise threatened by the supposedly natural centrifugal forces of atomism. Its role for Luhmann was much more reflexive and specific, a universal feature of modern societies but always plural and never singular. Ideology developed as a technique to respond to novel historical circumstances for

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[36] Luhmann, 74.
[37] It is likely Luhmann imported the term from Parsons and so translated the English term value-relevance back into *Wertrelevanz* instead of using Weber's *Wertbeziehung*.
[38] Luhmann, "Wahrheit und Ideologie," 74.
[39] Luhmann, 74.
[40] Luhmann, 74.

regulating that form of social action that coevolved with modern society. That ideologies tend to claim absoluteness, which has so often been mistaken as evidence of their secularization of a religious function, already presupposed the historical breakthrough to value pluralism, the non-truth-aptness of purposes, or what Luhmann might later call the recognition of the historical contingency of all values. Ideologies inhabit a complex, pluralistic universe of competing value systems. Their creators always remain *aware* of their competitors; they remain, at some level, cognizant of the possible valuations of the consequences they bracket out. One could derive only the most impoverished understanding of the ideology of the United State's empire in the twentieth century, for example, were one to study it in isolation from the fact of its competition with that of Soviet communism.

As a deliberate and artificial product, ideology had thus become "an essential component of modern social technology [*Sozialtechnik*]," because, just like decision programs using the ends/means schema in a complex organization—to which I will turn shortly—it had a rational function and was itself open to further rationalization.[41] Ideologies, by definition, can and must be improved and rationalized, often as a result of social and historical changes that force them to readjust to new realities. Far from the rigidity and dogmatism of which ideologies are often accused, one of their characteristic features is this opportunistic elasticity. Ideologies are reflexively aware of other ideologies in the world, and of the possible consequences of action they neutralize, which allows them reevaluate these possibilities should shifting circumstances demand new strategies.[42]

Similarly, ideologies that try to "purify" themselves of exogenous elements and aim single-mindedly at coherent internal logical consistency confront insoluble problems. They fail to serve their major purpose: to orient actions and help make decisions when confronted by otherwise irreconcilable value conflicts. It is impossible to create an internally logically consistent system of value rankings to cover every action and decision that might arise in any possible situation. The action-orienting function of ideology derives from its ability to provide flexible rules and techniques for managing unavoidable value conflicts, for example, by producing "decision rules" such as a "rank ordering of values," which manages rather than eliminates value conflicts by providing clear yet highly generalized priorities.[43]

Ideology's ability to lend logical consistency to its ordering of values also encourages it to preserve a degree of semantic ambiguity in its characterization of its values, purposes, and key words. The core tenets of an ideology cannot be so narrowly specified as to preclude a certain tolerance for deviation and interpretation. Like functional systems, ideologies are characteristically elastic, a feature Reinhard Koselleck would later note when he proposed "ideologizability" as a key characteristic of modern "basic concepts." Pre-modern cultural value systems, by contrast, were allegedly more closely bound to concrete social roles of behavior: one simply knew how "a father, a doctor, [or] a soldier" was supposed to act in certain situations.[44] In complex societies with roles loosened from concrete individuals and ever-new situations arising beyond the pale of experience, ideologies had to offer flexible rules of conduct to help orient action.[45]

The rational function of ideology held even if the values ideology espoused expressed dangerous irrationalities. Luhmann cited the Nazi belief in the superiority of the Nordic races as an example of an ideology that relied on a single irrational or false "peak value" to organize reality, making an obscene irrationality into the basis of an attempt rationally to reconstruct a social order.

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[41] Luhmann, 75.
[42] Luhmann, 76.
[43] Luhmann, 78.
[44] Luhmann, 79.
[45] Luhmann, 80.

But even less extreme examples served the same purpose. Ideology had also enabled the "technicization of the labor world" during the nineteenth-century era of Western European industrialization and in twecentury Russia only by "neutralizing" the "other consequences"—in this case, extraordinary levels of human suffering—in favor of the more highly valued consequences of industrialization and capital accumulation.

Luhmann's argument that all ideologies are functionally equivalent to one another therefore had nothing to do with their *moral* equivalence. It only meant that, for any specified functional problem, multiple solutions exist and can be made available to the "planners of ideology." Luhmann's examples further suggest that he was already concerned in 1962 to avoid the impression that his theory entailed a crypto-normative endorsement of major tenets of modernization theory. Just because ideology once had and continued to play a prominent role in the rationalization of modern society did not mean that it was necessary: this is why Luhmann spoke of ideology as a functional equivalent of rational planning. Just as it would be "rational" for an organization to neutralize many of the consequences of a proposed action in order to make an intelligible decision regarding it, this by no means precluded sociology from deploying its own rationality to expose the possibilities excluded by decision programs and highlight their unintended consequences. For these other possibilities are often of great consequence for the totality of the social system.

Far from an example of political "hypocrisy," the generic evil of human nature, "signs of a cultural crisis" or a "symptoms of a lack of authentic life content and of credible meaning"—terms that recall the ontological conception of truth—the opportunism of ideology simply corresponds to a structural imperative of modern society, for which ideology had proven itself a "vital [*lebenskräftig*]" component.[46] Any apparent incongruence between ideology and truth, Luhmann concluded, was due not to some deficiency on the part of the former, but to the traditional metaphysics according to which the latter was still posited. New criteria would have to be developed to account for ideology's contemporary vitality. A post-ontological possibilist functionalism appeared a promising avenue.

Luhmann certainly agreed with Daniel Bell and others who detected in the emerging postwar global order a convergence of social systems around the technocratic state management of society. But while he meant that the ideological *understanding* of the difference between the social systems of East and West had become bunk, he denied that ideology had lost its social function within modern political systems. "There can be no talk of the end of the ideological age," he concluded, but at most a recognition that "ideological zeal wanes (because it is no longer necessary), and is replaced by a routinized upkeep of ideological orientations."[47]

In light of these arguments, it is tempting to read the title of the essay "Truth and Ideology" as an attack on the former to the benefit of the latter. Such a reading is not entirely unwarranted. It would be more accurate, however, to identify the "truth" in Luhmann's title with its conception according to ontological metaphysics, rather than with some new functionalist account of truth. After all, within the essay Luhmann curiously avoided an attempt to develop a functionalist account of truth semantics. Aside from a brief cryptic remark in the final sentences of the essay, Luhmann would set aside the question of truth until near the end of the decade, once he had begun to develop a theory of symbolically generalized media and of the subsystem of science.[48]

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[46] Luhmann, 80.

[47] Luhmann, 80.

[48] Niklas Luhmann, "Selbststeuerung der Wissenschaft," in *Soziologische Aufklärung 1: Aufsätze zur Theorie sozialer Systeme* (Wiesbaden: VS Verlag für Sozialwissenschaften, 2009); Niklas Luhmann, "Soziologie als Theorie sozialer Systeme," in *Soziologische Aufklärung 1: Aufsätze zur Theorie sozialer Systeme* (Opladen: VS Verlag für Sozialwissenschaften, 2009).

» 4. Dethroning the Sovereignty of Ends « Luhmann's Critique of Weberian Bureaucracy

Perhaps nothing better represented the modern apotheosis of artificial rationality than that form Weber had described as the primary motor of modern rationalization: bureaucracy. As ideal-type manifestations of instrumental rationality, bureaucracies struck Weber as rigid forms of social organization, captured in the celebrated metaphor of the "iron cage." Like the scientific method, their mechanical and impersonal formality functioned to immunize bureaucracies against the whims of individual caprice, promoting the universal application of objectivity at the cost of freedom.

However, numerous studies of "informal organization," which had begun to revolutionize American social science since the 1930's, challenged many of Weber's assumptions by demonstrating the degree to which the functional organization of large industrial firms depended on highly flexible patterns of personal and intimate social interactions.[49] Charismatic leadership, for example, turned out to be an important component of rational bureaucratic organization, rather than a contrary principle. Different leadership "styles," these studies argued, have substantial impacts on patterns of organizational behavior, leading to the development of new fields of "management science."[50] (One result of this research, curiously, would be the highly influential "contingency theory of leadership," which a young Austrian-American organizational psychologist at the University of Illinois, Fred Fiedler, introduced to American management science in 1964.)[51]

So it should come as no surprise that one of Luhmann's first forays into organizational sociology addressed precisely this theme of organizational leadership. The 1962 essay "The New Chief," recently republished in Germany in a new slick paperback edition, explored the consequences for the theory of organizations posed by the unique challenges faced by an institution undergoing a change in leadership. In Weber's ideal typical bureaucracy, the central quality of impersonality suggested that the individual characteristics, style and quirks of the head of a department were virtually irrelevant, devoid of emotional significance for the other members of the organization.[52] Changes in leadership were therefore supposed to be perfunctory, formal, regular and unproblematic occurrences. But the empirical record simply did not support this claim. Although the slow evolution of systems of impersonal expectations would remain a signal achievement of modern bureaucracy, it could by no means operate without the contributions of informal institutions.[53] Among the varied informal dimensions of formal organizations, the specific qualities and techniques of leadership carried particular weight. "The new chief," Luhmann argued, is "one of the few problems of organization which in all rights can be assigned universal significance."[54]

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[49] Elton Mayo, Luther Halsey Gulick, and Elton Mayo, *The Early Sociology of Management and Organizations Volume 6, Volume 6,* (London: Taylor & Francis e-Library, 2004); Chester I. Barnard, *Organization and Management: Selected Papers* (Routledge, 2004); F. J. Roethlisberger and William J. Dickson, *Management and the Worker* (Routledge, 2004); Western Electric Company, *The Hawthorne Studies, 1924/1974: A Synopsis* (Western Electric, 1979); Oliver E. Williamson, ed., *Organization Theory: From Chester Barnard to the Present and Beyond*, Expanded ed (New York: Oxford University Press, 1995).

[50] Robert Tannenbaum and Warren H. Schmidt, *How to Choose a Leadership Pattern* (Institute of industrial relations, 1958); Robert Tannenbaum, Irving Weschler, and Fred Massarik, *Leadership and Organization (RLE: Organizations): A Behavioural Science Approach* (Routledge, 2013).

[51] Fred E. Fiedler, "A Contingency Model of Leadership Effectiveness," *Advances in Experimental Social Psychology* 1 (1964): 149–90.

[52] Niklas Luhmann, *Der Neue Chef*, ed. Jürgen Kaube (Berlin: Suhrkamp, 2016), 9; Max Weber, *From Max Weber: Essays in Sociology*, ed. Hans Heinrich Gerth and C. Wright Mills (New York: Oxford University Press, Galaxy, 1958), 199.

[53] Mayo, Gulick, and Mayo, *The Early Sociology of Management and Organizations Volume 6, Volume 6,*.

[54] Luhmann, *Der Neue Chef*, 10.

In many ways, Luhmann's description of the relationship of formal and informal organization in "The New Chief" prefigured how he would later describe the relationships between subsystems: as relatively autonomous, yet not excluding "connections and causal interactions."[55] Informally, an executive can come to have functions not prescribed by her formal duties; hence, a change in leadership can result in dramatic changes in the system of informal expectations constituting the organization, if the new executive cannot resume or revise these informal functions. In other words, this seemingly mundane problem seemed to call for far-reaching changes in the theory of organizational dynamics.

"Purpose—Domination—System" (henceforth *PDS*), published in 1964, represented Luhmann's first steps towards carrying out such a program. This essay grappled with Weber's approach to institutionalized rationality by critiquing the metaphysical presuppositions informing his famous studies of bureaucracy. As is well known, Weber had equated modern rationalization with the historical proliferation of task-driven bureaucracy structured by formal legal procedure.[56] PDS aimed to show how recent empirical research had gradually undermined many of central features of Weber's model of bureaucracy.[57] But it also argued that, under the auspices of systems theory, these diverse strands of research could help reconstruct a more robust functionalist systems theoretical version of Weber's project that could preserve its key insight into the connection between bureaucratization and modern rationalization.

The primary weakness of Weber's model, according to Luhmann, resided in its reliance on several interrelated basic concepts: purpose [*Zweck*, which will also be translated as "goal" or "end" depending on context], domination [*Herrschaft*], and "command" [*Befehl*]. Their inadequacy for grasping the function of bureaucracy was a consequence of their dependence on Weber's typology of action and its antiquated metaphysics. As discussed in the previous chapter, like most modern theorists, Weber comprehended action in causal terms as "effecting an effect," which could be rationalized according to the viewpoints of "purpose" and "value."[58] An action is thus rational whenever it intentionally brings about a desired "effect" aligned with a discrete purpose. The causal interpretation of rational-purposive action runs into difficulties, however, should one take into account the multiplicity of actors in any real social system. How can so many independent causal processes to be coordinated? And how can the researcher study them?

According to Luhmann, the concepts of "domination" and "command" served Weber as stopgaps to bridge the gulf separating individual actions and collective behavior. They offered communicative mechanisms for coordinating actions. In a system of domination, this coordination

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[55] Luhmann, 16.

[56] Weber, *From Max Weber*; Max Weber, *The Theory of Social and Economic Organization*, ed. Talcott Parsons, trans. A. M. Henderson and Talcott Parsons (New York: Free Press, 1964), 329–40.

[57] For a sampling of some of the major works that influenced Luhmann, see: Herbert A. Simon, *Administrative Behavior: A Study of Decision-Making Processes in Administrative Organizations*, 4th ed (New York: Free Press, 1997); Herbert A. Simon, *The New Science of Management Decision* (New York: Harper and Brothers, 1960); James G. March and Herbert A. Simon, *Organizations* (New York: Wiley, 1958); Peter M. Blau, *Bureaucracy in Modern Society* (New York: Random House, 1956); Peter M. Blau and W. Richard Scott, *Formal Organizations: A Comparative Approach* (San Francisco: Chandler Pub. Co, 1962); S.N. Eisenstadt, "Bureaucracy and Bureaucratization," *Current Sociology* 7, no. 2 (June 1, 1958): 99–124, https://doi.org/10.1177/001139215800700201; S. N. Eisenstadt, "Bureaucracy, Bureaucratization, and Debureaucratization," *Administrative Science Quarterly* 4, no. 3 (1959): 302–20, https://doi.org/10.2307/2390912; Amitai Etzioni, *Complex Organizations; a Sociological Reader* (New York: Holt, Rinehart and Winston, 1961); Renate Mayntz, *Soziologie Der Organisation*, Rowohlts Deutsche Enzyklopädie (Hamburg: Rowohlt, 1963); Michel Crozier, *Le Phénomène bureaucratique: Essai sur les tendances bureaucratiques des systèmes d'organisation modernes et sur leurs relations en France avec le système social et culturel* (Éditions du Seuil, 1963); Alvin W. Gouldner, *Patterns of Industrial Bureaucracy* (Free Press, 1964).

[58] Niklas Luhmann, "Kann die Verwaltung wirtschaftlich handeln?," *Verwaltungsarchiv* 51 (1960): 98; Niklas Luhmann, "Funktion und Kausalität," in *Soziologische Aufklärung* (Opladen: Westdeutscher Verlag, 1970).

is performed by the "command" form: I pursue an action because I am ordered to do it. I receive my ends from on high. *Why* I agree to obey these commands, however, is an open question. Sometimes simply an effect of fear or coercion, often times it is simply a function of what Weber and others describe in terms of legitimacy: I obey because, for one reason or another, I accept the command, and the system of domination it represents, as legitimate.[59] The types of legitimacy (traditional, charismatic, and rational) in turn, also derived from Weber's ideal "types" of action (habitual, emotive, and rational).[60] Bureaucratic legitimacy derived from its capacity to execute tasks rationally according to the instrumental ends/means schema.[61] Legitimacy, for Weber was a component of domination, and only one kind of legitimate domination could be deemed rational: "rational-legal" domination, conducted by a bureaucratic staff.[62]

Weber's model of the rationalization of domination developed out of his training as a jurist and his research into the great world bureaucracies. Modern social rationalization for Weber was usually presented as a form of realization of a narrower juridical rationality, which was at the same time always a *technical* achievement: "Empirical justice," in contrast to ad hoc and arbitrary "Kadi justice," Weber argued, "can be sublimated and rationalized into a 'technology.'"[63] Consequently, he treated the ideal type of a rational bureaucracy as little more than what cyberneticist Heinz von Foerster called a "trivial machine,"[64] a deterministic mechanical apparatus that will always behave predictably in line with fully transparent causal mechanisms.[65]

Weber was basically correct, in Luhmann's evaluation, to have viewed the categories domination and rationalization as problems of *communication*. The problem was that he had severely underestimated the complexity of communication in reducing it to the command form.[66] After all, "is command really the communicative form," Luhmann asked, that can "bear rationalization?"[67] The problem was not, as Habermas had complained, that Weber had reduced social communication to a mere *technical* form.[68] Cybernetics, information theory, and the various theories of communication emerging in their wake had convincingly demonstrated, as far as Luhmann was concerned, that communication *could* be given a technical description, not only by formalizing the concept of information, but also by revising the scope of the "technical" and the "mechanical."

The problem, for Luhmann, was simply a result of Weber's excessively narrow conception of the machine as a deterministic ordering of parts and wholes. Weber and classical organization

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[59] Weber, *The Theory of Social and Economic Organization*, 132.
[60] Weber, 124–32.
[61] "For bureaucratic administration is… always, from a formal, technical point of view, the most rational type." Weber, 337.
[62] The "purest type of exercise of legal authority is that which employs a bureaucratic administrative staff." Weber, 333.
[63] Weber, *From Max Weber*, 216.
[64] Heinz Von Foerster, *Observing Systems*, 2nd edition (Seaside, Calif: Intersystems Publications, 1984); Erich Hörl, "Luhmann, the Non-Trivial Machine and the Neocybernetic Regime of Truth," *Theory, Culture & Society* 29, no. 3 (May 1, 2012): 94–121, https://doi.org/10.1177/0263276412438592.
[65] "The decisive reason," Weber wrote, "for the advance of bureaucratic organization has always been its purely technical superiority over any other form of organization. The fully developed bureaucratic mechanism," he continued, "compares with other organizations exactly as does the machine with the non-mechanical modes of production." Weber, *From Max Weber*, 214.
[66] To be fair, Weber did spend time considering the importance of "modern means of communication" which served "as pacemakers of bureaucratization," including the railroad and telegraph, although it was a mere technical facilitator, a neutral medium, and not significantly theorized in itself. See Weber, 213.
[67] Niklas Luhmann, "Zweck — Herrschaft — System: Grundbegriffe und Prämissen Max Webers," *Der Staat* 3, no. 2 (1964): 132.
[68] Jürgen Habermas, *On the Logic of the Social Sciences*, trans. Shierry Weber Nicholsen and Jerry A. Stark (Cambridge, Mass.: The MIT Press, 1990).

theory had handled rationalization problems "as *purely internal processes*."[69] A machine could be said to "function" if all of its parts cooperate without deviation according to a 'pre-designed harmony' to perform according to their designer's intentions and specifications. Accordingly, Weber's had uncritically accepted the premise "that there is only one correct, ideal typical or optimal form of inner system rationality and that with the attainment of this inner rationality a harmonious relationship to the environment simultaneously sets in."[70] Precisely this assumption, however, had been challenged by cybernetics and systems theory.

Weber erred in assuming that technical forms of rationality necessarily aimed at achieving "optimal" outcomes. As Herbert Simon famously argued, construing rationality as the search for an optimum was a fool's errand, leading not only to sub-optimal, but also to sometimes downright negative outcomes. Simon, whose work will be discussed in more detail in Chapter Seven, had developed a famous mathematical model of the rationality of decision-making, for individuals, organizations, and individuals within the structured environment of an organization, which heavily influenced the development of modern behavioral economics. Against economists' normative image of the "*homo oeconomicus*" searching for perfectly *optimum* outcomes, Simon advanced an image of rational decision based upon the much more modest criterion of "*satisficing*:" the "first best" solution to a probkem. All cognitive systems, including human brains, bureaucracies and computers, necessarily rely on schemas that map reality according to relatively stable patterns. Humans, machines, and organizations alike only every have finite information and a finite amount of time in which to decide, and uncertain knowledge about the consequences of their actions in the future.[71] Since, even with access to perfect information, it is impossible to survey all possible actions in a finite amount of time, decision schemas help one look for the first best or satisfactory solution, since the futile search for the absolute best or "optimum" solution would waste the precious resource of time. Simon famously called this "bounded rationality." The "function" of an organization, accordingly, could not be understood in terms of the search for optimal solutions, but in its framing reality in order to make acceptable solutions.[72]

Closely related to his adherence to a model of rationality as optimization, Weber also cleaved to the presupposition that an internally rationalized system will necessarily maintain harmonious relationships with its environment. This, however, is precisely what the recent empirical literature on organizations had undermined. Beginning in the 1930's, North American sociological studies of large organizations had implicitly challenged Weber's reliance on the categories of purpose and command in his account of bureaucratic organization. For Weber and the classical normative theories of the industrial firm,[73] the identity of an organization as a "whole" could be best described in terms of its overarching purpose: private corporations aim at maximizing profit, and administrations aim to produce "publically binding decisions." All other tasks they carry out can be subordinated exclusively to attaining this highest goal, making the efficiency with which it carries out this task the measure of its rationality. Recent American empirical research on the informal dimensions of organizations had revealed, by contrast, that organizations use commands and purposes as variables, not constants: organizations can be rational, not insofar as they achieved

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[69] Luhmann, "Zweck — Herrschaft — System: Grundbegriffe und Prämissen Max Webers," 132.
[70] Luhmann, 132–33.
[71] Simon, *Administrative Behavior*; Simon, *The New Science of Management Decision*; Herbert A. Simon and Allen Newell, "Computer Simulation of Human Thinking and Problem Solving," *Monographs of the Society for Research in Child Development* 27, no. 2 (1962): 137–50.
[72] Herbert A. Simon, *Models of Man: Social and Rational; Mathematical Essays on Rational Human Behavior in Society Setting* (New York: Wiley, 1957).
[73] The classic example, Robert Michels, *Political Parties: A Sociological Study of the Oligarchical Tendencies of Modern Democracy* (New Brunswick, N.J., U.S.A.: Transaction Publishers, 1999).

declared purposes through efficient command structures, but rather to the degree they manipulate a variety of purposes and used commands sparingly in the course of fulfilling a much wider range of functions than Weber had considered.[74]

The most instructive of these critiques pointed to the ways in which organizations could harbor and advantageously employ seemingly contradictory purposes, each of which may be available for use in different situations, for example, in dealing with different systems in its environment.[75] An industrial firm carefully controls and varies the way it presents itself to the general public, to its investors, to its employees, and to its customers. Purposes do not unequivocally determine the parameters of an organizational action and so do not suffice to make decisions about how to act. They contribute to an organization's rationality only insofar as they preserve a wide scope of discretion for its members to decide how best to relate to them, permitting the unplanned development of "informal organization." In systems-theoretical terms, an organization's ends are only "loosely coupled" to the means selected to pursue them.[76] This looseness allows systems to vary their explicit, formal goals in light of existence-threatening changes in their environments without sacrificing their identity.[77]

Weber had also erred in tacitly assuming that purposes constitute an *essential* component of rationality as such. Not denying the rational function of purposes, however, Luhmann described this function as more akin to a post-facto "rationalization" (in the Freudian sense). Purposes are usually symbolic, secondary elaborations of actors' self-understanding. They function as a device to help agents orient themselves in the world and coordinate their actions with others by offering a clear and publically recognizable symbol that affords consensual recognition. They provide those in the organization's environment, for example, with a representation of the unity of the organization, simplifying access to its functions and structuring expectations about its behavior.[78] Internally, the visibility of purposes can provide an anchor for coordinating activities between members of an organization. But they are neither necessary nor sufficient to account for such coordination. Weber was thus forced to look elsewhere for supplements to his ends-means schema in order to make purposes communicable and meaningful.[79]

The command form offered Weber precisely such a supplement to tether together social actions in light of common goals. Certainly, Weber conceded that means couldn't simply be derived from ends with absolute logical necessity. But any equivocation can (and for sake of rationality, *must*) be eliminated through the rigidly hierarchical communication form of the command: decisions can be communicated in but one direction—downwards—to specify the actions (means) to be used in achieving the purpose. Under closer scrutiny, however, the concept of command as a vertically asymmetrical channel of communication of decisions about actions suffers from a similar set of conceptual weaknesses as the concept of purpose.

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[74] Mayo, Gulick, and Mayo, *The Early Sociology of Management and Organizations Volume 6, Volume 6,*; Blau, *Bureaucracy in Modern Society*; Blau and Scott, *Formal Organizations*; Williamson, *Organization Theory*.

[75] Luhmann, "Zweck — Herrschaft — System: Grundbegriffe und Prämissen Max Webers," 136.

[76] Luhmann, 135.

[77] Luhmann, 137–38.

[78] Ibid., 138; This will be elaborated in my exposition of Luhmann's major work on formal organization, *Funktionen und Folgen formaler Organisation* (Berlin: Duncker & Humblot, 1964).

[79] "Where Ihering speaks of purposes, Weber speaks of meaning (*gemeinter Sinn*). But Weber uses this term interchangeably with 'purpose.' When he discusses explanatory understanding, by which he means understanding of motives, he uses 'meaning.' If we recognize the close connection between 'meaning' and 'purpose' in Weber's own account, the parallels between Weber and Ihering become clear." Stephen P. Turner and Regis A. Factor, *Max Weber: The Lawyer as Social Thinker* (London ; New York: Routledge, 1994), 29.

First of all, subordinates tend to engage much more directly with the problems confronting an organization than their supervisors, and often have much closer contact with the environment. The command form only encompasses a very small range of the activities of an organization. A remnant of scholastic metaphysics lurks in the background in every assumption that the "higher" contains or encompasses the lower. The vast majority of an organization's contact with the environment, by contrast, is actually processed by its subordinates, requiring the (often informal) delegation of decision-making capacity to subordinates. Day-to-day interaction between an organization and its environment is not usually "steered" from the system's imaginary apex.

Second, the "formal" model of a command structure rarely reflects the actual flow of power in an organization. In reality, influence regularly flows upwards and horizontally: subordinates often demand decisions from their superiors, thus prompting and framing the terms of the decision to be made. For these reasons, Luhmann argued, "command, the immediate translation of authority into communication, is far too simple as a structural category to be able to satisfy the complex presuppositions of preservation and rationalization of a social system."[80] The mechanical, "linear causality" it implied, was just too rigid to deal with such complex social systems.[81]

» 5. Formal Organizations «

Luhmann's major monograph from 1964 can be read as an extended systems-theoretical reconstruction and expansion of the Weberian model in light of the critique made in "Purpose—Domination—System." *Functions and Consequences of Formal Organization* has sometimes been considered the central work of Luhmann's early period at Speyer, due to its length, depth and seemingly exhaustive reach in the field of organizational science. The book develops in detail several of the same basic themes found in the other two essays from 1964, but paints a far more detailed picture of the features of complex organizations against the background of research into informal relations and the development of systems theory. It also expends considerable effort developing the fundamental sociological themes that extend beyond the purview of administrative and organizational research, such as role differentiation, the meaning and structure of action, and the formation and stabilization of system boundaries. Although less concerned with the question of the *rationality* of mechanisms of social order and decision-making than the other texts treated in this chapter (and hence, why I only devote a few pages to this 400 page text), the book lays out in great detail the general systems theoretical dimensions of the meaning of "order" as a function of self-stabilization, and is one of Luhmann's earliest texts to use Husserlian phenomenology to begin to describe this process in terms of the ordering of experience through intersubjective meaning.

"Formal organizations" offered Luhmann a useful test case for working out the functionalist approach to social systems. Having already digested the famous American studies on informal organization, he could return to the question of the function of *formal* organization with fresh eyes. The discovery of informal organizations, for Luhmann, revolutionized a domain of science by undermining the conviction that organizations could be best understood in terms of their own formal self-descriptions. Still lacking, however, was a theory able to recombine the insights gained through these empirical studies with the undeniable world-historical significance of the development of massive and complex formal organizations.[82] Formality was still a decisive aspect of large and

[80] Luhmann, "Zweck — Herrschaft — System: Grundbegriffe und Prämissen Max Webers," 146.
[81] Luhmann, 147.
[82] To be sure, Parsons and Simon had already worked on the problem, and agreed with Barnard that formal organization represented "the principal structural aspect of society." Chester I. Barnard, *The Functions of the Executive* (Cambridge:

complex organizations. It just wasn't everything.[83] The previous decade of research on organizations had, unfortunately, more or less left behind the question of the function of formality, taking for granted Weber's model, in which the organization gained and stabilized its identity through subordination to a common purpose. These studies viewed informality as a necessary supplement, a corrective, and not as a complete rejection of the Weberian model. Still needed was a common denominator to bridge research on formal and informal organization.

The first step involved defining and describing the precise function of formality. Weber had focused on the use of legal domination to describe the formal parameters of a bureaucracy. But this was already too concrete, too limited to the political system. Most previous definitions too had followed Weber in seeing formality as a "conscious orientation to a common purpose," or a "means of rational domination through formulated rules fixed in writing."[84] For Luhmann, the key dimensions of formality resided, not in juridical rules or the common purpose, both of which presuppose that everyone in an organization shared a particularly "thick" and rigid self-understanding, but in the elastic and abstract concepts, described in his discussion of functional abstraction, of generalized expectations and membership roles.

Organizations are 'composed' not of persons, actions, or experiences—all of which figure as central variables of such social systems—but to a large degree out of what Talcott Parsons designated "generalized expectations." "All system problems," Luhmann argued, "can be ultimately led back to the stabilization of expectations."[85] These provide the mechanism—or better yet, the *medium*—through which a social system maintains its identity by securing the "relative invariance" of its always-problematic boundaries. Unlike persons or actions, which are always tethered to a concrete, substantial, and therefore relatively inflexible entity in space and time, expectations are temporalized, communicable abstractions, which help establish a coordinated social network relatively independent of the concrete individuals involved. "Behavioral expectations," Luhmann concluded, "are the ordering element in every system of action."[86] Ego's expectations are expectations of alter's expectations of ego's behavior. Every action intends an effect in the future under a specific viewpoint, an expectation that something will result from behaving in a particular manner. And actions only take place within a system through which one anticipates the possible consequences of a specific mode of behavior in terms of the expectations of others. Such "reciprocal behavioral expectations" are a basic fact of all "human cohabitation."[87]

Generalization, in turn, formed the primary mechanism for *stabilizing* expectations in modern functionally differentiated society. Although the concept as used by Parsons and Luhmann derived from behavioral learning theory, as a means through which the cognitive individual is able to achieve a certain homeostatic independence from environmental disturbances,[88] both sociologists believed the mechanism could be applied to social systems to help explain how they develop in the first place.[89] Put simply, generalization entails an additional layer of abstraction on top of that already constituted by expectations. It abstracts away from the concrete particulars of actions, perceptions, desires motivations or communications, and proffers rules to orient behavior in situations that differ

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Harvard University Press, 1968); quoted from Hunter Crowther-Heyck, *Herbert A. Simon: The Bounds of Reason in Modern America* (Baltimore: Johns Hopkins University Press, 2005), 117.

[83] Luhmann, *Funktionen und Folgen formaler Organisation*, 31.

[84] Luhmann, 31–32.

[85] Luhmann, 27.

[86] Luhmann, 26.

[87] Luhmann, 34.

[88] Talcott Parsons, Edward Albert Shils, and Neil J. Smelser, eds., *Toward a General Theory of Action: Theoretical Foundations for the Social Sciences* (Transaction Publishers, 1965).

[89] Luhmann, *Funktionen und Folgen formaler Organisation*, 55–56.

in many respects. Specific expectations are just too easy to disappoint: the more generalized they become, the more environmental states, and therefore the greater *variety* of possible experiences they are able to encompass. In order to manage an infinitely variable environment, social systems increasingly come to depend on generalized expectations for their continued reproduction.

Formalization, in turn, is but one specific variant of generalization. Formal organizations are constituted by giving explicit, mutually understood formal regulations to guide and structure the network of generalized expectations. Formality does not substitute for "concrete and lived [*lebensnah*]… behavior," but rather emerges as a means of managing its consequences.[90] The division of labor in large and complex organizations can lead to their decomposition into "smaller, intimate worlds," whose coherence derives only from personal emotional bonds. Such decomposition can threaten the activities of large organizations because these intimate worlds tend to become insular and resistant to external pressures.[91] Formalization tries to attenuate the consequences of this decomposition by visibly and explicitly mapping the minimum behaviors required for continued *membership* in the organization, while nonetheless remaining loose enough to permit the persistence of personal worlds within specified limits.[92]

Membership, the second key category of the theory of formal organizations, helped Luhmann clarify the contours and meaning of the mechanism of formal generalization. Formal organizations use explicit, formal rules to delimit their system/environment boundary, entry/exit rules determining who or what belongs inside and outside the system. These formal conditions of belonging are usually described as "membership roles." Membership is a symbol for a role composed of a cluster of *formal* duties and rights, the more or less regular fulfillment of which constitutes the condition of one's continuing membership in the organization. Formality in the domain of membership roles simply means that expectations are consensually held, clearly prescribed and that continued membership depends on recognition of and adherence to their strictures. "Formal organization," in short, "is the complex of these expectations. It consists of the membership roles that define the behavior expected of a member as such."[93]

Membership roles regulate the boundary of the system through a radical simplification. In defining the boundary through entry/exit conditions, membership roles function as a form of *binarization*, a technique that will reappear time and time again in Luhmann's theory as a primary means by which systems simplify their self-descriptions, enabling decisions to be made by its members.[94] The binarization of entry/exit conditions enhances the benefits of functional differentiation. Because membership does not govern the behavior or identity of an individual as a concrete whole, but only encompasses behaviors in specific contexts, roles can be specialized, differentiated and oriented to more specific tasks and expectations, enabling a system composed of

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[90] Luhmann, 83.

[91] Luhmann, 83.

[92] This resembles very closely arguments made about the rise of modern forms of the rule of law, the abstractness of which enables both the equal treatment of all individuals (in theory) while also creating the space for the cultivation of unique individuality. Habermas, for example, wrote that "These rules, because they remained strictly external to the individuals as such, secured space or the development of these individuals' interiority by literary means." Jürgen Habermas, *The Structural Transformation of the Public Sphere: An Inquiry into a Category of Bourgeois Society*, trans. Thomas Burger and Frederick Lawrence, Sixth Printing edition (New York: The MIT Press, 1991), 54.

[93] "*Wir wollen eine Erwartung daher als formalisiert bezeichnen, wenn sie in einem sozialen System durch diese Mitgliedschaftsregel gedeckt ist, d. h. wenn erkennbar Konsens darüber besteht, daß die Nichtanerkennung oder Nichterfüllung dieser Erwartung mit der Fortsetzung der Mitgliedschaft unvereinbar ist.* Ein soziales System ist formal organisiert in dem Maße, als seine Erwartungen formalisiert sind. Formale Organisation ist der Komplex dieser formalen Erwartungen. Sie besteht aus den Mitgliedsrollen, die das Verhalten definieren, das von einem Mitglied als solchem erwartet wird." Luhmann, *Funktionen und Folgen formaler Organisation*, 38.

[94] Compare to the discussion of "digitalization" in Collins, *Artificial Experts*, 22–29.

members with different roles to fulfill a greater number of tasks. And the organization does not have to worry about the specific motivations of each individual, the reasons *why* they belong to the organization, so long as they recognize fulfill the formal duties expected of them, making it easier for members to quit or be fired without significantly impairing the system or the individual.[95] The system can count on its members to fulfill their obligations without having to take account of the complex individual motivations, without having to understand in each case *why* its members decide to act in accordance with the expectations of the organization.[96]

In essence, the formalization of entry/exit conditions harbors an enormous potential for rationalization. This distinction enables organizations to regulate their system/environment boundaries, but not, as it may appear at first glance, because members belong to the system and non-members to the environment. In fact, *both* belong to the environment. It is rather because the ability to preserve its own boundaries in and through the constant change of personnel bolsters the system's autonomy and stability against an environment constantly in flux. A formal organization as a system is not *composed* of its members, but of the expectations and norms that govern its boundary: "system formation, boundary definition and the stabilization of expectations," Luhmann concluded, "are different aspects of a unified ordering process."[97]

In appealing to the stratum of expectation and experience, Luhmann appealed to a phenomenology of bureaucratic experience and existence to help develop the foundations of a theory of social order. Itself a highly formalized philosophical science, phenomenology provided Luhmann with a set of rigorously honed conceptual tools for describing the function of formality in ordering expectations as a kind of world-making. Citing Maurice Merleau-Ponty, Luhmann described the meaningful structuring of perception in terms of the play of the visible and invisible.[98] The visible can symbolize the invisible, while assumptions about what cannot be seen give contours to what can be seen: "The door, behind which sits the general director, looks different than the door which leads to his antechamber."[99] The dialectic of visibility gives structure to public spaces, essential for regulating human behavioral expectations in complex organizations.[100]

By linking visibility to publicity, an insight likely inspired by his reading of John Dewey,[101] Luhmann aimed to overcome one of the central obstacles inhibiting the advancement of phenomenological sociology. Husserlian phenomenology had long suffered from the shortcomings of its monadological starting point, most notably in its failure to account for the structures of intersubjectivity. The closed, immanent self-referential plane of consciousness with which Husserl began proved unable to ever reach beyond itself to "the Other."[102] Attempts to rectify this were made as early as the 1920's, when Austrian philosopher Alfred Schutz first began to repurpose

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[95] Echoing both Simon and Gehlen's work on institutions in equal measure, formalized expectations of membership also "disburden" the individual of "a personally unbearable risk in the realm of social action"—basically, formal organizations appear like forms of limited liability companies, enabling one to "take on more complex responsibilities" when the fruits of success are not immediately forthcoming. Luhmann, *Funktionen und Folgen formaler Organisation*, 61.
[96] Luhmann, 89–108.
[97] Luhmann, 60.
[98] Maurice Merleau-Ponty, *The Visible and the Invisible*, ed. Claude Lefort, trans. Alphonso Lingis, 1st edition (Evanston: Northwestern University Press, 1968).
[99] Luhmann, *Funktionen und Folgen formaler Organisation*, 50.
[100] Around the very same moment, cybernetics had begun to reconfigure epistemology around the theme of "visualization" of data and information flows. See the excellent Orit Halpern, *Beautiful Data: A History of Vision and Reason since 1945* (Duke University Press, 2015).
[101] John Dewey, *The Public and Its Problems: An Essay in Political Inquiry*, 2nd ed. (Chicago: Gateway Books, 1947).
[102] A particularly influential critique would be published in 1965 by philosopher Michael Theunissen, see, *Der Andere*, (Berlin; New York: de Gruyter, 1981); Michael Theunissen, *The Other: Studies in the Social Ontology of Husserl, Heidegger, Sartre and Buber*, trans. C. McCann (Cambridge, Mass: MIT Press, 1984).

Husserl's phenomenology to address and reconstruct what he saw as Max Weber's ambiguous use of the concept of "meaning" [*Sinn*].[103] Instead of beginning with the experience of meaning for an individual and trying to discern its structure, Schutz, anticipating Merleau-Ponty, tried to formulate a theory that could describe how the intersubjective structuring of perceptions and expectations called "meaning" enabled the individual to make her way in the world—what Weber and Parsons had described as "orientation," and which Mannheim and Luhmann assigned the function of ideology.

The horizons of generalized expectations, which operate through the field of *meaning*, form the boundaries of the system and the roles of its members, both of which reciprocally define one another. The expectations that make up membership roles are also constitutive of the system as a whole. While they organize the experience of the individual, they do not derive from the transcendental consciousness of the individual, but are rather defined in the intersubjective space of the organization. They facilitate intersubjective cooperation and coordination insofar as they "harmonize experience along a prescribed path."[104] Formalization marks out clear boundaries, guide-posts for orienting action, that are both highly visible to all participants, but which are at the same time also sufficiently generalized as to permit a wide range of suitable behaviors, actions, and motivations. What is visible to some does not have to be visible to others; by making an issue invisible to others, it "disburdens" them from the need to concern themselves with it. They can simply presuppose that others will take care of it without having to turn their attention towards it, to "select" it from the range of possible experiences. This intersubjectively-distributed patterning of "visibility" in the medium of generalized expectations achieves a kind of rationalization which Luhmann, surprisingly, described with the ontological (and Leibnizian) language of "harmonization."[105] And roles, as a mode of distributing competencies for visibilities and invisibilities, are but one particularly significant principle by which the freedoms of the actors in an organization can be "harmonized."

» 5. Normativity and Responsibility «

Parsonian sociology had usually reserved the concept of "norms" to describe the basic mechanism by which expectations are socially coordinated or "harmonized" with one another in the formation of social order. For Parsons, an implicit consensus over the content of background norms was simply a prerequisite of all social order. The "always-already" of shared norms and value systems had been systematically neglected in most answers to the transcendental question of society first posed by Hobbes: how is social order possible? Durkheim had been one of the first clearly to articulate the reliance of all forms of social order on a normative order irreducible to the rational interests of several individuals. The concept of prior "value consensus" was Parsons's means of short-circuiting the Hobbesian problematic, not unlike Hegel's *Sittlichkeit* in demonstrating that commonly held norms must always be in place before anything like conflicts of interest can arise—and especially before individuals can decide to enter into contractual relationships with one another.

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[103] Alfred Schutz, *The Phenomenology of the Social World* (Northwestern University Press, 1967); Alfred Schutz, *On Phenomenology and Social Relations: Selected Writings*, ed. Helmut R. Wagner (Chicago: University of Chicago Press, 1970); Alfred Schutz and Thomas Luckmann, *The Structures of the Life-World* (Northwestern University Press, 1973); Helmut R. Wagner, *Alfred Schutz: An Intellectual Biography*, The Heritage of Sociology (Chicago: University of Chicago Press, 1983).
[104] Luhmann, *Funktionen und Folgen formaler Organisation*, 52.
[105] Luhmann described a "harmonization effect, which is achieved through the selection of perceptions and notable causal factors out of the panoply of the perceptively and logically possible, finds a complement in the interpretation of the invisible or the situationally non-visible. For the ordering of the visible, recourse to the invisible, to underlying assumptions, is imperative." Luhmann, 51.

Despite his use of the Parsonian terminology of generalized expectations, Luhmann found Parsons's solution to the problem of social order unsatisfying. The idea that individuals must hold identical beliefs in common in order to cooperate, he argued, could not account for the *normativity* of norms. That is, it does not explain the force of norms, or explain why they are maintained. It turns norms into mere beliefs that each individual just happens to share with others. It neither accounts for the why one feels bound by the norm, nor for nature of its "sharing." Luhmann, by contrast, held norms to be a kind of socially mobile, communicable abstraction, "temporally generalized expectations independent of individual cases," which are "stabilized against disappointment."[106] In other words, a norm is an expectation that retains some degree of constancy across time, even when reality fails to conform to it. Unlike cognitive expectations, the failure of which entail swift revision (i.e. "learning"), norms have much higher thresholds for revision in the face of disappointment.[107]

The factual and social dimensions of normative role expectations are similarly apt for formalization. Factually, members need to know which expectations "count" and which don't in pre-delineated contexts. And although an organization needs to be able to harbor contradictions and variations, its members should be able to count on a certain degree of consistency in what is expected of them. Socially, formalization designates the explicitness with which all members of an organization *would* consensually interpret and recognize a situation, should it arise, not only those who happen to be present at any given moment.[108]

Redefining norms as a subset of generalized expectations that are immunized against disappointment allowed Luhmann to describe them as both empirical facts and vectors of social rationality. Rather than setting out universal criteria establishing what counts as rational, norms evolve with social systems to simplify the environment and provide stable, yet revisable, orientations that facilitate communication. Such simplifications enable cognitive rationalizations to take place in other domains, relieved of the compulsion to revise expectations at every instant.[109] In making this argument, Luhmann merged insights from behavioral learning theory with Arnold Gehlen's anthropological institutionalism: norms not only contribute to an individual's cognitive orientation in the world, but they also offer emotional relief: they "disburden the individual from anxiety and risk."[110] This makes it possible, in turn, for generalized mechanisms such as "trust" to develop, which are essential to the functioning of modern social systems. Unlike personal and intimate familiarity, which enable social cohesion only in small group contexts, trust as a generalized normative expectation enables higher degrees of rationalization because it guarantees that certain tasks will be taken care of, that certain managers, officials, corporations, and strangers on the street will behave within certain generally acceptable parameters, that certain authorities have responsibility

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[106] Luhmann, 56–57.

[107] In fact, Parsons had described the formation of generalized expectations in terms of their function in regulating the problem of "double contingency," which he assumed was always already solved by common reference to norms. Given Luhmann's later turn to the semantics of contingency, it is all the more surprising that in his brief critique of Parsons in this text, Luhmann makes no mention of "double contingency," even though Parsons used it to describe the precise problem at hand. Parsons' concept of double contingency would not interest Luhmann until the latter had stumbled across the deeper theological and existential meaning, viewing it as a necessary complement to the theory of complexity circa 1970. Right around that time, Luhmann would pen an essay for a Festschrift for Parsons dedicated to that very problem, finding fault in Parsons' use of the term for the reasons described above, while rooting them in his neglect of the deeper meaning of contingency. The essay was not published, however, until 1976. See, Niklas Luhmann, "Generalized Media and the Problem of Contingency," in *Explorations in General Theory in Social Science: Essays in Honor of Talcott Parsons*, ed. Jan J Loubser et al., vol. 2, 2 vols. (New York, NY: Free Press, 1976).

[108] Luhmann, *Funktionen und Folgen formaler Organisation*, 63–69.

[109] Luhmann, 55.

[110] Luhmann, 61.

for certain actions and can be held accountable according to formalized expectations.[111] In short, trust makes possible social cohesion and cooperation in a "society of strangers."[112]

With his revised account of normativity, Luhmann turned to the meaning of the concepts of responsibility [*Verantwortung*] and accountability [*Verantwortlichkeit*]. Although it still carried a normative and ethical sense, the concept of responsibility, in Luhmann's mind, was best understood in functional terms. Drawing on Norbert Wiener's definition of information (as a measure of certainty rather than uncertainty, as Claude Shannon defined it), Luhmann defined responsibility as a "social mechanism of information processing" that enables decision-making under conditions of uncertainty by absorbing that uncertainty.[113] "Responsibility," he continued, "is the apparent informational value of a decision, the excess of information someone gives in comparison to that which he receives."[114] When I make a decision in a social context, the decision has informational value; it communicates something, which by definition reduces the uncertainty of others with respect to what is to be done. This is because a decision, in informational terms, is a "selection" of a one or a set of possibilities out of many more possibilities. If I select one out of two possibilities (turn left rather than right), this decision has much less informational value than if I select one out of fifteen possibilities (drive to the post office, and not the bank, the school, city hall, etc.). Responsibility, accordingly, is a measure of the degree of this reduction in uncertainty. This still resonates with our common sense about responsibility: I bear more responsibility for a decision when I have greater latitude to decide. But in a clear rebuke to what he viewed as the humanistic "ethical tradition" of action theory, Luhmann thus concluded that responsibility is not a "personal quality or achievement, let alone a virtue, but rather […] a problem of communication."[115] It is an attribution made by an organization in order to communicate certain expectations to its members with regard to their behaviors.

Luhmann was well aware that as his theory developed, it increasingly chipped away at the various commonplaces of European humanism. What that tradition had long held solid may not have melted into air—systems are never so entropic!—but from the perspective of humanism's underlying ontology, its values had become so rarefied in Luhmann's hands they may as well have ceased to exist. Concepts like "trust" and "responsibility" lost the dignity they had been accorded by classical humanists. Norms and values no longer appeared rooted in some basic ethical stature of the human individual, let alone in the structure of the universe. They had become technical instruments of an impersonal system of expectations giving form to the individual's world. These systems, moreover, were not only impersonal, they could only have but the most spectral existence. Consonant with the conclusions of the essays on functionalism, *Functions and Consequences* projected an image of systems as ontologically vaporous: "Action systems are not substantial, impenetrable blocks, but rather complexes of events, which preserve meaning and delimitation through different structures of expectation. Their boundaries are the boundaries of the expectability of actions."[116] But if social systems are not made up of concrete human beings, constituted out of their meaningful and

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[111] Luhmann, 71–73; Niklas Luhmann, *Vertrauen: eine Mechanismus der Reduktion sozialer Komplexität*, 2nd edition (Stuttgart: Enke, 1973); Niklas Luhmann, "Trust: A Mechanism for the Reduction of Social Complexity," in *Trust and Power: Two Works*, ed. Tom Burns and Gianfranco Poggi, trans. Howard Davis, John Raffan, and Kathryn Rooney (Chichester; New York: Wiley, 1979); Janne Jalava, "From Norms to Trust: The Luhmannian Connections between Trust and System," *European Journal of Social Theory* 6, no. 2 (May 1, 2003): 173–90.

[112] A notion dating back to the "classical" 20th century social theorists, especially Georg Simmel, this term has been recently used by Marinus Ossewaarde, "Cosmopolitanism and the Society of Strangers," *Current Sociology* 55, no. 3 (May 2007): 367–88; James Vernon, *Distant Strangers: How Britain Became Modern* (Berkeley: University of California Press, 2014).

[113] Luhmann, *Funktionen und Folgen formaler Organisation*, 174.

[114] Luhmann, 175.

[115] Luhmann, 175.

[116] Luhmann, 60.

willed actions, what does this entail for the human? Or, as Luhmann phrased it, this was the question of "how the human in a formal system, which operates according to its own logic, can remain human, that is, can act rationally in the sense of his determination."[117]

» 6. Administering the Infinite « Roles, Rationality and Human Freedom

Part One opened with a reflection on the prescience of Robert Musil's novel *The Man without Qualities* with respect to the kind of ontological possibilism Luhmann would channel into the conceptual structure of his functionalist systems theory, hinting as well at the common Leibnizian concerns nourishing their projects. But I'm far from the first to suggest the existence of an inner affinity between the concerns of midcentury German sociology and Musil's images of the "man without qualities" and "sense of possibility." Both Ralf Dahrendorf and Austrian-American sociologist Peter Berger, one of Alfred Schutz's students, drew attention to the links between modern sociology and the most vivid motifs of Musil's novel. Dahrendorf commented on the links between the *homo sociologicus* of role theory and the "man without qualities," while Berger drew attention to the plurality of social realities cohabiting in the meaningful world of modernity as a case of Musil's "sense of possibility."[118] More recently, Ingrid Berger has drawn parallels between Musil and Luhmann, emphasizing the concept of contingency at the heart of both subjective and ontological registers.[119]

Writing in 1958, Dahrendorf argued that sociology in the era of "role theory" had provided a modern iteration of ancient tradition of defining human nature: alongside its modern siblings *homo oeconomicus* and what Freudian interpreter Philip Rieff called "psychological man," sociology had ushered into existence *homo sociologicus*, a concatenation of disparate social roles or "masks," in Erving Goffmann's terms, whose various and often contradictory demands each individual had to learn to navigate as part of the ordinary travails of modern social existence.[120] All these personas could never exhaust, let alone approach the essence of human individuality. "However much we may turn and apply *homo sociologicus*," Dahrendorf lamented, "we will never succeed in turning him into a determinate individual, who is our friend, colleague, father or brother. *Homo sociologicus* can neither love nor hate, neither laugh nor cry. He remains a pale, half, strange, artificial human."[121]

Sociology's contemporary conundrum had deep historical roots. Since its beginnings in the Scottish Enlightenment, Dahrendorf argued, sociology had understood itself to be a science dedicated to the promotion of individual freedom. At the same time, its "scientific" impulse tended to undermine the nobler proclivities of its humanistic core. By 1958, he lamented, a situation had come to pass in which "sociology has paid for the exactness of its assumptions with the humanity of

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[117] Luhmann, 382.

[118] Ralf Dahrendorf, *Homo sociologicus: ein Versuch zur Geschichte, Bedeutung und Kritik der Kategorie der sozialen Rolle* (Wiesbaden: VS Verl. für Sozialwissenschaften, 2006); Peter L. Berger, "The Problem of Multiple Realities: Alfred Schutz and Robert Musil," in *Phenomenology and Social Reality*, ed. Alfred Schutz and Maurice Alexander Natanson (The Hague: M. Nijhoff, 1970), 213–233.

[119] Ingrid Berger, *Musil mit Luhmann: Kontingenz - Roman - System* (München: Wilhelm Fink Verlag, 2004); Berger, "The Problem of Multiple Realities."

[120] P. Rieff, "Reflections on Psychological Man in America before Freud and After," *What's New* 220 (1960): 17–23; Erving Goffman, *The Presentation of Self in Everyday Life* (Edinburgh: University of Edinburgh, 1956).

[121] Dahrendorf, *Homo sociologicus*, 87; For some of the earliest and most penetrating discussions of this, see Georg Simmel, *On Individuality and Social Forms*, ed. Donald N. Levine, 1st edition (Chicago; London: University of Chicago Press, 1972).

its intentions and has become a thoroughly inhuman, amoral science."[122] Far from an exogenous pressure or mere aberration belonging to the technoscientific postwar era, sociology's methodological antihumanism was, in fact, an intrinsic outgrowth of its original project.

The ambivalence Dahrendorf detected in sociology, however, was clearly no disciplinary idiosyncrasy. It reflected those two apparently irreconcilable images of the human creature just as Kant had formulated them in the third antinomy of the *Critique of Pure Reason*: "Is the human a social being, determined in its behavior and therefore calculable and controllable?" Dahrendorf asked, "Or is it that unique being, capable of autonomy and freedom?"[123] This contradiction had more or less become the fate of sociology. Dahrendorf was less than optimistic about its prospects.

To the more radical and resolute theorists of the humanist Left, including Gouldner and Habermas, the apparently irresolvable contradiction in the sociological Weltanschauung between determinism and freedom, fate and utopia, was not itself a higher-order fate, but instead a contingent product of history, and hence one that could be overcome through a better, more reflexive sociology. They resisted what others perceived as the inevitability of sociology's "distancing effect," and winced at the objectivism of any theoretical strategy that bracketed out subjective interiority, viewing such attempts as a denial of the possible reality of human freedom.

Philosophically, these were pretty well worn problems. The relationship between rational-causal determinism and free, spontaneous autonomy had occupied the German Idealists under the heading of "freedom and necessity." The concept of freedom, in particular, had been the "keystone," in Dieter Henrich's words, of reason in Kant's system,[124] bridging the static totality of the categories of the understanding and the demands of perpetual progress in eternal pursuit of its regulative ideals, the "free causality" of practical reason reuniting the intellectual and sensible worlds, much like the Neo-Platonic account of Christ as the finite instantiation of the infinite.[125] But the terms in which German Idealism tackled this problem derived from a philosophical situation marked by that exposure to the reality of cosmic infinity discussed in Chapters One and Three.

There is a striking irony in the fact that Luhmann appropriated Cassirer's humanist reading of Leibniz's metaphysics of autonomy and spontaneity to develop a post-humanism perhaps even more radical than Heidegger's. But much like his distillation of a new functional method, Luhmann did not portray his interest in the question of autonomy as an *absolute* break with the philosophical tradition. Instead, he seems to have viewed it as the further development of already existent yet latent kernels of contemporary thought that corresponded to the complex world of functional differentiation, a procedure benefited by the careful removal of the lingering husk of a metaphysics that had become anachronistic and inadequate.[126] The image of the human being implied by role theory, for example, and which so disturbed Dahrendorf, was for Luhmann a direct correlate of functional differentiation. Concrete human individuals do not inhabit social systems. That is, they are not "parts" of the social system, but belong instead to its environment. Roles, as congealed bundles of communicable behavioral expectations, however, *do* belong to the system, since system boundaries, at least at this stage of Luhmann's work, were composed of nothing more than

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[122] Dahrendorf, *Homo sociologicus*, 89.

[123] Dahrendorf, 89.

[124] Dieter Henrich, "Freedom as the 'Keystone' to the Vault of Reason," in *Between Kant and Hegel: Lectures on German Idealism*, ed. David S. Pacini (Cambridge, Mass: Harvard University Press, 2003), 46–61.

[125] "The infinite passes over to the finite on this path and the finite returns on it back to the infinite. The whole process of *redemption* is included in it: it is the Incarnation of God, just as it is the deification of man." Ernst Cassirer, *The Individual and the Cosmos in Renaissance Philosophy* (Mineola, N.Y: Dover Publications, 2000), 9.

[126] Structurally, this procedure resembles Rudolf Bultmann's theory of the demythologization of Christian theology and the recovery of its kerygma. Rudolf Bultmann, *Kerygma and Myth; a Theological Debate. With Contributions by Rudolf Bultmann*, ed. Hans Werner Bartsch (London: S.P.C.K., 1964).

reciprocally stabilized and communicable expectations. Such systems ascribe "personhood" to concrete individuals, as the ostensible bearers of an often-incoherent multiplicity of roles. But it is important not to take such personhood as just another expression for the individual.[127]

Luhmann's systems theory, in taking extreme distance from the plane of lived experience, did not deny the existence or sociological relevance of human beings or subjective interiority tout court; rather, only such distance, Luhmann argued, could enable "the comparative method and system/environment theory" to "understand actors in light of the rationality possible for them," thereby putting them in a "better position to portray the unity of the world of theory and praxis."[128] For example, confronting a lack of social consensus concerning how roles ought to relate to one another, an individual might experience her various roles as mutually "conflicting," generating so-called "secondary problems," which led in turn to more generalized dysfunctions and often, therefore, to new functional differentiations. For Luhmann, such secondary problems, the "manifest" dysfunctions of everyday life, were merely epiphenomena that point back towards the often more fundamental "latent" functions and dysfunctions of the social system.[129] "For this secondary problem," Luhmann wrote, "there are compensatory solutions," for example, "in the striving for the top, or for security; in hobbies or in alcohol." In other words, they provoked solutions liable to produce further dysfunctions.[130]

Luhmann consciously tried to waterproof his functionalist systems theory so it could safely navigate the troubled strait between free will and determinism. Unlike Weber and Parsons, who deliberately attempted to back away from and evade the metaphysical tradition, Luhmann attempted to deconstruct and reconstruct the very form of through which constituted his own theory. Free will and determinism did not completely disappear as problems, but their basic terms were redefined within an evolving, self-referential theoretical totality. Far from denying human freedom, Luhmann thought, systems theory could actually preserve it by providing it with new, post-metaphysical foundations: "the functionalist method," he averred, "is compatible with the freedom of action, indeed, it presupposes it. The opposition of determinism and indeterminism is an ontological problem. Functionalist thinking will probably require a new determination of the essence of human freedom" in order to break with a rationalism founded upon the liberal-humanist ideal of subjective interiority, self-possession, and spontaneity.[131] Luhmann never explicitly attempted to develop this "new determination of the essence of human freedom," in part because he increasingly aimed to purify his systems theory of its lingering traces of humanism, especially after the so-called "autopoietic turn" to a theory of operationally closed systems in the 1980's.[132] But even then, he tried to justify his claim that there are no human beings in a social system with reference to ethical criteria of freedom:

> [T]he distinction between system and environment offers the possibility of conceiving human beings as parts of the societal environment in a way that is both

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[127] Luhmann would later distinguish "psychic system," akin to Parsons's "personality systems," from social systems, but emphasized that the former do not belong to the proper purview of sociological theory because of their monadic self-referentiality.

[128] Niklas Luhmann, "Funktionale Methode und Systemtheorie," in *Soziologische Aufklärung 1: Aufsätze zur Theorie sozialer Systeme* (Wiesbaden: VS Verlag für Sozialwissenschaften, 2009), 59.

[129] Luhmann, 51–52.

[130] Niklas Luhmann, "Funktion und Kausalität," in *Soziologische Aufklärung 1: Aufsätze zur Theorie sozialer Systeme* (Wiesbaden: VS Verlag für Sozialwissenschaften, 2009), 25.

[131] Luhmann, 34.

[132] Niklas Luhmann, *Social Systems*, trans. John Bednarz Jr. and Dirk Baecker (Stanford, CA: Stanford University Press, 1995).

> more complex and less restricting than if they had to be interpreted as parts of society, because in comparison with the system, the environment is the domain of distinction that shows greater complexity and less existing order. The human being is thus conceded greater freedom in relation to his environment, especially freedom for irrational and immoral behavior. He is no longer the measure of society. This idea of humanism cannot continue. Who would seriously and deliberately want to maintain that society could be formed on the model of a human being, that is, with a head at the top and so on?[133]

Elements of a possible theory of human freedom are also detectable in the link Luhmann drew between infinity and indeterminacy at the heart of his redefinition of functionalism. Infinity, especially once its position in his system became replaced by the imbricated figures of complexity and contingency, preserved a space for freedom and autonomy, while also presenting constant challenges to them. By demoting causality to the secondary status of a contingent technique, Luhmann's functionalism cleared away the principal threat to the concept of freedom in the modern rendering of ontological metaphysics. On the one hand, it put into question the entire moral and juridical semantics of the spontaneous free will that could be held responsible for the consequences of its action in causal terms. On the other, it opened up a new avenue for reconceptualizing the meaning of that classical Enlightenment conception of free will: *autonomy*. In the age of information automation, however, it was no longer sufficient to triangulate the concept of autonomy with respect to the problem of infinity. For the old, nebulous concept of infinity was already being translated into a new theory of *complexity*.

[133] Luhmann, 212–13.

6
THE STATE AGAINST NATURE
THE ANTINOMY OF VOLUNTARISM AND AUTOMATISM IN LEGAL AND ADMINISTRATIVE SCIENCE

» En Route to Selectivity « Peregrinations of a Legal-Technological Antinomy

This chapter aims to provide a deep historical contextualization of Luhmann's work on the public administration in the mid-1960's as a means of working through the persistent dynamics of what I call the antinomy of "voluntarism" and "automatism" in modern thought. The antinomy comprises two basic and opposed principles that animated and frustrated modern theories of self-organization, and which emerged out of the intersection between the two dimensions of *Kontingenzsinn*, the "vertical" and the "horizontal." It results from the attempt to root the spontaneous manifestation of rational and intelligible organization, of "purposiveness without a purpose," in some kind of "ground."[1] But, like all grounding theories, it nevertheless always ends up regressing back to an original arbitrariness. To speak with Schelling, the "*Urgrund*" [primordial ground] is always an "*Ungrund*" [non-ground].[2] Whether one takes recourse to cosmic will or to the aleatoric properties of matter, to sheer striving or the blind concatenation of anonymous elements as the *Urgrund*, a moment of naked arbitrariness persists in every "vertical" explanation.

Although Luhmann did not make use of this antinomy as an analytical frame, I contend that it is a useful key for deciphering the selective affinity of specific conceptual elements in the modern intellectual history of *Kontingenzsinn*. As a heuristic tool, it helps to reconstruct the historical significance of Luhmann's systems theory as plausible alternative to those theories of rational organization mired in the antinomy. Hardly restricted to philosophical metaphysics or theology, this antinomy provided orientation to most legal, political, epistemological, cosmological, biological, sociological and technological conceptions of order since Hobbes, at the latest. I read Luhmann's mobilization of the semantics of "selectivity" as an attempt to "overcome" of the antinomy by eliminating the "vertical" metaphysical dimension in favor of the "horizontal."

At first glance, "voluntarism/automatism" seems to echo a number of other salient antinomies familiar to modern intellectual history, such as Lukács's "soul and form,"[3] "vitalism and mechanism," "idealism and materialism," "spontaneity and passivity," "subjective and objective," or the ancient "order and chaos," to name but a few. So why insist on this idiosyncratic nomenclature, given the availability of such readymade frameworks? Lukács's soul/form distinction seems particularly apt for positioning Luhmann's political sociology, especially insofar as the latter took

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[1] Immanuel Kant, *Critique of the Power of Judgment*, ed. Paul Guyer, trans. Paul Guyer and Eric Matthews (Cambridge: Cambridge University Press, 2000); For a compelling argument that Kant's interpretation exercised a strong influence on German biologists in the first half of the nineteenth century, see Timothy Lenoir, *The Strategy of Life: Teleology and Mechanics in Nineteenth Century German Biology* (Dordrecht: Springer Netherlands, 1983); Rachel Zuckert, *Kant on Beauty and Biology an Interpretation of the Critique of Judgment* (Cambridge, UK; New York: Cambridge University Press, 2007).

[2] Andrew Bowie, *Schelling and Modern European Philosophy:: An Introduction* (London ; New York: Routledge, 1994); For an account of the connection between Schelling and contingency, see Markus Gabriel, *Transcendental Ontology: Essays in German Idealism* (London; New York: Bloomsbury, 2013).

[3] György Lukács, *Soul & Form*, ed. John T. Sanders and Katie Terezakis, trans. Anna Bostock (New York: Columbia University Press, 2010).

Schmitt's decisionist legal theory and political theology as one of its primary targets. Certainly, I intend to capture the contrast between the personal and impersonal suggested by soul/form and subject/object. But soul/form strongly suggests a distinction between inwardness and outwardness that is irrelevant and misleading in this context. "Soul" also tends to presuppose a relatively more concrete notion of substance than does the concept of the "will."

The antinomy thus resonates with recent studies that have sought to link the history of early modern automata to the modern life and social sciences. In the seventeenth and eighteenth centuries, mechanical automata became a tool with which to think about and try to explain the phenomenon of natural and social order.[4] For example, the persistence of appeals to teleology in the life sciences well after it had supposedly been banished from the realm of legitimate scientific explanation has suggested to some historians, like Jessica Riskin, that "passive" mechanistic materialism, those involving only the random interactions of lifeless "matter in motion," was insufficient to account for the phenomenon of life.[5] But in even the most passive materialisms she has detected, like Leibniz and Blumenberg, the spectral presence a transcendent "will."[6] Against this antinomy of voluntarism and materialism, she aims to recover the parallel tradition of a vital materialism, in which a "lively" matter has an intrinsic "active force" which "strives," even if it does not strive after a specific "purpose."[7]

Unlike Riskin's use of the vitalism/mechanism schema, however, I understand the voluntarism/automatism antinomy to be indifferent to the question of matter. Automatism designates simply the anonymity and acentricity of the spontaneous forces driving an organizational process, not the substrate of that process. Although automatism is often equated with purely the purely mechanical causality of "passive matter," for Aristotle *to automaton* specifically designated the aleatoric properties of matter in giving rise to order absent a "final cause," including the phenomenon of "spontaneous generation."[8] The early modern hylozoism Riskin appreciates is in certain respects a direct descendent of Aristotle's *automaton*. As a paradigm of dynamic organization, automatism is not simply the blind interaction of mute, lifeless atoms, but the result of a mysterious deviation immanent to matter. But in that case, *automaton* simply anticipated the arbitrary "ungroundedness" of the will in Christian voluntarism. In both cases, the *ex nihilo* "spontaneity" invoked as an explanatory principle remains as "arbitrarily" contingent as any other.

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[4] Among the more useful contributions to this field, see Lenoir, *The Strategy of Life: Teleology and Mechanics in Nineteenth Century German Biology*; Otto Mayr, *Authority, Liberty, and Automatic Machinery in Early Modern Europe* (Johns Hopkins University Press, 1989); Guido Giglioni, "Automata Compared: Boyle, Leibniz and the Debate on the Notion of Life and Mind," *British Journal for the History of Philosophy* 3, no. 2 (September 1, 1995): 249–78; Simon Schaffer, "Enlightened Automata," in *The Sciences in Enlightened Europe*, ed. William Clark, Jan Golinski, and Simon Schaffer (University of Chicago Press, 1999); Evelyn Fox Keller, *Making Sense of Life: Explaining Biological Development with Models, Metaphors, and Machines* (Cambridge, Mass: Harvard University Press, 2002); Peter Hanns Reill, *Vitalizing Nature in the Enlightenment* (Berkeley: University of California Press, 2005); Jessica Riskin, ed., *Genesis Redux: Essays in the History and Philosophy of Artificial Life*, 1 edition (Chicago: University Of Chicago Press, 2007); Minsoo Kang, *Sublime Dreams of Living Machines* (Harvard University Press, 2011); Justin E. H. Smith, *Divine Machines: Leibniz and the Sciences of Life* (Princeton: Princeton University Press, 2011); Adelheid Voskuhl, *Androids in the Enlightenment: Mechanics, Artisans, and Cultures of the Self* (University of Chicago Press, 2013); Eugene Marshall, *The Spiritual Automaton: Spinoza's Science of the Mind*, First edition (Oxford, United Kingdom: Oxford University Press, 2013); Jonathan Sheehan and Dror Wahrman, *Invisible Hands: Self-Organization and the Eighteenth Century* (Chicago: The University of Chicago Press, 2015).

[5] Jessica Riskin, *The Restless Clock: A History of the Centuries-Long Argument over What Makes Living Things Tick* (Chicago: University of Chicago Press, 2016).

[6] Hans Blumenberg, *The Legitimacy of the Modern Age*, trans. Robert M. Wallace (MIT Press, 1983), 157. See my discussion of this idea in Chapter Two.

[7] For an exploration of this theme in art and architecture, see Spyros Papapetros, *On the Animation of the Inorganic: Art, Architecture, and the Extension of Life* (University of Chicago Press, 2012).

[8] Emanuela Bianchi, *The Feminine Symptom: Aleatory Matter in the Aristotelian Cosmos* (Fordham University Press, 2014), 51.

In addition to the metaphysical problem of grounds, the antinomy of voluntarism and automatism refers to the form taken by this "organization." To say something is "organized," however acentric it may be, still presupposes there is a "something" to call "organized," that is, it must have some minimal sense of *identity*. This often takes the dimension of attributing the property of "selfhood" to every manifestation of order. While this is obvious in the case of voluntarism, automatism seems, instead, precisely to reject the attribution of selfhood. While it may reject the conscious intention and "personhood" implied by "voluntarism," it retains the reference to selfhood—"*auto*" literally means "self," after all. But in connection with its meaning as "spontaneity without purpose," automatism also designates a certain relation *to* human selfhood and voluntarism. Automatism is often encountered in relation to human anxieties of control: either as an extension of the human will's desire to control what it is not, or as a site of resistance to the exercise of that will. As a quality of the world, automatism can imply both the world's reliability for the human agent, as in metaphor of the "clockwork universe," as well as its possible recalcitrance to human designs. In escaping conscious control, automatism can also replicate the experimental randomness associated with those variants of voluntarism that depict the creative will as an unconscious agency, for example, in André Breton's concept of "automatic writing."[9] Or it might be figured as the completely subjectless configurations of matter, as in Althusser's aleatory materialism.[10]

Luhmann's use of selectivity deliberately abjured with all of these approaches, however, insofar as each retained an emphasis on "ungrounded" spontaneity. Instead, Luhmann retained the related Kantian concept of *autonomy* for his systems theory. Although it is common to oppose automation to autonomy—that former often depicted as pale imitation of and a threat to the latter—it is no accident that we frequently refer to machines or machine systems as "autonomous technologies."[11] Some have recently insisted on distinguishing "autonomic" (self-regulating) from "autonomous" (self-legislating) technology to preserve a difference between the human and non-human.[12] But Luhmann clearly wanted to preserve aspects the more robust Kantian notion of autonomy as self-legislating to define systems rationality.

Kantian autonomy involves a robust notion of the free will that he sharply distinguished from the idea of the negative freedom to choose between particulars without external coercion. For Kant, the latter is arbitrary, and therefore irrational and heteronomous. He thus contrasted this irrational and arbitrarily choosing *Willkür* unfavorably with its rational and autonomous counterpart, *Willensfreiheit*. The former is a choice "caused" by mere particular inclinations or desires, and which is nearly indistinguishable from mere randomness, whereas the latter describes the freedom involved in deciding to act consistently in accordance with self-given laws. Only choices grounded in reasons, that is, those that can be justified with respect to self-given and universalizable maxims, truly belong to the free will. Their universalizability, further, enables the harmonization of particular wills with the general interest in a fully Enlightened society. A society of autonomous individuals, in other words, would virtually "automatically" engender an autonomous social order by eliminating every trace of arbitrary particularism.

Luhmann may have dispensed with Kant's appeal to universalizable grounds, but he preserved much of the rest of the Enlightenment concept of autonomy when he attempted to define the rationality of social systems as a kind of autonomous selectivity. Chapters Seven and Eight will

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[9] André Breton, *The Automatic Message* ([S.l: s.n, 1933).

[10] Louis Althusser, *Philosophy of the Encounter: Later Writings, 1978-87* (Verso, 2006).

[11] Langdon Winner, *Autonomous Technology: Technics-out-of-Control as a Theme in Political Thought* (Cambridge, Mass.: MIT Press, 1978).

[12] See Mireille Hildebrandt, "Autonomic and Autonomous 'Thinking': Preconditions for Criminal Accountability," in *Law, Human Agency, and Autonomic Computing: The Philosophy of Law Meets the Philosophy of Technology*, ed. Mireille Hildebrandt and Antoinette Rouvroy (Milton Park, Abingdon, Oxon ; New York, NY: Routledge, 2011).

focus on the special affinity between autonomy and selectivity in the history of ideas, and in Luhmann's theory of administrative systems, respectively. The present chapter aims to prepare these chapters by tracing the activity of the voluntarism/automatism antinomy in legal and administrative science backwards from 1960's West Germany to the seventeenth century.

» 1. Reforming Administrative Science in the Early Bonn Republic « Dejuridification and the Normative-Empirical Schism

Although publishing a number of essays that moved in the direction of political theory,[13] Luhmann clearly felt some discomfort with the topic. A fully formed "political sociology" remained elusive for the budding social theorist in the 1960's. Although penning a pair of lengthy monographs on "political sociology" and "power" in the late 1960's, Luhmann declined to publish them in his lifetime.[14] They were scrapped in favor of his work on a general theory of social systems, and more specific studies of law and religion. Completely rewritten versions would only appear with 1975's *Power*, and 1981's *Political Theory in the Welfare State*.[15] His ruminations on the political system were reserved for either shorter exploratory essays, such as 1968's "Sociology of the Political System," or studies on specific political themes, such as *Basic Rights as an Institution* (1965) and *Legitimation through Procedure* (1969).[16] But until *Legitimation* and the later works, the clearest picture Luhmann offered of the political system in the 1960's appeared in his two short books on public administration from 1966: *Theory of Administrative Science* and *Law and Automation in Public Administration*.[17]

Luhmann's own professional history helps account for this peculiar intellectual itinerary. Like most state bureaucrats in the Bonn Republic, Luhmann had trained in the law, before working in various capacities within the public administration of Lower Saxony, spending much of the latter half of the 1950's assisting with the *Entschädigungsprozess* or "compensation process" for damages incurred during the war. In such a process, legal forms served to regulate the precarious boundary between the administrative state and the public sphere that made claims upon it.[18] Basic rights, according to Luhmann, function similarly to regulate and preserve this boundary. The nature of the legal and political relationship between the state and its citizens had been at the heart of the major debates of the 1950's and 1960's over the form of the West German state prescribed by its constitution, the *Grundgesetz* (Basic Law), resuscitating the *Rechtsstaat-Sozialstaat* controversy so central to Weimar jurisprudence and, in another form, to Weber's sociology of law.

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[13] Namely, those essays collected in Niklas Luhmann, *Politische Planung: Aufsätze zur Soziologie von Politik und Verwaltung*, 1971; See, in particular Niklas Luhmann, "Politische Planung," *Jahrbuch Für Sozialwissenschaft* 17, no. 3 (1966): 271–96; Niklas Luhmann, "Öffentliche Meinung," in *Politische Planung: Aufsätze zur Soziologie von Politik und Verwaltung*, 1971; Niklas Luhmann, "Komplexität und Demokratie," in *Politische Planung: Aufsätze zur Soziologie von Politik und Verwaltung*, 1971.

[14] Niklas Luhmann, *Politische Soziologie*, ed. André Kieserling (Berlin: Suhrkamp, 2015); Niklas Luhmann, *Macht im System*, ed. André Kieserling (Berlin: Suhrkamp, 2013).

[15] Niklas Luhmann, *Macht* (Stuttgart: Enke, 1975); Niklas Luhmann, *Trust and Power: Two Works*, ed. Tom Burns and Gianfranco Poggi, trans. Howard Davis, John Raffan, and Kathryn Rooney (Chichester; New York: Wiley, 1979); Niklas Luhmann, *Politische Theorie im Wohlfahrtsstaat* (Olzog, 1981); Niklas Luhmann, *Political Theory in the Welfare State* (Berlin ; New York: W. de Gruyter, 1990).

[16] Niklas Luhmann, "Soziologie des politischen Systems," *Kölner Zeitschrift für Soziologie und Sozialpsychologie* 20 (1968): 705–33; Niklas Luhmann, *Grundrechte als Institution: ein Beitrag zur politischen Soziologie* (Berlin: Duncker & Humblot, 1974); Niklas Luhmann, *Legitimation durch Verfahren* (Frankfurt am Main: Suhrkamp, 2013).

[17] Niklas Luhmann, *Theorie der Verwaltungswissenschaft* (Köln u. Berlin: Grote, 1966); Niklas Luhmann, *Recht und Automation in der öffentlichen Verwaltung.* (Berlin: Duncker & Humblot, 1966).

[18] Constantin Goschler, *Schuld Und Schulden: Die Politik Der Wiedergutmachung Für NS-Verfolgte Seit 1945* (Göttingen: Wallstein, 2005).

Such concerns only became more pressing and complicated with the rise of the "planning state" in the 1950's and 1960's. "Planning," as legal scholar Joseph Kaiser put it in 1965, had become a "key concept of our future."[19] Bolstered at first by the success of the postwar *Wirtschaftswunder*, which through increased tax revenues enabled the continued growth of the administrative state, the so-called "planning euphoria" of the 1960's led to increased scholarly interest in the administrative and not only legal and political dimensions of the state.[20] The reform of administrative law that governed state intervention became, as a consequence, a major site of concern from the late 1950's through the 1970's, making the field of public law as a whole far more complex and diversified as more and more aspects of social life fell under the purview of state policy. Legal scholars tackled this issue under the heading of "multinormativity," that is, the sense that a rapidly expanding legal code eroded its underlying "unity," instead fragmenting into an ad hoc patchwork of potentially contradictory regulations and statutes. The consensus was that this was "a problem of modern legal systems" as such.[21]

The troubled intersection of law and public administration thus became a central concern of the Speyer Academy for Administrative Science [*Speyer Hochschule für Verwaltungswissenschaft*], where Luhmann worked from 1962-1964. Under the leadership of Fritz Morstein Marx, a Jewish émigré from Nazi Germany who had returned to Germany from a career in administrative science in the United States in 1962, the Speyer Academy dedicated much of its work to "de-juridifying" administrative science by incorporating the empirical and theoretical research methods developed in the social sciences.[22] Unlike its counterpart across the Atlantic, German public administration, both in practice and in training, had operated almost exclusively within the parameters of the legal discipline. Administrators were generally trained in law, and the concepts used to study public administration were drawn from legal doctrine and legal science.[23]

Until the 1950's, political science was a particularly underdeveloped field in Germany. Even the sociology associated with the names Weber, Tönnies, Mannheim and Simmel grew out of philosophy and economics, and had virtually no influence on administrative science, training and practice prior to World War Two.[24] There was a curious irony to this fact, since German-speaking Central Europe had been home to some of the earliest innovations in what would only later be called the science of public administration: most notably, the development of cameralism in the seventeenth and eighteenth centuries, followed by the mid-nineteenth-century theories of Lorenz von Stein, often considered the "father" of modern public administration. But Stein's ripostes to the

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[19] Michael Stolleis, *Geschichte des öffentlichen Rechts in Deutschland 4: Staats- und Verwaltungsrechtswissenschaft in West und Ost 1945 - 1990* (München: Beck C. H., 1988), 267.

[20] Helmut Schelsky, "Planung der Zukunft: Die rationale Utopie und die Ideologie der Rationalität," *Soziale Welt* 17, no. 2 (1966): 155–72; Ernst Wolfgang Böckenförde, "Planung zwischen Regierung und Parlament," *Der Staat* 11, no. 4 (1972): 429–58; Gabriele Metzler, *Konzeptionen politischen Handelns von Adenauer bis Brandt: politische Planung in der pluralistischen Gesellschaft* (Paderborn: Schöningh, 2005); Dirk van Laak, "Planung. Geschichte und Gegenwart des Vorgriffs auf die Zukunft (Planning. The Past and Presence of Advancing the Future)," *Geschichte und Gesellschaft* 34, no. 3 (2008): 305–26.

[21] Michael Stolleis, *Public Law in Germany: A Historical Introduction from the 16th to the 21st Century*, trans. Thomas Dunlap, 2017, 163.

[22] Fritz Morstein Marx, "German Administration and The Speyer Academy," *Public Administration Review* 27, no. 5 (1967): 403–10; Rudolf Morsey, "50 Jahre Hochschule für Verwaltungswissenschaften Speyer (1947–1997)," in *Staat und Verwaltung: Fünfzig Jahre Hochschule für Verwaltungswissenschaften Speyer*, ed. Klaus Lüder (Duncker & Humblot, 1997).

[23] Morstein Marx, "German Administration and The Speyer Academy"; Wolfgang Seibel, "Administrative Science as Reform: German Public Administration," *Public Administration Review* 56, no. 1 (1996): 74–81; Wolfgang Seibel, "Beyond Bureaucracy—Public Administration as Political Integrator and Non-Weberian Thought in Germany," *Public Administration Review* 70, no. 5 (2010): 719–30.

[24] Seibel, "Administrative Science as Reform"; Wolfgang Seibel, *Verwaltung verstehen: eine theoriegeschichtliche Einführung*, 2200 (Berlin: Suhrkamp, 2016).

dominant legal-scientific framing of administration would soon be overshadowed by the sudden and intensive work of legal codification following the unification of the German Empire in 1871. Carried out under the auspices of legal positivism, codification lent enormous prestige to normative legal science, leaving von Stein's legacy in the lurch for decades. Administrative science thus withered as an independent field, ultimately swallowed up by the discipline of administrative law, a sub-field of public law, where the vast majority public officials would train for the next century.[25]

Germany's situation stood in stark contrast to that found in the United States. Well before World War II both political and administrative science in American universities were tightly linked and thoroughly empirical disciplines in direct conversation with the sociology of industrial bureaucracy, fields influenced, ironically, by the import of Max Weber in the 1920's. The scientific study of public administration had roots in the nineteenth century, gaining an independent standing in the wake of Woodrow Wilson's 1887 paper, "The Study of Administration," which, influenced by the example of Lorenz von Stein and the apparent success of the Prussian state, argued that "politics" and "administration" ought to be sharply distinguished.[26] Thereafter, public administration gradually developed into a well-established academic field represented at most major post-secondary institutions. Not incidentally, it was also the field in which Herbert Simon, whose work would heavily influence Luhmann's approach to administrative science, would train in the 1930's at the University of Chicago.[27] The advent of the so-called "behavioral revolution" in North American political science beginning in the 1930's at the University of Chicago behind the work of Charles Merriam only intensified the divergence in the two countries by further extending and deepening the empirical slant of the American field of public administration.[28]

Like his higher profile German-American émigré counterparts in political science, including Carl Friedrich and Karl Loewenstein, Morstein Marx returned to postwar Germany with the American theoretical perspectives and empirical tools he had honed in several well-received monographs published in English in the 1950's with the intention of modernizing the study, teaching and practice of German public administration, and agenda which centered on undoing what was widely perceived at the time as a "jurists' monopoly" [*Juristenmonopol*][29] over the West German sciences of administration.[30]

Consonant with this agenda, Luhmann opted to tackle the problem of the *Juristenmonopol* in terms of what he viewed as inhibiting the progress of the social sciences: the fundamental "schism" between empirical and normative-rational methods.[31] Luhmann was far from alone in his assessment. Decrying the normative-empirical opposition was a common refrain among German

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[25] David F. Lindenfeld, *The Practical Imagination: The German Sciences of State in the Nineteenth Century* (Chicago: University of Chicago Press, 1997); Stolleis, *Public Law in Germany*.

[26] Woodrow Wilson, "The Study of Administration," *Political Science Quarterly* 2, no. 2 (June 1887): 197–222.

[27] Hunter Crowther-Heyck, *Herbert A. Simon: The Bounds of Reason in Modern America* (Baltimore: Johns Hopkins University Press, 2005).

[28] Barry D. Karl, *Charles E. Merriam and the Study of Politics* (Chicago: University of Chicago Press, 1974); Mark C. Smith, *Social Science in the Crucible: The American Debate over Objectivity and Purpose, 1918-1941* (Durham, N.C: Duke University Press, 1994); Raymond Seidelman, *Disenchanted Realists: Political Science and the American Crisis*, Second edition (Albany: State University of New York Press, 2015); David Easton, *The Political System: An Inquiry Into the State of Political Science* (New York: Knopf, 1953); Robert A. Dahl, "The Behavioral Approach in Political Science: Epitaph for a Monument to a Successful Protest," *The American Political Science Review* 55, no. 4 (December 1961): 763; Dwight Waldo, "Organization Theory: An Elephantine Problem," ed. Richard N. Adams et al., *Public Administration Review* 21, no. 4 (1961): 210–25; Dwight Waldo, "Public Administration," *The Journal of Politics* 30, no. 2 (May 1, 1968): 443–79.

[29] Luhmann, *Theorie der Verwaltungswissenschaft*, 13.

[30] Fritz Morstein Marx, *The Administrative State; an Introduction to Bureaucracy*, The Chicago Library of Comparative Politics (Chicago: University of Chicago Press, 1957); Fritz Morstein Marx, *Elements of Public Administration*, 2d ed (Englewood Cliffs, N.J: Prentice-Hall, 1959).

[31] Luhmann, *Theorie der Verwaltungswissenschaft*, 21–25.

social theorists in the 1960's.[32] Habermas's 1966 *Logic of the Social Sciences*, a product of his involvement in the later stages of the positivism dispute, had been provoked by the question of the place of normative considerations in the study of social reality.[33] Social organizations invariably depend on norms. But social theory also needed to find a way to "account" for social norms, without either wholly reducing them to empirical facts or attributing to them a special trans-empirical status. The future progress of administrative sciences thus required an entirely new and distinctive theoretical perspective that could simultaneously handle both empirical administrative behavior and the normative world of law. This problem was particularly acute for the study of *administrative* rationality because of the centrality of the concept of "decision" to its basic function. The most influential normative-rational sciences of the day were the mathematical theories of decision, especially rational choice theory.[34] But Luhmann found the sociological utility of these theories to be severely limited.[35] He thus tried to reframe some of the major legal-political debates of that era concerning the administrative state into a methodological question: how does one evaluate and study the rationality of decision-making processes, which are both empirical facts and intrinsically normative?[36] And what kinds of practical administrative, legal or even political problems could be solved with a more sociologically robust concept of administrative rationality?

» 2. Birth Pangs of Bonn «
Constitutional Debate, Industrial Society, and Technocracy

What may appear at first glance to be a series of merely technical concerns in scientific methodology were directly implicated in the legal-political debates and imaginaries of the 1950's and early 1960's. The question of how social scientific methodology was to relate to social reality found a counterpart in the question of the role played by the "mechanism" of legal norms in binding the empirically real

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[32] Theodor W Adorno, ed., *The Positivist Dispute in German Sociology* (Aldershot: Avebury, 1994); For a widely-read argument against the possibility of "social science" at the time, see Peter Winch, *The Idea of a Social Science and Its Relation to Philosophy*. (London: Routledge [and] K. Paul, 1958).

[33] Jürgen Habermas, *On the Logic of the Social Sciences*, trans. Shierry Weber Nicholsen and Jerry A. Stark (Cambridge, Mass.: The MIT Press, 1990).

[34] John Von Neumann and Oskar Morgenstern, *Theory of Games and Economic Behavior* (Princeton University Press, 1953); S. M. Amadae, *Rationalizing Capitalist Democracy: The Cold War Origins of Rational Choice Liberalism* (Chicago: University of Chicago Press, 2003); Giorgio Israel and Ana Millán Gasca, *The World as a Mathematical Game: John von Neumann and Twentieth Century Science*, Science Networks Historical Studies, v. 38 (Basel ; Boston: Birkhäuser, 2009); Philip Mirowski, "What Were von Neumann and Morgenstern Trying to Accomplish?," *History of Political Economy* 24, no. Supplement (December 1, 1992): 113–47; Robert J. Leonard, "From Parlor Games to Social Science: Von Neumann, Morgenstern, and the Creation of Game Theory 1928-1944," *Journal of Economic Literature* 33, no. 2 (1995): 730–61; Robert Leonard, *Von Neumann, Morgenstern, and the Creation of Game Theory: From Chess to Social Science, 1900--1960*, Historical Perspectives on Modern Economics (New York: Cambridge University Press, 2010).

[35] Niklas Luhmann, "Kann die Verwaltung wirtschaftlich handeln?," *Verwaltungsarchiv* 51 (1960); For Simon's critiques, see Herbert A. Simon, *Administrative Behavior: A Study of Decision-Making Processes in Administrative Organizations*, 4th ed (New York: Free Press, 1997); Herbert A. Simon, *The New Science of Management Decision* (New York: Harper and Brothers, 1960); Herbert A. Simon, "The Logic of Rational Decision," *The British Journal for the Philosophy of Science* 16, no. 63 (1965): 169–86.

[36] Herbert Simon's contributions had certainty advanced beyond the narrow purview of rational choice theory in modeling organized decision-making behavior. But he too, as Karl Deutsch pointed out, still restricted the scope of his writing on organizations to relatively small and highly organized domains in which individual decision were easy to locate, and left aside the larger and more nebulous kinds of social systems within which these were embedded, such as the political and legal systems. Karl W. Deutsch, *The Nerves of Government; Models of Political Communication and Control* (New York: Free Press, 1963), 42; Ronald R. Kline, *The Cybernetics Moment: Or Why We Call Our Age the Information Age* (Baltimore: Johns Hopkins University Press, 2015), 145.

sovereign will of the state—an existential question for Germans in the wake of the failure of Weimar and the experience of National Socialism. For those at Speyer the concern with the dejuridification of administrative science was hardly the minor provincial issue it might appear to be at first glance. It may have manifested in the technical, specialist language of administrative science, but it touched on the most sensitive political anxieties of the fledgling Republic. And these anxieties found articulation with the help of the most recent iteration of the voluntarism/automatism antinomy.

In its early years, the Federal Republic was rocked by a series of high profile legal and political controversies over the nature of the state. Although principally occupying the terrain of constitutional theory, these debates directly implicated the legal status of the administrative state as it appeared ever more central to the provision of social order. The 1950's, after all, were the glory years of the construction of the postwar social welfare state across Western Europe. This meant that the subsidies, provisions and other interventions into the everyday lives of citizens that defined the welfare state required, in turn, new forms of social law to regulate them. But such laws seemed to throw into question the line that had traditionally divided public law from private, civil law, and state from society.

At the center of much of the controversy stood the Federal Republic's new constitution, the Basic Law. Ratified in 1949, it not only included Germany's first-ever federally binding system of basic rights, but also established a Federal Constitutional Court with considerable powers of judicial review that had little precedent in prior German history. For many it represented a component of building a stronger normative institutional order to defend the new Republic against subversion by perceived assailants on both Left and Right. For this reason, talk of the "separation of powers" became especially pronounced in the 1950's and 1960's, stemming from pervasive anxieties about the degree of "juridification" of the state administration and legislature. The new power afforded the Constitutional Court appeared, at least to statist jurists like Ernst Forsthoff, to limit the sovereignty underpinning the concept of the "administrative act," which had long been considered the basic element of administrative law.[37]

Foremost among the problems confronted in the constitutional debates of the 1950's was the question of constitutional jurisprudence concerning the form of the state prescribed by the Basic Law. Was the Federal Republic ultimately a *Rechtsstaat* or a *Sozialstaat*?—a state fundamentally bound by the rule of law, or a state steered by the overarching purpose of promoting a concrete vision of social good? "Probably *the* central debate in constitutional theory of the 1950's and early 1960's," according to Jan-Werner Müller,[38] the *Rechtsstaat-Sozialstaat* controversy came to define the legal-political consciousness of a generation of intellectuals.[39] The *Rechtsstaat* concept in itself was hardly controversial. No one disputed its functional importance, or that the Basic Law explicitly established its importance. But the uncertainty over the relative constitutional primacy of the *Rechtsstaat* or the *Sozialstaat* within the Basic Law became the site of some of the most intense legal and political debates of the 1950's, due to a mixture of the memory of National Socialist lawlessness and structural changes in European political economy. Much controversy stemmed from the fact that the Basic Law invoked the mixed concept of the *sozialer Rechtsstaat*, a concept originally advanced in the 1920's by social-democratic jurist Hermann Heller, without, however, specifying the precise meaning of the term.[40] Did the Basic Law explicitly require the state to intervene actively in the

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[37] Stolleis, *Geschichte des öffentlichen Rechts in Deutschland 4*; Peter Caldwell, "Ernst Forsthoff and the Legacy of Radical Conservative State Theory in the Federal Republic of Germany," *History of Political Thought* 15, no. 4 (January 1, 1994): 615–41.

[38] Jan-Werner Müller, *A Dangerous Mind: Carl Schmitt in Post-War European Thought* (New Haven: Yale University Press, 2003), 76.

[39] Matthew G. Specter, *Habermas: An Intellectual Biography* (Cambridge University Press, 2010).

[40] Stolleis, *Public Law in Germany*, 136.

economy, provide social goods, and redistribute wealth to prevent the spontaneous emergence of patterns of social and economic inequality?

Some, like social democratic theorist Wolfgang Abendroth, observed little contradiction between the *Rechts-* and *Sozialstaat*, viewing them instead as mutually supportive.[41] But Schmittian conservatives like Forsthoff held that the administrative intervention required by the *Sozialstaat* contravened the basic principles of the *Rechtsstaat*. Prior regimes of administrative law had regulated administrative acts only insofar as they qualified as "burdensome," that is, as placing an undue stress or incurring damages on individuals, requiring mediation and compensation from the state. But the Basic Law now authorized what were called "promotive acts" [*Leistungsakten*], which provided goods and services to the public. Since often performed on a differentiated or individual basis, such acts could appear to undermine the principle of equality under the law—a fundamental tenet of the *Rechtsstaat*—and therefore required further legal clarification.[42]

While virtually all participants in the dispute agreed on the priority of the "rule of law" embodied in the *Rechtsstaat* ideal as a basis for social stability, few agreed about what this actually entailed in practice. More than just a normative question about the essence of the political or the state, it raised slippery empirical questions about recent transformations in contemporary society. Most observers agreed that the distinction between state and society, a staple of liberal state theory since the nineteenth century, had been dissolving for some time. But they disagreed about its causes. Was it because "industrial society" had usurped the prerogatives of the state, or because an increasingly emboldened and proto-totalitarian state illegitimately intruded into society? Or was it simply a neutral transformation that demanded a new hybrid form of state?

As these constitutional debates began to appear before the tribune of the general public, they brought with them keywords like "planning," "industrial society," and "technocracy," technical socio-economic concepts that suddenly became familiar tropes of lay conversation. Each of these concepts challenged the aggressive quarantine between state and society erected in liberal public law jurisprudence over a century before, and pointed towards the centrality of technology or technical rationality in driving these transformations. Depending on one's political or philosophical stance, either the "state" or "society" could appear as the locus and agent of the spread of technological-instrumental rationality. For Schmittians like Forsthoff who identified the "state" with "will-power" and political "substance" (*Substanz*), this dissipative rationality belonged primarily to "society." The danger posed by the social state was not that it gave the state too much power, but rather that the conditions of an industrialized and pluralized society subordinated the state to the particularism of social interests, thus robbing it of its authentic substance.

The concept of "industrial society" became a focal point for constitutional debates about the nature of the state in the 1950's and 1960's. But its politics were by no means straightforward. Support and opposition for robust administrative intervention cut across the traditional left/right political divide, as well as other salient oppositions such as Dirk Moses's distinction between "redemptive" and "integrative republicans."[43] But it did tend to map much more closely onto one's sentiment towards technological modernity, a framing that pitted modernist "technocrats" against traditionalist "humanists."[44] Of course, there were important exceptions: Abendroth, for example,

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41 Specter, *Habermas*.

42 Stolleis, *Geschichte des öffentlichen Rechts in Deutschland 4*.

43 A. Dirk Moses, *German Intellectuals and the Nazi Past* (Cambridge: Cambridge University Press, 2009).

44 A similar sentiment can be found in C. J. Thornhill, *German Political Philosophy: The Metaphysics of Law* (London: Routledge, 2007). But I probably would not go as far as Thornhill in claiming this divide was *the* central one in postwar politics: "The battle lines of political debate in the early Federal Republic were therefore drawn between humanists and technocrats. At the centre of the rivalry between these two camps was, once again, a debate over metaphysics, and both

backed the strong social administrative state primarily on humanistic grounds and with reference to classical models of democratic legitimacy. And on the whole, liberals and the center-left tended to embrace the strong social state and affirmed its relationship to technological modernity with similar justifications, even if they insisted that the state-society boundary so important to previous generations of liberals no longer had traction. But the political lines with regard to technological modernity and the administrative state would be redrawn considerably between 1950 and 1970, with liberals and social democrats becoming more wary of the technocratic ideology of administrative planning in the 1960's at the same moment conservatives came to embrace it. Only then would Left uneasiness with the administrative state find widespread resonance, as a younger student generation began to take notice of Horkheimer and Adorno's diagnosis of the "totally administered society," the product of the unrestrained growth of modern instrumental rationality that they had analyzed two decades prior in *Dialectic of Enlightenment*.

The more technophobic on both left (Jaspers, Arendt, Adorno) and right (Heidegger, Wilhelm Hennis, Rudolph Smend) tended to view the growth of the administrative state as either a precursor to totalitarianism or as an execrable manifestation of technology becoming autonomous and uncontrollable. On the center right several prominent legal and political thinkers briefly revived a brand of traditional conservatism centered on some variation of Catholic moral sensibilities, virtue ethics, and value philosophies joined by the common denominator of natural law. In the first half of the 1950's natural law doctrine simply dominated West German constitutional jurisprudence. This was a startling event. After its eclipse by positive law doctrines in the nineteenth century, natural law had become the preserve of predominantly Catholic religious conservative thought by the 20th century. But through Max Scheler and Nicolai Hartmann's "concrete value ethics" and Rudolf Smend's "value philosophy," among many others, natural law once again found non-religious legitimation as a response to Weimar's infamous instability.[45] After the experience of Nazism and in alliance with both the revival of political Catholicism and Kurt Loewenstein's Weimar-era concept of "militant democracy," natural law and concrete value ethics doctrines supplied German legal thinkers with tools for holding at bay the moral arbitrariness and threats to substantive democracy posed by legal positivism's empty and mechanical formalism, which many held responsible for the failure of the Weimar Republic.[46]

The Smend School in particular, despite its meager influence in the 1920's, underwent a spectacular renaissance in the early 1950's, becoming the de facto legal authority for many of the Court's most salient legal decisions for much of the decade. For Smend, there were basic human values that were essential and timeless. As such, their content and enforcement could not be left up to formal determination through democratic processes, but rather had to be specified and codified in advance. The Basic Law, he argued, deemed such values an ineluctable basis for generating the social consensus needed for social stability. Although parting ways on the centrality of a specific set of moral values to political life[47] and on the importance of the new Federal Constitutional Court, Smend shared with the radical Schmittians a deep-seated fear concerning the deleterious effects of cultural pluralism and individualist atomization on contemporary politics. Social stability, Smend

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camps justified their own position by accusing each other of distorting the authentic nature of political order by deploying metaphysical categories of analysis and prescription." p. 310.

[45] Specter, *Habermas*.

[46] Udi Greenberg, *The Weimar Century: German Emigres and the Ideological Foundations of the Cold War* (Princeton University Press, 2015); Samuel Moyn, *Christian Human Rights* (Philadelphia, Pennsylvania: University of Pennsylvania Press, 2015); James Chappel, *Catholic Modern: The Challenge of Totalitarianism and the Remaking of the Church* (Cambridge, Massachusetts: Harvard University Press, 2018).

[47] Carl Schmitt, *Die Tyrannei der Werte* (Duncker & Humblot, 2011).

agreed with Schmitt and Forsthoff, ultimately depended on the maintenance of a "politically homogeneous people and the 'moral substance' of individuals sharing values and practices."[48]

It was precisely the lack of such a homogenous people that made these conservatives so wary of the concept of the social state. Opponents of the increasing dominance of "society" over "state" only rarely linked the former to the bourgeois economic freedom with which it had traditionally been associated. Unlike the 1920's, conservative opposition to the "social" in the early 1950's was less anti-capitalist than it was anti-pluralist, anti-individualist and anti-technological. Hearkening back to Ferdinand Tönnies' celebrated opposition of *Gesellschaft* and *Gemeinschaft*, these conservatives held the concept of "society" to be more or less synonymous with bourgeois-liberal forms of individuality. They not only considered it the root of atomistic fragmentation and alienation in modern societies, but, reflecting their barely repressed *völkisch* nationalism, also declared it profoundly "un-German." For Schmitt and his followers, the "social" and the "technological" presented alternatives to the authentically "political," defined by a "decision" originating in a substantial notion of the "will." Only a unified and homogenous "people," not a pluralistic society of groups or individuals, could possibly manifest a sovereign general will.

Despite the powerful dissent of these intellectuals on left and right, support for extensive administrative planning cut across traditional political lines through much of the 1960's, especially among elites of an older generation. "Americanized" liberal elites (Carl Friedrich, Alfred Weber, Ralf Dahrendorf), social democrats (Wolfgang Abendroth) and some conservatives who favored Western integration and the "social-market economy" (Ordoliberals like Wilhelm Röpke, Walter Eucken, and Adenauer's Finance Minister, Ludwig Erhard) tended to embrace the continued growth of a powerful state apparatus.[49] But with the exception of some on the Left like Abendroth, who advocated \ a robust version of the *Sozialstaat*, almost all parties to the debate prioritized general social "stability" above more ambitious goals like justice or equality. The appeal of "stability"—a term which, according to Jan-Werner Müller, actually originated in the world of technology—facilitated that uneasy compromise, a signature of the Adenauer era, between modernists on left and right, and center-right traditionalists.[50] Few truly believed that society could democratically and spontaneously "self-organize" without an appeal to some transcendent foundation, whether natural law and concrete values or some form of external state force. For example, the Ordoliberal "third way" advanced by economists Eucken and Röpke—and more or less made policy by Ludwig Erhard in the form of the so-called "social-market economy"—promised to combine the stability-inducing features of the market and the state by carefully delimiting their respective scopes of action. After its renunciation of class struggle and dialectical materialism at Bad Godesberg in 1959, even the SPD became reconciled to the centrality of the market, confining the interventionist role of the state in the economy to a supplementary position in preventing acute economic crises and social unrest caused by class inequalities.

The most interesting cases, however, were strikingly ambivalent. A coterie of formerly radical conservatives including Carl Schmitt, his students, and former members of the Leipzig School, who, with the exception of Schmitt, had successfully managed to rebrand after the war despite their fervent support for the Nazis, wavered on the politics of the administrative state. Consistently hostile to the language of the *Sozialstaat*, these radical conservatives nonetheless remained relatively statist and authoritarian in orientation. Many of them spent the 1950's looking for ways to resurrect the strong and unified state against the dual threats of "society" and "technology." Forsthoff, for example, perhaps "the most important conservative jurist of the 1950's

[48] Müller, *A Dangerous Mind*, 73.
[49] Greenberg, *The Weimar Century*.
[50] Müller, *A Dangerous Mind*, 79.

and 1960's," had originally been a formidable proponent of the administrative state in the 1920's.[51] Not only did he emphasize the normative autonomy of the state from society, he "was convinced that within in the modern state all core political questions are questions of administration."[52] But the unique conditions of the postwar era coupled with Forsthoff's need to rehabilitate his brand of Schmittian conservatism led him to a position in the 1950's that, at first glance, would appear to stand in direct opposition to his earlier stance. Whereas in the 1920's Forsthoff, like Schmitt, had opposed the *Rechtsstaat* touted by legal positivists like Hans Kelsen in favor of a welfare state ideal under the heading of what he called "*Daseinsvorsorge*"—literally, "provisions for existence"—he made his name in the early years of Bonn as the principle defender of the pure *Rechtsstaat* against Heller and Abendroth's ideal of the *sozialer Rechtstaat*.[53]

Whether this shift represented a true discontinuity prompted by the failure of radical conservatism as exposed by Nazism, or rather amounted to little more than a tactical repositioning that left intact his core belief system remains an open question.[54] But whatever the case, his line of reasoning remains instructive: the increasing interpenetration of state and society under the conditions of the industrial society left welfare provisions at the whims of the particular needs of social interest groups, undermining the autonomous authority of the state. For Forsthoff in 1953, the only satisfactory solution was simply to shore up the beleaguered state/society divide by insisting on the impartial universality and independence of the administrative state against the claims made upon it by civil society.[55] *Daseinsvorsorge* was only an option for a strong state or for a thoroughly homogenized and pacified society. Defending the *Rechtsstaat* thus appeared to Forsthoff as the only tenable position under the conditions of the industrial society.

But once the "economic miracle" of the 1950's had become a universal symbol of the social peace and stability that could be achieved almost "automatically" through growth and prosperity, the benefits of the industrial society and the social market economy became ever more appealing to radical conservatives.[56] The activist administrative state that had once been so dear to Forsthoff again appeared as a promising vehicle for disciplining an unruly society. He thus found occasion in 1971 to publish one of his best-known works, *The State of Industrial Society*, consecrating his "functionalist" turn.[57] Whereas in his early work Forsthoff claimed that, "to be a true State, the State had to have a Substance (*Substanz*) capable of representing directly the sovereign will,"[58] by 1971 he had relinquished the language of political "substance" in favor of the technocratic language of

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[51] Müller, 73.

[52] Florian Meinel, "Review Essay - Ernst Forsthoff and the Intellectual History of German Administrative Law," *German Law Journal, Vol. 8, N°. 8, 2007, Pags. 785-800*, January 1, 2007, 787.

[53] For the earlier position, emphasizing the centrality of the activist administrative state to his conception of the political, see Ernst Forsthoff, *Die Verwaltung als Leistungsträger* (Kohlhammer, 1938); For the latter positions, see Ernst Forsthoff, *Verfassungsprobleme des Sozialstaats: Vortrag, gehalten vor der Freiherr-vom-Stein-Gesellschaft in Essen am 10. November 1953*, 2nd ed. (Münster: Aschendorff, 1961); Ernst Forsthoff, *Rechtsstaatlichkeit und Sozialstaatlichkeit: Aufsätze und Essays* (Darmstadt: Wissenschaftliche Buchgesellschaft, 1968).

[54] These two positions are represented respectively by Jerry Z. Muller, *The Other God That Failed: Hans Freyer and the Deradicalization of German Conservatism* (Princeton University Press, 1987); and Caldwell, "Ernst Forsthoff and the Legacy of Radical Conservative State Theory in the Federal Republic of Germany."

[55] "For this reason, Forsthoff concluded that the overriding function of the constitution of a democratic legal state is to protect the preconditions of legal application from colonization by political factions inside and outside the state. The constitution is not an integrative system serving to facilitate full social inclusion or 'unity', or a normative embodiment of a human vision underlying all of society." Thornhill, *German Political Philosophy*, 312–13.

[56] Müller, *A Dangerous Mind*, 80.

[57] Ernst Forsthoff, *Der Staat der Industriegesellschaft: dargestellt am Beispiel der Bundesrepublik Deutschland* (Beck, 1971).

[58] Caldwell, "Ernst Forsthoff and the Legacy of Radical Conservative State Theory in the Federal Republic of Germany," 618.

"functions."[59] And while in the 1920's and 1930's Forsthoff imagined this "will" as rooted in a conception of the *Volk* as a unified and organic whole, opposed to the atomized "masses" which threatened to undermine it, by 1971 the position of the *Volk* was replaced by an administrative "*Technik*" that promised to neutralize ideology and end political conflict.[60]

Forsthoff thus soon became emblematic of what observers quickly termed "technocratic conservatism." But he was actually a relative latecomer among conservatives in his embrace of the technocratic administrative state, and he never fully embraced the state's technological structure as would some of his contemporaries.[61] For example, as early as the 1930's Hans Freyer and Arnold Gehlen had framed a vision of society as a technical system composed not of human individuals, but rather one in which humans were necessarily "functionalized" by the institutional apparatuses that made their survival possible, positions which they continued to articulate after the war.[62] And by the mid-1960's the Schmittian political theorist Rüdiger Altmann revered the valence of Adorno's "totally administered society" under the title of the *formierte Gesellschaft*, literally the "formed society," presenting it as a normative image of the beneficent outcomes to be achieved by the technocratic planning state in producing social discipline and homogeneity. This was no minor idea: a result of Altmann's term as an advisor to Ludwig Erhard during the latter's Chancellorship between 1963-1966, the concept first found expression in Erhard's speech before CDU convention outlining his governing plan in 1965. Although it ultimately encountered considerable backlash on account of its unmistakably totalitarian undertones, the *formierte Gesellschaft* became an official slogan of the CDU during the final two years of Erhard's term.

But even before it bloomed into the mainstream in the 1960's, perhaps the most stridently unapologetic proponent of "technocratic conservatism" in the 1950's was Luhmann's own mentor, Helmut Schelsky. Among the most influential sociologists of his generation, the former NSDAP member rose to prominence in the 1950's on the back of a series of empirical studies on contemporary West Germany in light of the transformations associated with the "industrial society." These ranged from early studies of family and sexuality[63] to a trio of books from 1957 on education, automation, and the generational cohort that came of age just after the war, whom he famously dubbed the "skeptical generation."[64]

Together with his Leipzig School mentors, Freyer and Gehlen, the younger Schelsky was one of the first of these interwar radical conservatives to re-evaluate the allegedly corrosive effects of technology on the political sphere. To this end he formulated the idea of the "technical state" as a necessary counterweight to the rise of "scientific-technical civilization." In conjunction with the concept of the "industrial society," Schelsky's 1961 formulation of the "scientific-technical civilization" described a society that had become so dependent on scientific knowledge and technological apparatuses for its self-reproduction that most important decisions would have to be made on the basis of the recommendations of technical experts.[65] Rather than lament modern

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[59] "Schmitt's theories were at least slightly modernized in the sense of a selective move from substance to function, as the substantial legitimacy of the nation was replaced by the functionalist ethos of the state's administration." Müller, *A Dangerous Mind*, 75.

[60] "[I]n the later years Forsthoff replaced 'Volk' with the abstract notion of 'Technology' (Technik)." Caldwell, "Ernst Forsthoff and the Legacy of Radical Conservative State Theory in the Federal Republic of Germany," 616.

[61] Thornhill, *German Political Philosophy*, 313.

[62] Muller, *The Other God That Failed*; Thornhill, *German Political Philosophy*, 308–9.

[63] Helmut Schelsky, *Wandlungen Der Deutschen Familie in Der Gegenwart: Darstellung Und Deutung Einer Empirisch-Soziologischen Tatbestandsaufnahme.* (Stuttgart: F. Enke, 1955); Helmut Schelsky, *Soziologie der Sexualität* (Hamburg: Rowohlt, 1955).

[64] Helmut Schelsky, *Die sozialen Folgen der Automatisierung* (Diederichs, 1957); Helmut Schelsky, *Schule und Erziehung in der industriellen Gesellschaft* (Würzburg: Werkbund Verlag, 1957); Helmut Schelsky, *Die skeptische generation: eine Soziologie der deutschen Jugend.* (Dusseldorf: E. Diederich, 1957).

[65] Helmut Schelsky, *Der Mensch in der wissenschaftlichen Zivilisation* (Wiesbaden: VS Verlag für Sozialwissenschaften, 1961).

science and technology as sources of alienation, Schelsky enjoined his fellow citizens to embrace them as a (regrettable) fact and a fate with which German society would simply have to cope. As a result, he proclaimed the end of the "Great Man" theory and voluntarism that had long been so the keystone of German conservatism's concept of the political: "Politics as such was relegated to the pre-modern. Technocracy was about expunging political will or political decisions from politics altogether. Political will had to be replaced by a willingness to do what experts had singled out as the correct course of action."[66] In short, Schelsky made the decision between the automatism of impersonal technocracy and the power of the political will into one of the preeminent political questions of the 1960's.

» 3. Ghosts of Weimar «
Voluntarism and Automatism in the *Methodenstreit*

Behind the Federal Republic's constitutional debates stood a cluster of powerful philosophical questions about the meaning of law and its role in constituting modern social order. The agenda and vocabulary for their discussion in Bonn had already been set, however, in the jurisprudential debate known as the Weimar "*Methoden-*" or "*Richtungsstreit*," which involved, among others, Hans Kelsen, Carl Schmitt, Rudolf Smend, and Hermann Heller. Although the political alignments with regard to these terms would shift, both rounds of legal debate shared a set of basic conceptual frames, oriented by questions of norms and power, mechanical order and unfettered voluntarism.[67]

At its core, the *Methodenstreit* mobilized opposing solutions to what Peter Caldwell has called "Jellinek's Paradox." Named after the influential German-Austrian public law jurist Georg Jellinek (1851-1911), it concerned the question: how can the state's will can be subordinated to or restricted by the law it creates? That is, how can the state "be at the same time the highest earthly will, prior to law itself, and also bound to law[?]" Jellinek was here pointing out the existence of a profound logical aporia at the heart of the nineteenth-century jurisprudence of statutory positivists like Carl Friedrich Gerber and Paul Laband, whose public law interpretations had become official doctrine under the newly unified German Empire.

Since the paradox pits the primacy of the law against the primacy of the legislative state, the *Methodenstreit* is usually framed as centering on the concept of sovereignty, which Schmitt would make into the foundation of his political theology.[68] Bearing an unmistakable resemblance to the

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[66] Müller, *A Dangerous Mind*, 81.

[67] An authoritative collection of Kelsen and Schmitt's public dispute can be found in Hans Kelsen and Carl Schmitt, *The Guardian of the Constitution: Hans Kelsen and Carl Schmitt on the Limits of Constitutional Law*, trans. Lars Vinx (United Kingdom: Cambridge University Press, 2015); For a wider selection of texts from the other participants in the dispute, with critical introductions, see Arthur Jacobson and Bernhard Schlink, eds., *Weimar: A Jurisprudence of Crisis* (Berkeley: University of California Press, 2002); The literaure on this topic has grown considerably in the English-speaking world since the 1980's. For some of the most relevant accounts, see Peter Caldwell, "Legal Positivism and Weimar Democracy," *American Journal of Jurisprudence* 39 (1994): 273–302; Peter C. Caldwell, *Popular Sovereignty and the Crisis of German Constitutional Law: The Theory & Practice of Weimar Constitutionalism* (Duke University Press, 1997); David Dyzenhaus, *Legality and Legitimacy: Carl Schmitt, Hans Kelsen and Hermann Heller in Weimar* (Oxford: Oxford University Press, 1997); John P. McCormick, *Carl Schmitt's Critique of Liberalism: Against Politics as Technology* (Cambridge; New York: Cambridge University Press, 1997); John P. McCormick, "Legal Theory and the Weimar Crisis of Law and Social Change," in *Weimar Thought: A Contested Legacy*, ed. Peter Eli Gordon and John P. McCormick (Princeton: Princeton University Press, 2013); Dan Diner and Michael Stolleis, eds., *Hans Kelsen and Carl Schmitt: A Juxtaposition* (Gerlingen: Bleicher, 1999); Michael Stolleis, *Der Methodenstreit der Weimarer Staatsrechtslehre: ein abgeschlossenes Kapitel der Wissenschaftsgeschichte* (F. Steiner Verlag, 2001); Michael Stolleis, *A History of Public Law in Germany, 1914-1945* (Oxford: Oxford University Press, 2004).

[68] Caldwell, *Popular Sovereignty and the Crisis of German Constitutional Law*, 41.

terms of the medieval debate between realists and nominalists over the relationship between God's ordinate and absolute power,[69] it seemed a logical violation of the concept of sovereignty to imagine the state's will could be restricted without de facto undermining its sovereignty.[70] But if this were the case, then how ought one understand how norms relate to the will, the "ought" to the "is"?

In both Weimar and Bonn, the relationship of the will to laws and norms was frequently translated into a problem of the relationship between "voluntarism" and "technology," with both overlapping schemas mapping onto the basic positions in the *Methodenstreit*. Alongside the concept of "will," which had deep and tangled roots in Central European jurisprudence, technological concepts like "mechanism," "automaton," and "technique" were also fixtures of the dispute. Virtually everyone involved implicitly agreed that "will" and "technology" presented two irreconcilable or antagonistic principles. As both technical terms and metaphors, they quickly came to symbolize the positions of the two main protagonists, Hans Kelsen and Carl Schmitt, pitting the former's mechanistic positivism against the latter's voluntaristic decisionism.

Luhmann's innovations in his theory of public administration aimed to overcome the conceptual alternatives articulated in the earlier debate as a means of bypassing the problems of the 1950's and 60's. Although the names Kelsen and especially Schmitt appear only rarely in Luhmann's work, many of his contributions to administrative theory and the sociology of law can be read as a having been built on a rejection of the opposition between Kelsen and Schmitt, positivism and decisionism, as false alternatives.

In this Luhmann was not alone, and perhaps still fighting a battle that, by 1966, was no longer of such pressing concern. His argument belonged to a widespread tendency in the previous decade and a half to view positivism and decisionism as two sides of the same coin, positions that mutually implied one another and which were thus both responsible for the fragility of Weimar jurisprudence.[71] Habermas, for example, articulated one of the most famous variants of this argument already in 1963 in "Dogmatism, Reason, and Decision."[72] But even Habermas's reflection was hardly a novelty in 1963. As Müller put it, as early as the 1950's, "decisionism *and* positivism were widely held to have facilitated the rise of the Third Reich," thereby implicating Schmitt and even the liberal Kelsen as "culprits in a jurisprudential morality play."[73]

Accounts of the *Methodenstreit* tend to place Kelsen and Carl Schmitt at its respective poles, opposites staking out the boundaries of the debate.[74] But like many famous intellectual controversies, what the major players share can be more instructive than what sets them apart. Although they challenged important tenets of the statutory positivism that dominated German public law jurisprudence since the mid-19th century, Kelsen and Schmitt retained many of its most essential assumptions—particularly visible in their continued reliance on the terms constituting Jellinek's paradox. Divergences appeared above all in terms of how they handled those terms.

The Austrian jurist Hans Kelsen was already a fixture of Central European legal science before World War I, having formulated his earliest versions of the "Pure Theory of Law" with which he would come to be identified in his 1911 text, *Major Problems of State Law, Developed from the*

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[69] See Chapter Two of this dissertation and Blumenberg, *The Legitimacy of the Modern Age*; Amos Funkenstein, *Theology and the Scientific Imagination from the Middle Ages to the Seventeenth Century* (Princeton, N.J.: Princeton University Press, 1986).
[70] This political-theological paradox is also one of the reason Blumenberg became so fascinated with Nicolas of Cusa's mystical theology of creation as God's self-constriction. Blumenberg, *The Legitimacy of the Modern Age*.
[71] Dyzenhaus, *Legality and Legitimacy*; McCormick, *Carl Schmitt's Critique of Liberalism*, 218–19.
[72] Jürgen Habermas, "Dogmatism, Reason, and Decision: On Theory and Praxis in Our Scientific Civilization," in *Theory and Practice*, trans. John Viertel (Boston: Beacon Press, 1988).
[73] Müller, *A Dangerous Mind*, 70.
[74] Schmitt actually set out to criticize positivist and formalist jurisprudence as formulated by Weber, not Kelsen, who would only become the main target of his ire in the 1920's. McCormick, *Carl Schmitt's Critique of Liberalism*, 207.

Doctrine of the Legal Norm. Although he was commonly identified as an arch positivist because of the role he would come to play in the *Methodenstreit*, Kelsen's Pure Theory developed out of a critique of the Labandian tradition of statutory positivism. The aim of this school of thought had been to try to establish the formal autonomy and independence of public law and the state it defined from "extralegal" factors such as politics and ideology. Their understanding of "positive law" was designed as a rebuke to the natural law tradition, which for liberals and conservatives alike had been sullied by its use to justify the excesses of the French Revolution. Although intended as a "rational" foundation for constructing and evaluating law, natural law could not solve the problem of who decides on its proper interpretation. It thus exposed the state to the very debilitating arbitrariness it ostensibly sought to restrict. Legal positivism thus formed as an attempt to give the state and the system of positive law a rational foundation without invoking some universal and natural constants.

The Historical School of Friedrich von Savigny had already tried to do this by grounding the validity of law in the concrete history of a specific people. Early positivists, like Carl Friedrich von Gerber and Paul Laband, had opted instead to root it in already existing law, "an underlying quasi-organic unity of German law" expressive of a "state's will" that mysteriously correlated with the unified will of society.[75] This meant that all administrative ordinances and statutes were viewed as products of the state's unitary will.[76]

Kelsen was a liberal jurist from the formerly multinational Hapsburg Empire, however, and could not abide rooting the legal system in the fiction of a unified and a homogenous society. This latter was not only a fiction, but also one that would expose the legal system to all sorts of "caprice"—precisely what the positivists had hoped to avoid. In attempting to deal with this problem, Kelsen's Pure Theory of Law also presented a solution to Jellinek's paradox, by way of a careful analysis and critique of the concept of the will. The dominant interpretation of public law doctrine at the time, Kelsen argued, suffered from a debilitating ambiguity, which arose from its conflation of two incompatible versions of the will: the empirical, causal will, on the one hand, and the free and autonomous "ethical will," on the other.[77] Taking his cue from the Kantian transcendental/empirical and related value/fact distinction, Kelsen insisted that the "transcendental" autonomy of the legal system was logically independent of the empirical will of the state or its individual citizens.[78] The normative "ought" was to be radically distinguished from the empirical "is," the "legal person" from the concrete human being. The basic unit of law and the fundamental object of "legal cognition" was thus neither a causal will, a concrete action, or the human being, but rather the *Rechtssatz*, literally the "legal principle" or "legal norm."

Although fundamentally a normative "ought," the *Rechtssatz* was nevertheless not simply an expression of "ethical" normativity. Its validity had nothing to do with the ethical correctness of the law or with "justice." Instead, its validity was purely formal, derived from the legal system's own internal criteria. Attributions of legal guilt, for example, had no intrinsic connection to judgments of moral responsibility, because legal guilt is imputed to the "artificial" body of the "legal person," not the "natural" body of the human being (although both of the get punished!). The normativity of law,

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[75] Caldwell, *Popular Sovereignty and the Crisis of German Constitutional Law*, 14.

[76] A version of this positivism continued to dominate early Weimar constitutional jurisprudence. Only now it affirmed the link between, if not the *identity* of the state's will and popular sovereignty as represented in parliament. The unity of "society" thus once again took recourse to the organic "nation" that had formed the basis of the German "National Liberal" tradition in the previous century.

[77] Nineteenth-century legal scholars had "blurred fundamentally different conceptions of the will and asserted causal effectiveness and ethical autonomy where none could logically be proven to exist." Caldwell, *Popular Sovereignty and the Crisis of German Constitutional Law*, 48–49.

[78] For Kelsen's Neo-Kantianism, see Stanley L. Paulson, "The Neo-Kantian Dimension of Kelsen's Pure Theory of Law," *Oxford Journal of Legal Studies* 12, no. 3 (1992): 311–32.

in this sense, was even more "pure" and autonomous than the normativity of ethics, because the latter necessarily had to take into account the concrete existence of the individual human.[79]

The "state's will" of public law jurisprudence followed the same principles in Kelsen's doctrine. As a *legal* entity, the state was not an "organism" bearing a concrete and causal will, but only a legal fiction, a point of "ascription" [*Zurechnung*] to which legal norms could be addressed. This meant that, as a legal entity, the state had nothing to do with power or politics. Labandian statutory positivism had resulted in Jellinek's paradox precisely because it conflated these two forms of the will, forcing it to confront the impossible problem of how a purely ideal and normative law could possibly bind the power of the state's will. For Kelsen this was simply a false problem. As a legal fiction, the state could not, by definition, violate the law, since as such it is nothing but an immanent construction of the legal system itself.[80] Unlike the statutory positivists, who attempted to root law in some sort of prelegal general will, Kelsen argued that "the 'will' of the people was a retroactive construct determined by the procedures of constitutional law."[81] As far as the jurist was concerned, just like the state, the will of the people was simply a legal fiction.

Well before the *Methodenstreit*, in the closing year of the First World War, Kelsen began to supplement his Pure Theory of Law with a new "dynamic" perspective that would help account for the central blind spot of his theory: how law or legal systems are constructed in the first place. How else could one account for the generation of the immanent criteria that governed the validity of other laws? Every legal system thus had to contain a kind of hierarchy, in which every legal norm depended for its validity on a higher norm. But one had to avoid falling into the trap of infinite regress that plagued causal reasoning. Even constitutions are usually created according to some prior norm, and so on and so forth. Where was a "break" or a "gap" to be found, without simply resorting to the stopgap of positing a "prelegal will?"

At the peak of the hierarchy lay what Kelsen called the "basic norm," a norm that cannot be derived from other norms, laws or principles. This was the sole norm that could breach law's hermetic seal from the rest of the world, for unlike the rest of the system it came in direct contact with the concrete human will that posited it.[82] It did not rest on some founding "act" of a prelegal general will, however, as in social contract theory, but was rather a "hypothetical presupposition" that the legal system was, *in fact*, valid. It functioned as a kind of transcendental a priori for the legal system, not "causing" the system to come into existence, but rather serving as its logically necessary condition. But the question of the "origin" of this norm, and its connection to concrete will of a really existing society, was, at best, overlooked, and at worst, deliberately repressed.

By so staunchly insisting on the law's independence from politics, Kelsen drew the ire of a rapidly ascending movement of antipositivists who had been galvanized by Weimar's early constitutional crises, thus making him the primary avatar of legal positivism despite his critiques of the statutory tradition. Carl Schmitt was but the most radical and conservative of these antipositivists, many of whom belonged, like Heller, to the social-democratic left. These critics pointed to the increasingly interventionist role of the administrative state in society as evidence for the impossibility of a pure theory of law like Kelsen's. The *Rechtsstaat* was bound ever more to the pressures of an increasingly massified and democratized society, such that it was often tasked with

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[79] Caldwell, *Popular Sovereignty and the Crisis of German Constitutional Law*, 47–48. This did not mean, however, that law was not also open to criticism from the "outside," according to moral and political criteria.

[80] Caldwell, 48–49. This did not mean that law was "only" normative, that law had no concrete existence. Rather, Kelsen simply claimed that there is no *necessary* connection between law's normative and existential modes. Each depended on the methodological lens used to observe the law.

[81] Caldwell, 86.

[82] Stolleis, *A History of Public Law in Germany, 1914-1945*, 155–57.

intervening in unpredictable or novel situations not yet or not wholly circumscribed by extant law. This meant that its discretion in issuing statutes and ordinances did not derive directly from the law, but rather involved a moment of agency and intervention external to the legal system, thus eroding Kelsen's claim that the will of the state is merely a legal fiction.[83]

Though the primary concern of the antipostivist left, the problem of the activist social-administrative state was only the beginning for Carl Schmitt. As William Scheuerman has persuasively argued, Schmitt's fixation on the problem posed by legal indeterminacy was an early and constant component of his legal thinking, stretching from his earliest work on application of the law by judges, through concerns about the administrative act, to his famous and radically decisionistic theories of dictatorship, law, and sovereignty.[84]

It was a key assumption of legal positivism that law could be sufficiently formalized as to specify legal behavior in every situation. Judges were simply neutral and impersonal executors of the law, which meant that legal interpretation had to approximate the determinacy and precision of the natural sciences. The legal system, accordingly, was supposed to be more or less "automatic." To be sure, virtually every positivist took a somewhat more nuanced position than this, recognizing various caveats and often specifying the role of the legislature in changing or creating new law to handle novel situations.[85] But in general, the aim of positivism was to eliminate indeterminacy in the legal system, because any lingering trace of it would force one to admit the presence of "caprice" or "arbitrariness." And this, in turn, would be catastrophic for any legal system whose legitimacy was rooted, as Weber described it, in its formality and rationality (so long as rationality was understood in terms of an ideal of mechanical predictability, calculability, and the absence of caprice).

Schmitt was hardly the first to raise this concern. In the Third Critique, Kant described the role of the transcendental imagination in making determinate judgments as the capacity to match sensory perception to the concepts of the understanding, in short, in making cases fit a rule.[86] Within legal theory as well, the idea that all legal norms require a certain amount of "discretion" or judgment was old hat.[87] It had been a central plank of the Free Law Movement in the waning years of Wilhelmine Germany, for example. But whereas this group of scholars didn't find indeterminacy to be a fatal flaw of formal law, but rather something that simply had to be taken into account when formulating legal norms,[88] Schmitt shared with positivists like Kelsen the assumption that indeterminacy undermines the essential function of law.[89] No amount of legal acrobatics, in Schmitt's eyes, could ever banish this residue of indeterminacy. At most—and at worst—legal formalism could hide it, while power surreptitiously continued to operate beneath its cover.

But all was not hopeless. Against the ideal of impersonal and mechanical bureaucratic rationality promised by positive law, Schmitt mobilized the voluntaristic forces of the "person." Schmitt self-consciously pitted the voluntarism of the personal decision against a conception of the law that he identified, as John McCormick has made clear, with a conception of "liberalism as

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[83] For Schmitt, "pervasive legal indeterminacy is a natural by-product of modern forms of state 'steering.' The unavoidability of deformalized law simply demonstrates the anachronistic nature of liberal legalism." William E. Scheuerman, *Carl Schmitt: The End of Law* (Rowman & Littlefield, 1999), 120.

[84] William E. Scheuerman, "Legal Indeterminacy and the Origins of Nazi Legal Thought: The Case of Carl Schmitt," *History of Political Thought* 17, no. 4 (Winter 1996): 571; William E. Scheuerman, "After Legal Indeterminacy: Carl Schmitt and the National Socialist Legal Order, 1933-1936," *Cardozo Law Review* 19 (1998 1997): 1743–70; Scheuerman, *Carl Schmitt*.

[85] Scheuerman, *Carl Schmitt*, 19.

[86] Kant, *Critique of the Power of Judgment*.

[87] Ernst K. Pakuscher, "The Use of Discretion in German Law," *The University of Chicago Law Review*, 1976, 94–109.

[88] Scheuerman, *Carl Schmitt*, 21.

[89] Juan Alberto Del Real Alcalá, "The Controversies about Legal Indeterminacy and the Thesis of the 'Norm as a Framework' in Kelsen," *European Journal of Legal Studies* 6 (2013): 174–88.

technology." Schmitt's legal-political theories are inseparable from his interpretation of modern technology, an interpretation indebted to Weber's analytical categories. Liberalism as embodied in legal positivism, formalism, and parliamentary proceduralism were essentially species of "the spirit of technicity [*Technizität*]"—not simply "dead" material machines, but a totalizing mindset that defined reality in terms of technical or instrumental categories. This conception of law as a vehicle of technicity was already made explicit in Weber's conception of bureaucratic-legal authority. For this ideal type, law appears as eminently calculable, such that in making a decision the judge essentially behaves like an automaton.[90] In *Economy and Society*, for instance, Max Weber registered with acuity a prevailing cultural resistance to the phenomenon of legal automatism, in both reality and in legal positivist ideology, in which purposive decision-making behavior appears to take place without the participation of a subjective human will: "The conception of the modern judge as an automaton into which the files and the costs are thrown in order that it may spill forth the verdict at the bottom along with the reasons, read mechanically from the codified paragraphs—this conception is angrily rejected, perhaps because a certain approximation of this type is implied by a consistent bureaucratization of justice."[91] But what for Weber was simply a fact of modern life to be accepted and managed with stoic reserve had appeared to many skeptical observers, Carl Schmitt foremost among them, as the false ideology of a technological nihilism to be rejected at all costs.[92]

A seemingly unadulterated embodiment of Weber's ideal type of bureaucratic-rational rationality, Kelsen's legal formalism thus struck Schmitt as a paradigm of the modern "spirit of technicity," itself a kind of demonic and even *gnostic* power that concealed its own voluntarism and its own qualitative, and worldly existence.[93] Abstract formalism was thus both normatively deficient and empirically harmful: it failed adequately to capture the complexities of concrete reality, and in doing so performed a substantial harm to the authentic "substance" of reality: the person.

The point was not to do away with law as such, but to recognize its limitations as a vehicle of modern social order. Schmitt, after all, was no postmodernist celebrating the reality of indeterminacy, but a deeply reactionary conservative desperately seeking order at all costs. His notion of order, moreover, still appealed to the ideal of determinacy. Legal indeterminacy still had to be solved—it just couldn't be solved within the law itself. In order to plausibly confront the legal indeterminacy repressed by liberal positivism and recover the determinacy of law, one needed only to turn to the person who ultimately decides in the given situation: the judge, in the wholeness of their concrete *person*. For Schmitt the "person" represented an irrational moment of transcendence, containing that inexplicable something "extra" that made concrete and contextual judgment possible in situations of indeterminacy. Against the indeterminacy of concrete reality, only the indeterminacy of the inscrutable will. But given the impossibility of rationally determining the behavior of judges, the only way to ensure a consistency of application approaching determinacy across society—and therefore political *order*—would be to homogenize the judiciary. An idea implied as early as 1912, as Scheuerman has argued, it would ultimately develop into Schmitt's notorious call in 1935 to make the judiciary *racially* homogeneous as a solution to the problem of indeterminacy.[94]

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[90] "According to Schmitt, liberal legal theory avoids the reality of jurisprudence by denying the existence of 'gaps' within the law and consequently demotes judges to the status of mere vending machines that mechanically dispense the law, without intellectual reflection or active contribution." McCormick, *Carl Schmitt's Critique of Liberalism*, 207.

[91] Max Weber, *From Max Weber: Essays in Sociology*, ed. Hans Heinrich Gerth and C. Wright Mills (New York: Oxford University Press, Galaxy, 1958), 219.

[92] McCormick, *Carl Schmitt's Critique of Liberalism*, 206–48.

[93] Carl Schmitt, "The Age of Neutralizations and Depoliticizations," in *The Concept of the Political: Expanded Edition*, trans. George Schwab, Enlarged edition (Chicago: The University of Chicago Press, 2007); McCormick, *Carl Schmitt's Critique of Liberalism*, 45, 66.

[94] Scheuerman, *Carl Schmitt*, 24.

If this voluntaristic-personalistic moment was essential for Schmitt at the level of legal application, it was even more so at the level of constitutional sovereignty. Far more important than the application of law by the judge was the very nature of the relationship between law and political power. What began as a theory of dictatorship that Schmitt articulated during World War I evolved into a complete theory of political sovereignty completely unbound from any obligation to the law, resting entirely on the sovereign's voluntary capacity for making a decision at the moment of the most existential indeterminacy: the "exception."[95]

For Schmitt the concrete existence of this unitary will power, as the site of the political, took pride of place over any system of law. In terms of constitutional theory, this meant that where Kelsen had posited the hypothetical basic norm, Schmitt found instead the unified general will of a concrete, historical people. In this respect (i.e. constitutional sovereignty), Schmitt was a kind of radical democrat. Like the basic norm—and like God—the democratic will of a unified "people" assumed a status transcendent to the constitution and the legal system founded upon it.[96] But where Kelsen could simply connect the basic norm to the legal system through methodical deduction, leaving only status of the origin of the basic norm in a liminal state, the link between the people's will and the state or legal system was not so straightforward for Schmitt. The radical conservative jurist had to confront a question that had dogged radical democratic theories of sovereignty since the French Revolution: how was the general will translated into a constitution or a state? There was an inevitable moment of mediation, of *representation*, that bridged the distance between a people and the constitution that founded a state by acting in the name of the people. This would be all the more important were the "people" internally fractured or atomized.

The unitary will of the people could only be represented and thus come to expression in the concrete *person* of a unitary executive. Much like the statutory positivists he reviled, Schmitt's notion of a "substantive" constitution derived from an anthropomorphic assumption that the state has a *real* will grounded in the concrete and pre-legal existence of a "unified people." But unlike liberal positivists, Schmitt rejected parliament as the authentic representative of this democratic will in favor of executive authority, because, as a hapless captive to special interests, parliament was a vehicle of social pluralism and fragmentation. Instead, the "people" came into being not through participatory institutions, but through "acclamation" to the sovereign that represented them.[97]

Schmitt's solution to Jellinek's paradox was therefore quite simple. In fact, he didn't really solve it, so much as sharpen the horns of the dilemma so as to force a decision between them: will over norm, voluntarism over mechanism. In that sense he remained firmly embedded in the same metaphysical pattern that had governed the German public law tradition since the 19th—perhaps even the 17th—century. For Schmitt, order was not composed of some strange brew of voluntarism and automatism, but a continuously recreated product of voluntarism alone. Mechanistic order was no real order at all, but a will to chaos disguised as a form of ordering.[98]

His incessant invocation of "substance" and "personalism" against the formalism and functionalism of technology might at first seem to suggest Schmitt's fealty to a fundamentally

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[95] Carl Schmitt, *Die Diktatur: von den Anfangen des modernen Souveranitatsgedankens bis zum proletarischen Klassenkampf* (Berlin: Duncker & Humblot, 1989); Carl Schmitt, *Political Theology: Four Chapters on the Concept of Sovereignty*, trans. George Schwab (Chicago: University of Chicago Press, 2010).

[96] Although as Caldwell points out, there is also an important ontological difference here too: Kelsen's basic norm is a hypothetical *transcendental*, while Schmitt's notion of the will was real and *transcendent*. Caldwell, *Popular Sovereignty and the Crisis of German Constitutional Law*, 102.

[97] Mitchell Dean, "Three Forms of Democratic Political Acclamation," *Telos* 2017, no. 179 (2017): 9–32.

[98] Jens Meierhenrich and Oliver Simons, "'A Fanatic of Order in an Epoch of Confusing Turmoil': The Political, Legal, and Cultural Thought of Carl Schmitt," in *The Oxford Handbook of Carl Schmitt*, ed. Jens Meierhenrich and Oliver Simons (Oxford University Press, 2016).

premodern ontology of the sort rebuked by Cassirer, Blumenberg and Luhmann. There is some truth to this. The claim that a political "substance" grounded in a personalist will power was needed to counter the empty technological functionalism that defined bourgeois liberalism echoed conservative sentiments that had a well-established pedigree.[99] Schmitt's position on causality is thus particularly instructive. Unlike Kelsen and many others, Schmitt did not identify the concrete, existential realm of "substance" with mechanical causality. Kelsen's Pure Theory of Law may have been an attempt to exclude substance and causality from law, but for Schmitt, Kelsen's legal formalism represented precisely the very same meaningless automatism that resulted from a causal interpretation of reality. Both jurists aimed to restrict the reach of causality: one in the name of substance, the other against it.

Schmitt, in short, operated with a different concept of extra-legal reality than Kelsen. For him reality was not fundamentally a causal nexus: like Nietzsche, Schmitt considered causality merely an appearance afforded by the "spirit of technicity."[100] Authentic reality was encountered only in the experience of the gap or the "exception,"[101] the existence of which undermined positivism's claim to establish a legal system without indeterminacy. Hence, beneath his traditionalist opposition of "substance" and "formalism," Schmitt invoked an almost "*post*modern" ontology in his discussion of legal indeterminacy, which helps account for his persistent appeal among some critical theorists.

In essence, Schmitt sharpened and intensified the antinomy of voluntarism and automatism that implicitly animated so much of modern German jurisprudence. He thus made palpable a metaphysical framework that had long been more or less assumed, even if he ultimately chose to remain within it. The debate between Kelsen and Schmitt concretized and simplified a dynamic tension dating back centuries, but in doing so also altered the function of the antinomy within legal science. Essentially, the *Methodenstreit* reversed a longstanding tendency to align the voluntary with the normative and the automatic with the factual and empirical. The former had belonged to law, the latter to science. But as nineteenth-century European liberals began to treat law as a restraint on the arbitrary use of power, a trait owing to its increasingly scientific, impersonal, objective, and predictable quality, the normative realm of law could approach the regularity and harmony promised by the figure of automatism.[102] The "will" to be constrained lost its intrinsic connection to the normative, and became instead a volatile, real, and irrational power outside of the law. Rather than breaking with or overcoming the antinomy, Schmitt simply took advantage of its already extant configuration within public law jurisprudence by simply declaring the primacy of one side over the other. His rhetorical "genius" amounted to little more than his opportunistic willingness to consecrate and exploit the antinomy's immanent historical dynamic.

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[99] Warren Breckman, *Marx, the Young Hegelians, and the Origins of Radical Social Theory: Dethroning the Self* (Cambridge University Press, 1998).

[100] Schmitt, "The Age of Neutralizations and Depoliticizations"; For Nietzsche's critique of cauality, see "The Four Great Errors," Friedrich Wilhelm Nietzsche, *Twilight of the Idols, or, How to Philosophize with a Hammer*, trans. Duncan Large, Oxford World's Classics (Oxford: Oxford University Press, 1998), 26–32; Maudemarie Clark, "Nietzsche on Free Will, Causality, and Responsibility," in *Nietzsche on Ethics and Politics* (Oxford ; New York: Oxford University Press, 2015).

[101] McCormick, *Carl Schmitt's Critique of Liberalism*, 227; Blumenberg would have categorized these two positions as Hans Blumenberg, "The Concept of Reality and the Possibility of the Novel," in *New Perspectives in German Literary Criticism*, ed. Richard E. Amacher and Victor Lange (Princeton: Princeton University Press, 1979).

[102] "This ideal of objectivity is a political as well as a scientific one. Objectivity means the rule of law, not of men. It implies the subordination of personal interests and prejudices to public standards." Shortly thereafter: "Objectivity as impersonality is often conflated with objectivity as truth." Theodore M. Porter, *Trust in Numbers: The Pursuit of Objectivity in Science and Public Life* (Princeton, N.J: Princeton University Press, 1995), 74.

» 4. The State Against Nature and the Nature of States « Early Modern Sciences of the Artificial

The voluntarism-automatism antinomy that structured German public law jurisprudence through the mid-20th century had deep roots in the intellectual history of European—but especially German—natural philosophy, metaphysics, law, statecraft, and technology. The normative/empirical double and the juridical framing of administrative rationality both stemmed from certain metaphysical presuppositions about the basic constituents of "order" and "organization," reflected in the pervasive and multifarious use of machine and organism metaphors. These presuppositions were hardly confined to the realm of law. The nineteenth-century transformations in public law jurisprudence that had paved the way for the *Methodenstreit* owed much to their increasing appeal to the rigorous methods and power of the natural sciences.

The rise of new sciences of state and law partook in the same historical transformations in the concept of nature, reality and rationality that accompanied the birth of the modern scientific revolution.[103] At the center of so many early modern debates over law and "good government" stood a question concerning the rational and "scientific" character of law. Jurisprudential concepts assumed predicates associated with the burgeoning natural sciences, while political and legal concepts of order helped natural philosophers conceptualize the regularity and dependability they observed in—or desired from—nature. In particular, for both political-social and natural scientific domains, the problem of "arbitrariness" was paramount, because it threatened the regularity, dependability, and determinacy of law. The rationality of law and of nature coincided with the absence of arbitrariness and caprice. In short, whether in nature or in society, early modern Europeans' most fundamental concepts of order and organization appealed reflexively to a juridical semantics unencumbered by the sharp distinction later drawn between the normative and empirical.

Nowhere was this more evident than in that semantically rich domain that rose to prominence around the seventeenth century, "natural law." A concept activated as early as the Roman Republic and central to medieval European legal thought, the "modern" concept of natural law did not arise until roughly the sixteenth century, gaining a new formulation and prominence through the work of Hugo Grotius, who developed it to help manage relations between states in the wake of that century's wars of religion.[104] In the second half of the seventeenth century, natural law doctrine appeared as a means of generating the criteria for addressing the specific conditions confronting the German-speaking lands of Central Europe in the aftermath of the Thirty Years War.

Among these was a problem of legitimation arising from the confessionalization of state and international politics. With territorial states of different confessions confronting one another outside of the formal sanction of universal legal norms, appeals to religious norms as a transcendent sanction for regulating interstate conflict no longer held water. Central Europe in the seventeenth century was thus the site of a remarkable efflorescence of projects of legal codification. But these codifiers were confronted by a fundamental challenge: these codes would need to find methods and sources of legitimation. It was impossible to deny that the newly created systems of positive law

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[103] The classic account of the interpenetration of the political and the scientific in the seventeenth century is Steven Shapin and Simon Schaffer, *Leviathan and the Air-Pump: Hobbes, Boyle, and the Experimental Life*, Reprint edition (Princeton, N.J: Princeton University Press, 2011); Cassirer also reflected, to some degree, on the close relationship between metaphysics and politics in the Enlightenment. Ernst Cassirer, *The Philosophy of the Enlightenment*, ed. Peter Gay, trans. Fritz C.A. Koelln and James P. Pettegrove (Princeton (N.J.): Princeton University Press, 2009); Mayr, *Authority, Liberty, and Automatic Machinery in Early Modern Europe*.

[104] The classic account of this is still Richard Tuck, *Natural Rights Theories: Their Origin and Development* (Cambridge University Press, 1981).

were ultimately the product of human decision. By no means did seventeenth-century states abjure appeals to religious legitimation altogether. And Aristotelian political philosophy, which appealed to a natural teleology, also remained relatively robust for much of the seventeenth century in central Europe. But overall, there was a general tendency to move from Aristotelian and theological argumentation towards more "practical," "civil," and rational justifications of law.[105]

As part of the wider scientific revolution, the transformation in German legal thinking also took place in new academic institutions built to directly address the practical problems of governance that came to a head following the sixteenth-century wars of religion and the Thirty Years War. Beginning in the seventeenth century, attempts to codify and *rationalize* the law in Central Europe gave rise to a new academic field called *Reichspublizistik*. Under its auspices natural law doctrine would become tethered to the rising fortunes of political absolutism in the German states.[106] To make law in accord with the light of reason usually entailed an attempt at logical systematization. A rationally systematized legal system could thus function as an anchor, helping to stabilize, legitimate and rationalize post-Reformation, confessional era politics, especially as the authority of the Holy Roman Empire waned with respect to its member states.

Reflecting on this historical moment, Luhmann, like Blumenberg, interpreted the status accorded to nature and natural law in the Enlightenment as a kind of transitional phenomenon in the epochal advent of modernity. For Luhmann, the emergence of positive law around the seventeenth century signaled one of the earliest and most significant manifestations of the arrival of a modern "functionally differentiated" society.[107] Natural law doctrines thus formed an ideological response to a prevailing sense of uneasiness with the experience of the differentiation of a system of positive law untethered from any stable transcendent anchor, a law cast into existence by nothing more than human decision.

In essence, the appeal of natural law doctrines can be read as a response by European states to a "legitimacy crisis" precipitated by the rise of positive law as both a social fact and social project.[108] Initially the semantics of natural and positive law in the early modern period maintained the ancient topos of the "imitation of nature."[109] The modern concept of natural law presumed an ideal unity of the rational-normative and the empirical, whereas positive law, as an imitation or interpretation of natural law, was deficient in both respects and could only strive towards the teleological ideal promulgated by nature. The artificial, in other words, still required reference to nature's immanent purposes for cultural legitimation.

Seventeenth-century uneasiness with the prospect of a fully independent notion of the artificial was already evident in one of its earliest and most strident champions. One needs only think of Hobbes' appeal to a form of natural law to provide a rational explanation for the rise of artificial, positive law for an example.[110] The "state of nature" concept served as a means to legitimate the

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[105] Reinhart Koselleck, *Critique and Crisis: Enlightenment and the Pathogenesis of Modern Society* (Cambridge: The MIT Press, 1998); Ian Hunter, *Rival Enlightenments: Civil and Metaphysical Philosophy in Early Modern Germany* (Cambridge University Press, 2001).

[106] Stolleis, *Public Law in Germany*, 27.

[107] His earliest discussions can be found in Niklas Luhmann, *Öffentlich-rechtliche Entschädigung rechtspolitisch betrachtet* (Berlin: Duncker & Humblot, 1965); Luhmann, *Grundrechte als Institution*; See also Niklas Luhmann, "Positives Recht und Ideologie," in *Soziologische Aufklärung 1: Aufsätze zur Theorie sozialer Systeme* (Wiesbaden: VS Verlag für Sozialwissenschaften, 2009) Originally published in 1968.

[108] Similar arguments can also be found in some other famous contemporary works: Koselleck, *Critique and Crises*; Jürgen Habermas, "Natural Law and Revolution," in *Theory and Practice*, trans. John Viertel (Boston: Beacon Press, 1988).

[109] Hans Blumenberg, "'Imitation of Nature': Toward a Prehistory of the Idea of the Creative Being," trans. Anna Wertz, *Qui Parle* 12, no. 1 (2000): 17–54.

[110] On seventeenth century readings of Hobbes in Germany, see Horst Dreitzel, "The Reception of Hobbes in the Political Philosophy of the Early German Enlightenment," *History of European Ideas* 29, no. 3 (September 2003): 255–89.

sovereignty of artificially constituted political authority. The concept of "nature" in this case occupied an uneasy position, at once dictating the basic principles of rationality, while at the same time ensuring the inevitability of irrational social outcomes in the absence of the artificial and voluntaristic intervention of the social contract. This intervention, however, was enabled and derived solely from the very tenets of natural reason. This allowed Hobbes to draw a distinction between natural and positive law, cementing the autonomy of the latter as a product of the artificial state. The artificial state and its law did not strive to accord with natural law, but were, at most, 'occasioned' by it. The artifice of the legal and political form of the state, for Hobbes, was a necessary and therefore rational response to the chaos induced by natural law in the state of nature. It was an expression of the rational principle of "self-preservation." In other words, nature no longer contained universal ethical principles of justice to which positive law could appeal, and so the legitimacy of positive law had nothing to do with nature, ethics, or revealed theology. Instead, political legitimacy and sovereignty derived solely from a *voluntary* act of artificial creation.

Not only the content of Hobbes's account of the creation of the artificial state from out of the state of nature, but even his very mode of argumentation reflected this this novel sentiment towards artificiality. As a *hypothesis*, a speculative limit case, rather than a description of historical reality, the state of nature belonged to that burgeoning scientific constructivism detectable in the contemporaneous work of Bacon and Boyle.[111] For them, the figure of nature was less a higher reality or "source" of rationality so much as a hypothetical postulate of scientific reason.

By eliding the distinction between artificial and natural, the mechanistic natural philosophies of the early seventeenth century also prepared the way for the modern revaluation of artificiality. To the degree that nature could be rendered in mechanical terms, it was a relatively simple task to repurpose natural law into a vehicle for the legitimation of positive law. Allied with branches of the new "natural philosophy," natural law made extraordinary appeals to mechanistic machine metaphors to characterize the rationality of a legal system, just as Deist philosophers referred to the universe as God's clockwork.[112]

Alongside the growing significance of public law and its appeals to an increasingly "mechanized" and non-teleological conception of natural law, the seventeenth- and eighteenth centuries were also marked by the rise of new disciplines that anticipated contemporary "political science" (as opposed to the ancient tradition of political philosophy), which focused on the practical activities of states rather than their legal and normative authorization. The German states of that era have long been held up as the progenitors of this new, practical science of government. Known initially as "cameralism," this approach, which has been dated as far back as 1555, initially crystallized as a formalized science of resource management in the service of German princes looking to consolidate and centralize their territorial sovereignty.[113] Although parallel and comparable in many respects to mercantilism in France and England, but unlike the predominantly

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111 Shapin and Schaffer, *Leviathan and the Air-Pump*.

112 Numerous recent studies have extended and complicated Otto Mayr's contrast netween the types of technological metaphors used to describe politics in England and the European continent in the seventeenth and eighteenth centuries. This period witnessed the proliferation of metaphorical flows between legal and political conceptions of order and images of the mechanical behavior of automatic machines. Mayr, *Authority, Liberty, and Automatic Machinery in Early Modern Europe*; For a brief selection of some important recent contributions, see Voskuhl, *Androids in the Enlightenment*; Sheehan and Wahrman, *Invisible Hands*; Riskin, *The Restless Clock*; David William Bates, *States of War: Enlightenment Origins of the Political* (Columbia University Press, 2012); David Bates, "Cartesian Robotics," *Representations* 124, no. 1 (November 2013): 43–68.

113 Two major works in particular have stirred much of the recent critical interest in cameralism and the "administrative state": Michel Foucault, *Security, Territory, Population: Lectures at the Collège de France, 1977-78*, ed. Michel Senellart, trans. Graham Burchell (New York: Palgrave Macmillan, 2009); James C. Scott, *Seeing like a State: How Certain Schemes to Improve the Human Condition Have Failed* (New Haven, Conn: Yale University Press, 1999).

economic and financial character of the latter, cameralism was advanced by political scientists *avant la lettre*, who focused on maintaining what Marc Raeff called a "well-ordered state," rather than on increasing the prince's wealth.[114] And unlike political or legal philosophy, it aimed not to give a normative-rational account of the origins of the sovereignty of states, but only to provide the kind of technical expertise required to manage a territory and its population efficiently. Concepts like democracy, civil society, or rights were simply not part of its vocabulary.

Parallel to the ascendant mercantilists and physiocrats to the west, German cameralists presided over some of the most powerful transformations in the relationship between state and society rooted in knowledge-based techniques for procuring order and power. Driving its enterprise was the desire to collect, tabulate and analyze, in short, to *quantify*, vast new amounts of information about resources, territory, and eventually, *population*.[115] The emergence of modern statistics arose at this precisely this juncture, deriving from "*Statistik*," the German term for what, beginning in the 1660's in England, was called "political arithmetic." A technique designed to aid bureaucratic centralization and standardization, it also abetted the nineteenth-century rise of the visibility of the "social" as a distinctive entity apart from the "state," continuing the emergence of "civil society… as the corollary of a depersonalized state authority" in the previous century.[116] The society that appeared first as an object of technical state control and manipulation became the basis for the latter's legitimacy.

Unsurprisingly, cameral science was happy to use the machine metaphor to describe the form of organization of government, sharing with natural law doctrine the propensity to invoke the clock metaphor as its model for the state.[117] Johann Beckmann, in a 1777 text that first used the term "technology," described the state as "the most artificial machine that men have ever produced, in which a countless number of large and small wheels and drives intermesh," hoping to thereby "convey an internal differentiation of parts which function harmoniously together."[118] And Albion Small, one of cameralism's first and most influential modern historians, argued in 1909 that cameralism "should not be viewed primarily as an early economic doctrine, but [as] 'an administrative technology.'"[119] The originally biblical image of a nested complex of "wheels within wheels" provided another metaphor for the mysterious and "providential" harmonization of an autonomously self-organizing state-society hybrid in the eighteenth century.[120] In short, machine metaphors were mobilized both to legitimate the extension of the power of the absolutist state *and* to help eliminate or at least restrict the appearance of arbitrariness and subjectivism (i.e. pure

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[114] Marc Raeff, *The Well-Ordered Police State: Social and Institutional Change Through Law in the Germanies and Russia, 1600-1800* (New Haven: Yale Univ Pr, 1983); Keith Tribe, "Cameralism and the Science of Government," *The Journal of Modern History* 56, no. 2 (1984): 263–84; Thomas Ertman, *Birth of the Leviathan: Building States and Regimes in Medieval and Early Modern Europe* (Cambridge, UK ; New York: Cambridge University Press, 1997); Andre Wakefield, *The Disordered Police State: German Cameralism as Science and Practice* (University of Chicago Press, 2009); Martin Loughlin, *Foundations of Public Law* (Oxford University Press, 2012).

[115] Theodore M. Porter, *The Rise of Statistical Thinking, 1820-1900*, Reprint edition (Princeton, N.J.: Princeton University Press, 1988); Porter, *Trust in Numbers*.

[116] Jürgen Habermas, *The Structural Transformation of the Public Sphere: An Inquiry into a Category of Bourgeois Society*, trans. Thomas Burger and Frederick Lawrence, Sixth Printing edition (New York: The MIT Press, 1991), 19; For similar arguments about the connection between the rise of the modern state and the concept of "society," see Hannah Arendt, *The Human Condition*, 2nd ed (Chicago: University of Chicago Press, 1998); Scott, *Seeing like a State*.

[117] Barbara Stollberg-Rilinger, *Der Staat als Maschine.: Zur politischen Metaphorik des absoluten Fürstenstaats.*, 1 edition (Berlin: Duncker & Humblot, 1986).

[118] Lindenfeld, *The Practical Imagination*, 33. Beckmann quoted from *Anleitung zur Technologie* **find reference**

[119] Loughlin, *Foundations of Public Law*, 417. Quoted from Small, *The Cameralists: Pioneers of German Social Policy* (Chicago: University of Chicago Press, 1909), 591.

[120] Sheehan and Wahrman, *Invisible Hands*, 47–50.

voluntarism) in the exercise of that power.[121] As with legal codification, the development and institutionalization of rational bureaucratic procedures fostered the differentiation of an autonomous state apparatus independent of the relations of personal dependence deriving from the traditional authority of the territorial prince.[122]

Although neither legal science nor political "philosophy" in the traditional sense that it did not aim to provide a normative account of the legitimacy of the state, cameralism nonetheless did presuppose one such normative image. It essentially advanced an ideal of the state as an ordering power, which, by the eighteenth century would come to be known as the *Polizeistaat*. Often translated literally as the "police state," the *Polizeistaat* more accurately designated a state oriented by the task of rationally steering society through "good policy," an ideal traditionally exemplified by Prussia under Frederick the Great. In short, it was a state rationally organized around the pursuit of clearly delimited *ends*, above all, those items like public welfare that could be declared in the interest of the commonweal.[123] It has thus often been evaluated as one of the primary vectors by which the world came ever more under the sway of instrumental (ends/means) rationality.[124]

If the *Polizeistaat* ideal elicited a wide variety of mechanical associations, its primary successor would not be outdone in staking claim to the mechanical, objective, standardized and scientific. The basic principles of the *Rechtsstaat*, deriving primarily from the Republican tradition, boiled down to the constraint of political authority by law, usually rooted in a constitution, in order both to protect civil society and to give it a basis for articulating its claims against the state. Although the idea of the *Rechtsstaat* drew on the precedents set by "rule of law" liberalism, developed in England and France with the resources of natural law, by the time it appeared in nineteenth-century Germany it had turned decisively *against* natural law. At first, an increasingly strident bourgeoisie came to mobilize the resources of natural law against the absolutist state in the name of civil society or popular sovereignty during the eighteenth century.[125] But in the wake of the French Revolution, especially in the form of the Terror and the Napoleonic Wars, both liberals and authoritarian conservatives more or less agreed that the natural law tradition, far from eliminating arbitrariness, had only exacerbated it. Appeals to natural law were thus viewed as corrosive rather than supportive of the autonomy of the rational state. Law had to be recognized as a human product, that is, as *positive* law.[126]

Much like the Deist clockwork metaphor operative in natural law, the *Rechtsstaat* ideal invoked mechanistic traits like formality, regularity, and homogeneity to describe the law, while ultimately recognizing the origin of law's legitimacy in some form of "will" that transcended that system. The "will" provided a substitute purpose and substance in the place where teleological natural law—itself a functional equivalent for the place of God's providence—had once stood.[127]

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[121] "In some ways, the move to a language of social science was designed to undercut the authority of mere political will, and to replace it with something more detached and objective: simultaneously to vindicate human freedom and to subject it to standards of reason." Theodore M. Porter, "Genres and Objects of Social Inquiry, from the Enlightenment to 1890," in *The Cambridge History of Science*, ed. Roy Porter and Dorothy Ross, vol. 7: The Modern Social Sciences (Cambridge: Cambridge University Press, 2003), 17.

[122] Habermas, *The Structural Transformation of the Public Sphere*, 17.

[123] Howard Caygill, *Art of Judgement* (Oxford: Blackwell, 1989).

[124] Raeff, *The Well-Ordered Police State*.

[125] Stolleis, *Public Law in Germany*, 37–38.

[126] Stolleis, *Public Law in Germany*.

[127] This became especially evident when statutory positivism came to the defense of constitutional monarchy in the mid-late nineteenth-century, especially after German unification in 1871. For these positivists, "the monarch in the monarchical system was something like God in deism. Viewed legally, the monarch was a kind of unmoved mover who submitted voluntarily to the rule of law." Caldwell, *Popular Sovereignty and the Crisis of German Constitutional Law*, 51.

EXCURSUS
INFINITY AS INDETERMINACY
BURIDAN'S ASS AND DECISION AS A PARADIGM OF RATIONALITY

Weber opened "The Logic of Historical Explanation," his text on objective possibility and adequate causation, by contesting that historians' commonplace, still virulent today, which denies the admissibility of counter-factual speculation on historical outcomes. For Weber, reflecting on possible answers to questions such as, 'what would have happened had "Bismarck not decided for war" with Austria in 1866?' were absolutely indispensible components of causal explanation. "For it is precisely this question which touches on the decisive element in the historical construction of reality: the causal significance which is properly to be attributed to this individual decision within the totality of infinitely numerous 'factors' […]"[1] To isolate and evaluate social causality amid the infinite welter of causes required an assessment of imagined counterfactuals whose existence depended on the whims of individual decision.

Of course, Weber would never have justified his steadfast emphasis on individual decision as the result of some unassailable metaphysical principle. For him it was simply an unexplainable correlate of the historian's "interest," a product of the historical *Wertbeziehung*. Certainly, Weber's own emphasis on decision was partly a side-effect of traditional 'Great Man History,' which had prioritized the significance of individual decisions to historical outcomes. But the underlying logic of agency and contingency it presupposed has, if anything, only been amplified in contemporary approaches to historical explanation. Both assume that agency constitutes an antithetical principle with regards to causal-historical determination: a wrench spontaneously thrown into the gears of otherwise linear causal processes. Indeed, it is hard for most to conceptualize agency without reference to some notion of causal necessity to which it is opposed.

So despite Weber's repeated official disavowals of metaphysics, his assumptions about rationality presupposed a metaphysics in which the interlocking logics of decision and causality stem from a prior unity. The rationality of social causality devolved upon a moment of choice, for both the actor and the observer. And behind every rational choice loomed the irrational abyss of values. In Weber's hands, rationality always ran up against the ultimate decision between the very value commitments that made rational action possible in the first place, the decision between "God and the devil,"[2] which denied reasons the capacity to "show us *what* to choose."[3]

To view rationality as a derivative of decision, however, was no innovation of twentieth century illiberal decisionism.[4] The will power and rationality of God that late medieval theologians had worked so hard to surgically separate from one another had been expertly sutured back together in Leibniz's grand metaphysical synthesis. And Weber's rationality belonged to the Leibnizian heritage that ran like an undercurrent through the different traditions Luhmann grappled with in his

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[1] Max Weber, "The Logic of Historical Explanation," in *Max Weber: Selections in Translation*, ed. W. G. Runciman, trans. E. Matthews (Cambridge ; New York: Cambridge University Press, 1978), 111.

[2] Max Weber, "Value-Judgments in Social Science," in *Max Weber: Selections in Translation*, ed. W. G. Runciman, trans. E. Matthews (Cambridge ; New York: Cambridge University Press, 1978), 84.

[3] Stephen P. Turner and Regis A. Factor, *Max Weber and the Dispute over Reason and Value: A Study in Philosophy, Ethics and Politics*, 3 (London: Routledge, 2006), 38.

[4] For recent perspectives on the link between theories of rationality and decisionism, see Daniel Bessner and Nicolas Guilhot, eds., *The Decisionist Imagination: Sovereignty, Social Science and Democracy in the 20th Century* (New York: Berghahn Books, 2018).

reconstruction of functionalism. In addition to the conduit to Leibniz that Cassirer had opened, various branches of the new sciences of complexity, from cybernetics to decision theory, had followed Leibniz in viewing each and every level of reality not only as mathematically describable, but as composed of worlds of possibilities whose relations to one another were not fundamentally causal, but logical, and whose relation to one another converged on a will-power whose rationality consisted in its ability to choose between them.

A brief footnote in "Function and Causality" hints at the Leibnizian provenance of Luhmann's derivation of the concept of substitution, and reinforces its connection to the logic of decision. Luhmann remarked that the idea of identity as an abstract context of possibilities of substitution originally derived from Leibniz's metaphysical principle, as promoted by his 18th century acolyte Christian Wolff, of the identity of indiscernibles.[5] This principle expressed an apparent tautology: if two things differ in none of their characteristics, then they must be metaphysically identical. Absent a criterion by which to decide on a difference between them, upon what grounds could they be said to be anything but identical? For Luhmann, once Leibniz's assumption of metaphysical concreteness had been given up and entities were viewed only in terms of abstractions, functional equivalence merely replicated the formal logic of the principle of the identity of indiscernibles. With respect to the functional abstraction, the equivalence of possible solutions is an identity, and any distinction between possible solutions can only be reintroduced through a shift in levels of abstraction: to see water and sky not only in terms of blueness, but with respect to breathability.

The principle found its most poignant expression in the parable of Buridan's ass, which Leibniz used to exposit the principle of sufficient reason in the *Theodicy*. The parable expressed the principle of sufficient reason in terms of the logic of choice. In its original formulation, the parable described an ass confronted by two identical meadows or bags of hay. Such an ass would starve because it would be unable to decide between them, for its will could call upon no sufficient reason to incline it towards one rather than the other.[6] The point for Leibniz was that such a scenario could never even take place. It was metaphysically impossible. The rationality of the universe was guaranteed by its radical plurality, its infinite variety: by the difference of everything from everything else.[7] The universe was, accordingly, fundamentally complete and decidable. The asymmetry required for a rational decision needed to call upon no arbitrary and fathomless power of the will, for it already inhered in the structure of the universe. Only thus could the ethically necessary freedom of choice be preserved, as a correlate of and not in contradiction with a thoroughly rational universe.

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[5] Ian Hacking, "The Identity of Indiscernibles," *The Journal of Philosophy* 72, no. 9 (1975): 249–56; Gonzalo Rodriguez-Pereyra, *Leibniz's Principle of Identity of Indiscernibles*, First edition (Oxford: Oxford University Press, 2014).

[6] Interestingly, the problem has reappeared in a domain very close to the themes of this dissertation: in digital electronics, where it is referred to as a problem of "metastability" – to simplify, digital circuits usually employ a gate which must convert a continuous voltage into either a 0 or a 1 (a so-called "converter"). Under certain circumstances the voltage input can be such that the gate cannot decide which value to select, requiring an additional component—an "arbiter"—to inject randomness into the metastable state in order to force a decision from an undecidable situation. It is similar to the logical decision problem in computer science known as the "halting problem," initially applied to Turing machines, as both are cases of Gödelian incompleteness. Both metastability and the halting problem have been illustrated with reference to Buridan's ass. This notion of using randomness to break symmetry and create asymmetry would later become one of Luhmann's key arguments about social structures; some external source of contingency is always required to break the undecidability of this symmetry. See also Douglas R Hofstadter, *Gödel, Escher, Bach: An Eternal Golden Braid* (London: Penguin Books, 2000).

[7] Gottfried Wilhelm Leibniz, *Theodicy: Essays on the Goodness of God, the Freedom of Man, and the Origin of Evil*, ed. Austin Marsden Farrer (Charleston, S.C.: BiblioBazaar, 2007), 151; For a contemporary account of the relationship of Leibniz's synthesis to the ideas of complexity and self-organization, see Jonathan Sheehan and Dror Wahrman, *Invisible Hands: Self-Organization and the Eighteenth Century* (Chicago ; London: The University of Chicago Press, 2015), 40–45.

The rational structure of the universe reflected God's decision, and became manifest in the human ability to make rational decisions within it. In short, Leibniz made rationality a function of choice, and true choice a function of rationality.

To the finite individual, however, the infinity of the universe poses the identity of indiscernibles as a practical, rather than a metaphysical problem. The apparent equivalence of the two meadows to the ass is functionally equivalent to the infinity of reality confronting the actor and the social scientist. Absolute identity and undifferentiated infinity pose the same problem to decision-making. Infinity and indeterminacy are functionally equivalent with respect to the problem of choice: until a new criterion of decision is introduced, neither can appear different from the other. Radical indeterminacy is as much a threat to the possibility of decision as radical determinacy. The ass confronting two identities would be, in this sense, no different than the abstract individual deciding how to act given the infinite possibilities of the universe. Some form of asymmetry needs to be introduced to give form to the undifferentiated. For Weber this asymmetry was performed by values, which gave structure to the indeterminate infinite, making action and decision possible as well as the sociologist's causal analysis of the consequences of action. For Luhmann, the causal schema and the ends/means schema had already introduced first-order asymmetries, rendering an indeterminate and undifferentiated real infinity into determinate infinities.

Subtly but carefully, Luhmann's functionalism picked apart the Leibnizian knot tied between decision and rationality. Functionalist comparison calls upon a technique of abstraction that allows what is different to appear as different with respect to an abstract identity. Functional abstraction, in other words, mediates the same and the different, the identical and non-identical, without resorting to dialectical acrobatics. Social systems use abstraction as a technique to manage their identity, but precisely by making identity a function of non-identity: differentiation is a process by which systems reproduce their existence through difference. An identity at one level becomes non-identical on another. Systems generate asymmetry to make possible the decisions they need to exist.

Stratified societies, modern formal organizations, and computer programs alike, for example, use hierarchy as such a form of differentiation. From the beginning, Luhmann's construction of a possibilist functionalism crystalized around the phenomenon of order represented by bureaucratic organization and its peculiar rationality of decision-making. The transcendental question that asked after the conditions of possibility of social order was revealed to be a transcendental question about the possibility of socially organized decision-making. It became a question not only of the production and exploration of infinite surreal possibilities, but of how such possibilities could be rationally organized, could be selected and discarded; how the indeterminacy of possibility could be given determinate form; or what is the same, how the infinite could be reduced to manageable proportions. One would have to uncover the surreal logic of possibility that propped up modern social order. And how better to begin than by interpreting the dreams of the bureaucrat?

7
THE SELECTIVE IMAGINATION
DARWINISM, PRAGMATISM, AND CYBERNETICS CONFRONT THE LABYRINTH

By the late nineteenth century, the quirky automata that had once been objects of fascination and wonder had lost ground to the hulking steel sublimities of the second industrial revolution. Buried beneath its triumphant positivistic materialism were those nagging concerns automata once raised about freedom and determinism, spontaneous self-organization, and the entwined natures of selfhood and life.[1] With the human body becoming less and less the spontaneous and sensuous machine described by La Mettrie, reduced instead to the passive "motor" of the factory laborer, the lively materialisms of the Enlightenment ceded ground to the sterilized matter of industrial machines.[2] Darwinism, or at least a dominant interpretation of it, helped square the circle, by making passive matter appear a sufficient condition for explaining the spontaneous organization of biological, psychological, and social unities in their striving for existence. But even with its final banishing of natural teleology, the unrelenting antinomy of voluntarism and automatism hardly dissipated. If anything, the apparent victory of automatism over voluntarism represented at best an "abstract negation," in Hegel's terms. Far from reconciling the opposition, it merely sharpened it. After all, these years produced some of the most extreme expressions of voluntarism since the nominalists. One needs only bring to mind the names of Schopenhauer and Nietzsche. But much like the materialist psychologies they abhorred, such acts of voluntaristic resistance tended to lead to more, not less fragmentary accounts of selfhood. The self that becomes unconscious and partially submerged, as in Nietzsche, James, and Freud, thereby threatened to become more autonomic than autonomous; more like "habit" or "impulse" than uncaused will.[3] The new materialistic psychologies may have tried to preserve the voluntaristic insistence on the "unified" self, but in subjecting it to the most parsimonious physiological automatism, they dispersed it even further. The fictive legal "person" of juridical discourse, the bearer of rights and duties, served as one of the few remaining anchors for holding together an idea of autonomous selfhood fraying at the seams—apart from the religious soul, of course.[4]

In the midst of these scientific and cultural transformations, another discourse quietly began to take shape, assembling an alternative semantics for tackling the antinomy's endless quandaries. These I will call the semantics of *selectivity*. Combining a dormant interpretation of Darwinism with a psychological appropriation of biological models of self-organization overshadowed by the dominant Darwinism, the concept of selection provided an alternative mechanism to account for the spontaneous organization of autonomous selfhood. In the process, it helped to redefine autonomy as an always decentered process of organizing complexity, one in which self and context, system and environment, mouse and maze, became all the harder to distinguish, even as the necessity of distinguishing them intensified. But it was also a concept of organization no longer lost in the labyrinth of voluntarism and automatism.

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[1] Jessica Riskin, *The Restless Clock: A History of the Centuries-Long Argument over What Makes Living Things Tick* (Chicago: University of Chicago Press, 2016).

[2] Anson Rabinbach, *The Human Motor: Energy, Fatigue, and the Origins of Modernity* (New York: BasicBooks, 1990); Anson Rabinbach, *The Eclipse of the Utopias of Labor*, First edition, Forms of Living (New York: Fordham University Press, 2018).

[3] On the distinction between the autonomic and autonomous, see Mireille Hildebrandt and Antoinette Rouvroy, eds., *Law, Human Agency, and Autonomic Computing: The Philosophy of Law Meets the Philosophy of Technology* (Milton Park, Abingdon, Oxon ; New York, NY: Routledge, 2011).

[4] Jan Goldstein, *Post-Revolutionary Self: Politics and Psyche in France, 1750-1850* (Cambridge: Harvard University Press, 2008).

From the late nineteenth century, this concept of selection would make its way through pragmatism and behavioral research to cybernetics and decision-theory in the 1950's. Here it would assume a form that helped to define self-organization as a kind of contextual, problems-solving intelligence, virtually indistinguishable from perception, and this, in turn, as rationality. Both, moreover, became properties not only of humans and animals, but also of machines and social systems. In the form given it by Herbert Simon and W. Ross Ashby, selectivity would offer Luhmann the basis for constructing his theory of social systems as a theory of rationality—as well as providing another vector for his subsequent development of the semantics of contingency.

The following chapter offers a brief reconstruction of this history, from Darwinism to decision theory and cybernetics, setting up the following chapter, which describes how Luhmann adapted the concept of selectivity to address legal and political problems caused by the persistence of the antinomy and its underlying metaphysics.

i. Darwinism

It is hard not hear echoes of the Darwinian notion of "natural selection" in Luhmann's appeal to "selectivity." And given the goal of this study of selectivity—to get to Luhmann's notion of contingency—it would be amiss to give short shrift to the intellectual dowry of evolutionary theory in the history of contingency. After all, Stephen Jay Gould's wildly popular account of biological evolution, *Wonderful Life*, repeatedly called upon "contingency" to help evoke the nearly miraculous powers of natural selection.[5] In a more philosophical vein, French biochemist Jacques Monod presented the wider public with the vehemently anti-teleological and atomistic account of evolution, *Chance and Necessity* in 1971, which drew upon existentialism in arguing that the contingency of natural selection alone was sufficient to account for evolution.[6] And evolutionary theory certainly plays an important role in the genesis of Luhmann's systems theory. Luhmann began to adopt evolutionary perspectives into his systems theory in the early 1970's, paralleling, if not also instigating Habermas's own interest in the topic during the same period.[7]

But the influence of evolutionary theory on the rise of the semantics of selectivity also ought not be overstated. Despite the scientific imprimatur he lent the word "selection," Darwin's influence on the version of selection discussed here was indirect. Although preserving the impersonality of the evolutionary mechanism, the tradition of "selectivity" from which Luhmann drew developed out of several important scholars' challenge to Darwinism's dominant interpretation towards the end of the nineteenth century. The appeal of selectivity lay in its capacity to preserve an element of voluntarism, despite the insistence of many Darwinists that anonymous automatism could explain away all voluntaristic phenomena in nature.

Much of the discomfort with Darwinian natural selection in the late nineteenth century stemmed not from the supposed affront to human dignity incurred by the inclusion of humans into

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[5] Stephen Jay Gould, *Wonderful Life: The Burgess Shale and the Nature of History* (W. W. Norton & Company, 1990).

[6] Jacques Monod, *Chance and Necessity: An Essay on the Natural Philosophy of Modern Biology*, 1st American ed. (New York: Knopf, 1971).

[7] Jürgen Habermas, *Communication and the Evolution of Society*, trans. Thomas McCarthy (Boston: Beacon Press, 1979); Niklas Luhmann, "Evolution und Geschichte," in *Soziologische Aufklärung 2: Aufsätze zur Theorie der Gesellschaft*, 6th ed. (Wiesbaden: VS Verlag für Sozialwissenschaften, 2009); Niklas Luhmann, "Systemtheorie, Evolutionstheorie, und Kommunikationstheorie," in *Soziologische Aufklärung 2: Aufsätze zur Theorie der Gesellschaft*, 6th ed. (Wiesbaden: VS Verlag für Sozialwissenschaften, 2009); Niklas Luhmann, "Religiöse Dogmatik Und Gesellschaftliche Evolution," in *Religion - System Und Sozialisation* (Luchterhand, 1972); Evoluton had already made an appearance in the Habermas-Luhmann debate, the subject of Chapter Eight. Klaus Eder made it the centerpiece of his response to the debate. See Klaus Eder, "Komplexität, Evolution und Geschichte," in *Theorie der Gesellschaft oder Sozialtechnologie: Beitr. z. Habermas-Luhmann-Diskussion*, ed. Franz Maciejewski, Theorie. Theorie-Diskussion. Supplement 1 (Frankfurt (am Main): Suhrkamp, 1973).

the continuum of animal life, but from the denial of life's agency it seemed to imply.[8] By reserving the activity of selection for the environment—and failing to clarify how the variety out of which traits are selected is produced in the first place—purely mechanical or "externalist" interpretations of natural selection appeared inadequate to the task of explaining the appearance of goal-directed behavior in organisms. Even today, evolutionary biologists still disagree about how to best locate the activity of selection: which objects are truly subject to selective pressures is by no means obvious: is it the gene, the organism, or the species?[9] And further, are these systems merely passive objects of selection, or do they actively participate in it? That is, does the environment select organisms' traits, or do they perform any selection themselves?[10] The overweening dominance of the externalist concept of natural selection has led some, like Stuart Kauffman, to argue that "self-organization" and natural selection represent two complementary principles, rather than seeing in the former an expression of that more capacious notion of selectivity I am pursuing here.[11]

ii. Perception and Volition: Psychology and Physiology in the Late-Nineteenth Century

As Timothy Lenoir and Michael Heidelberger have both argued, a lineage of German proto-biologists in the first half of the nineteenth century had developed a protean yet powerful and nuanced theory of biological self-organization that anticipated theories like Kauffman's.[12] Drawing on Kant's discussion of teleology in the Third Critique (and therefore, albeit indirectly, on Leibniz),[13] they identified life with organizational patterns or relations within matter, hoping thereby to steer clear of the Scylla of passive mechanism and the Charybdis of vitalism. But with the exception of a few holdouts like Gustav Fechner, the mechanistic and externalist brand of Darwinism promoted by Herbert Spencer, Ernst Haeckel, and Hermann von Helmholtz successfully marginalized this German notion of evolutionary self-organization. Similar approaches would not again find much resonance in evolutionary biology until the middle of the next century.[14]

But thanks in part to Fechner (and, paradoxically, Helmholtz) crucial aspects of this tradition found a home in psychology and physiology, where they participated in a seismic shift in cultural attitudes towards perception and cognition. In his studies on this modern transformation in visuality, Jonathan Crary argues that Fechner and Helmholtz contributed to the idea of "autonomous vision"

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[8] Peter J. Bowler, *Evolution: The History of an Idea*, 3rd ed., completely rev. and expanded (Berkeley: University of California Press, 2003).

[9] David L. Hull, *Science as a Process: An Evolutionary Account of the Social and Conceptual Development of Science* (University of Chicago Press, 2010), 400.

[10] Peter Godfrey-Smith describes this as the distinction between "externalist" and "internalist" accounts of selection. *Complexity and the Function of Mind in Nature* (Cambridge: Cambridge University Press, 1996), 115–16; Riskin folds this ambivalence into her dichotomy between vital and passive materialism. *The Restless Clock*.

[11] Stuart A. Kauffman, *At Home in the Universe: The Search for Laws of Self-Organization and Complexity* (New York: Oxford University Press, 1995).

[12] Timothy Lenoir, *The Strategy of Life: Teleology and Mechanics in Nineteenth Century German Biology* (Dordrecht: Springer Netherlands, 1983); Michael Heidelberger, "Concepts of Self-Organization in the 19th Century," in *Selforganization: Portrait of a Scientific Revolution*, ed. Wolfgang Krohn, Günter Küppers, and Helga Nowotny (Dordrecht: Springer Netherlands, 1990); Michael Heidelberger, *Nature from within: Gustav Theodor Fechner and His Psychophysical Worldview* (Pittsburgh: University of Pittsburgh Press, 2004) The two disagree, however, about the degree to which Schelling's brand of *Naturphilosophie* influenced this tradition, with Lenoir arguing that it derived directly from Kant, circumventing *Naturphilosophie*. For another argument against the importance of *Naturphilosophie*, see Peter Hanns Reill, *Vitalizing Nature in the Enlightenment* (Berkeley: University of California Press, 2005).

[13] Gregory B. Moynahan, *Ernst Cassirer and the Critical Science of Germany, 1899-1919* (London: Anthem Press, 2013).

[14] An interesting exception would be Charles Sanders Peirce, who developed Fechner's ideas about consciousness into a full-blown "evolutionary metaphysics." Heidelberger, "Concepts of Self-Organization in the 19th Century," 176.

that began to gain traction around 1860, under the heading of "attention."[15] According to Crary, attention named "the notion that our perceptual and sensory experience depends less on the nature of an external stimulus than on the composition and functioning of our sensory apparatus."[16] In emphasizing the autonomy of the perceptual apparatus, the turn to attention also drew together perception and volition, the automatic organization of experience and the will, much as when they had appeared nearly identical in Leibniz's monadology.[17] Tellingly, much of the discussion around attention oscillated within the frame of the voluntarism/automatism antinomy: "To what extent was attention," these theorists asked, "an automatic or voluntary act [?]"[18] Was selection, in other words, unconsciously and therefore *automatically* performed, or did it require deliberate action on the part of an uncaused will?[19] And was there even a coherent difference between these two alternatives? Finally, even where the specific semantics of "selection" were not deployed, the reorientation around attention consistently implied one of its most crucial features: the exclusion or reduction of

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[15] Jonathan Crary, *Suspensions of Perception: Attention, Spectacle, and Modern Culture* (Cambridge: MIT Press, 2001), 12; Heidelberger points out, however, that the disagreement between Fechner and Helmholtz, which Crary overlooks, is essential to understanding the delayed reception of theories of self-organization in epistemology. Helmholtz rejected Fechner's appeal to non-mechanistic relations in explaining consciousness and perception. For him consciousness is self-referential, but not self-organizing. Consciousness could be reduced to the mechanical processes of the brain without remainder, while its knowledge is not a "representation" of the external world, but rather a product of its own activity. Fechner, by contrast, claimed that consciousness is sui generis and self-organizing, but not purely self-referential: rejecting the Kantian "thing-in-itself," he held that consciousness could actually represent the world directly. Each physiologist presented two different types of system autonomy, both of which would come to characterize Luhmann's systems, Heidelberger, "Concepts of Self-Organization in the 19th Century," 177–78; More specifically, it characterized other influential systems theoretical approaches to cognition, like Donald T. Campbell's evolutionary epistemology, and Humberto Maturana and Francisco Varela's theory of autopoiesis. See Donald T. Campbell, "Selection Theory and the Sociology of Scientific Validity," in *Evolutionary Epistemology*, Synthese Library (Springer, Dordrecht, 1987), 139–58; Donald T. Campbell, "Levels of Organization, Downward Causation, and the Selection-Theory Approach to Evolutionary Epistemology," in *Scientific Methodology in the Study of Mind: Evolutionary Epistemology* (Hillsdale, NJ: Erlbaum, 1990); Cecilia Heyes, David L. Hull, and Professor of Philosophy David L. Hull, *Selection Theory and Social Construction: The Evolutionary Naturalistic Epistemology of Donald T. Campbell* (SUNY Press, 2001); H. R. Maturana and F. J. Varela, *Autopoiesis and Cognition: The Realization of the Living*, 1st edition (Dordrecht, Holland ; Boston: D. Reidel Publishing Company, 1980); Cary Wolfe, "In Search of Post-Humanist Theory: The Second-Order Cybernetics of Maturana and Varela," *Cultural Critique*, no. 30 (1995): 33–70.

[16] In terms strikingly reminiscent of Blumenberg's arguments about contingency and visibility in human evolution in the unpublished work from the late 1970's, *Beschreibung des Menschen*, Crary describes how, at this crucial moment "the functioning of vision became dependent on the complex and contingent physiological makeup of the observer, rendering vision faulty, unreliable, and, it was sometimes argued, arbitrary." And even more, in directly links to the collapsing of the boundary between organism and machine later consecrated in cybernetics: The rise of "autonomous vision" formed "part of a critical historical turning point in the second half of the nineteenth century at which any significant qualitative difference between life and technics begins to evaporate." Crary, *Suspensions of Perception: Attention, Spectacle, and Modern Culture*, 12.

[17] Heidelberger has also commented on Fechner's notable Leibnizianism: "By way of explanation, Fechner compares his mind-body theory to that of Leibniz. For Leibniz the physical also corresponds to the mental, without the one being evoked, effected, or caused by the other. In this sense, Fechner's 'parallelism of the physical and mental' does indeed remind us of Leibniz's preestablished harmony. But instead of viewing the body and soul as two synchronized clocks that otherwise have nothing in common, as Leibniz saw them, Fechner joins the body and soul to make one single 'clock,' 'which is aware of itself as a mentally active being, while it appears to others to be material gears' and wheel motion. What mortises the phenomena is not pre-established harmony, but the fact that their basic essence is identical.'" Heidelberger, *Nature from Within*, 103.

[18] Crary, *Suspensions of Perception: Attention, Spectacle, and Modern Culture*, 24.

[19] "There were those who posed attention as an expression of the conscious will of an autonomous subject for whom the very activity of attention, as choice, was part of that subject's self-constituting freedom." Crary, 25.

excess stimuli.[20] In short, this discourse of attention identified by Crary represents a modification, a configuration of the voluntarism/automatism antinomy specific to the late-nineteenth century, in which selectivity emerged as a primary technique for describing the self-organization of perception as a function of both automatism and volition.

iii. William James

Among the theorists of selection the most significant conduit for its cybernetic future was undoubtedly the pragmatist philosopher and psychologist William James. Influenced by both Fechner and Helmholtz,[21] James outlined a theory of mind as self-organizing, self-referential, and above all *selective*.[22] His theory aimed to recover the mind's agency and autonomy against Spencer's reductionist and purely externalist evolutionary account of mind without sacrificing Spencer's evolutionary naturalism.[23] And like so many before him, James found automata to be a productive figure with which to think about the relationship between mental life and the physical brain, autonomy, automatism and volition—publishing, for example, the provocatively titled essay "Are We Automata?" in 1879.[24]

But his strongest appeal to selectivity came just over a decade later, when James expanded his critique in *Principles of Psychology*, taking aim at what he called the "conscious automaton theory" of mind. This was the increasingly popular view among psychologists and physiologists that the consciousness of humans and animals alike is nothing but an epiphenomenal manifestation of the material, causal mechanism of the nervous system.[25] The most productive means for resisting such reduction, he argued, would be to view "consciousness" as "at times primarily *a selecting agency*."[26] Selection thus named the principle by which the mind actively "chooses" the stimuli to which it will pay attention, blurring the line between perception and cognition.[27] In other words, consciousness does not passively react to a stimulus in its environment by "automatically" converting everything encountered by the sensory apparatus into a phenomenon. Rather, consciousness actively "selects" only a snippet from the totality of physical stimuli to transform into a perception.

In a move anticipating the future development of cybernetic systems theory, James also suggested that the relationship between consciousness and the physical brain was best characterized not as an ontological split between the incommensurable substances of body and mind, but as a hierarchy of control patterned in terms of a gradient of complexity. In the course of evolution, the brain had become so complex that it began to produce excess "indeterminateness" in the signals it

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[20] "The camera obscura model of vision in the eighteenth century described an ideal relation of self-presence between observer and world. Attention as a process of selection necessarily meant that perception was an activity of exclusion, of rendering parts of a perceptual field unperceived."Crary, 24–25.

[21] Heidelberger, *Nature from Within*, 268–71; Heidelberger, "Concepts of Self-Organization in the 19th Century," 176; Stephanie L. Hawkins, "William James, Gustav Fechner, and Early Psychophysics," *Frontiers in Physiology* 2 (October 4, 2011).

[22] Although his use of the term "selection" to describe conscious attention was novel, the basic idea, James admitted, was of undeniably German provenance: "Strange to say, so patent a fact as the perpetual presence of selective attention has received hardly any notice from psychologists of the English empiricist school. The Germans have explicitly treated of it, either as a faculty or as a resultant, but in the pages of such writers as Locke, Hume, Hartley, the Mills, and Spencer the word hardly occurs, or if it does so, it is parenthetically and as if by inadvertence." William James, *The Principles of Psychology.*, vol. 1 (New York: Dover Publications, 1950), 402.

[23] Godfrey-Smith, *Complexity and the Function of Mind in Nature*, 90–94; Robert J. Richards, *The Tragic Sense of Life: Ernst Haeckel and the Struggle over Evolutionary Thought* (University of Chicago Press, 2008).

[24] William James, "Are We Automata?," *Mind* 4, no. 13 (1879): 1–22.

[25] James, *The Principles of Psychology.*, 1:128–44.

[26] James, 1:139.

[27] Thus laying out the path that would be taken by cyberneticists and others more than half a century later. See Orit Halpern, *Beautiful Data: A History of Vision and Reason since 1945* (Duke University Press, 2015).

gave to the sensory-motor system, requiring a supplementary "selective" agency to render those signals into determinate form. In brief, consciousness evolved as an irreducible entity for selectively administering the indeterminacy that brains produced in processing environmental stimuli; it formed a higher order system for "steering a nervous system grown too complex to regulate itself."[28]

iv. Mice and the Labyrinth: Edward Chase Tolman and Claude Shannon

The parallels between James's descriptions of the selectivity of perception and consciousness and the mid-twentieth century work of Herbert Simon and the cyberneticists are striking. James's reception among these scholars was not usually direct. A major link beteen James's psychological account of selectivity and these later theories of autonomy as decision-making behavior was Edward C. Tolman's research on animal behavior in the 1920's and 1930's.[29] Tolman focused less, however, on the category of decision, and, significantly for the future development of cybernetics, more on the teleological problem of purposive behavior, helping close the loop between the automatic selectivity of perception and the voluntarism of conscious behavior.

Tolman dedicated his research, also conducted predominantly at the University of California, Berkeley, to the recovery of purpose as a legitimate object of psychological inquiry, and as a necessary component of the study of what Parsons (whom he influenced and with whom he would later collaborate) would call voluntaristic (i.e. not-deterministic) behavior.[30] Unlike phenomenology or other forms of idealism, this approach did not depend on the kind of introspective intuition or metaphysical ability to peer into the abyss of other minds, which he thought the logical positivists and behaviorists had convincingly banished from the annals of valid scientific explanation. Although agreeing with the latter that purposes were not directly observable, one could still make objective claims about them. He therefore argued in *Purposive Behavior in Animals and Men* (1932)[31] that one could objectively impute purposes to consciousness in the process of explaining observable behavior, so long as all the terms involved could be defined *operationally*.[32] Purposes could thus be

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[28] "A priori analysis of both brain-action and conscious action shows us that if the latter were efficacious it would, by its selective emphasis, make amends for the indeterminateness of the former; whilst the study a posteriori of the distribution of consciousness shows it to be exactly such as we might expect in an organ added for the sake of steering a nervous system grown too complex to regulate itself." James, *The Principles of Psychology.*, 1:144.

[29] Another conduit moves from within philosophy, through the work of philosopher and systems thinker C. West Churchman, a student of Edward Singer—one of James' pupils. Trained in philosophy at the University of Pennsylvania, Churchman became involved in the study of management systems and operations research during World War II, eventually becoming a professor of Business Administration at the University of California Berkeley. In his best known work, *Introduction to Operations Research*, coauthored in 1957, Churchman described the behavior of organizations in nearly identical terms to those James used to describe the autonomy of consciousness as rooted in the selectivity of perception and learning. While appearing more like an "organism" to most, especially in light of Tolman's work, the connection to James should emphasize that this conception was perhaps more rooted in James' philosophical psychology. C. West (Charles West) Churchman, Russell Lincoln Ackoff, and E. Leonard Arnoff, *Introduction to Operations Research* (New York: Wiley, 1957); Hunter Crowther-Heyck, *Age of System: Understanding the Development of Modern Social Science* (Baltimore: Johns Hopkins University Press, 2015), 102–6.

[30] Tolman contributed, for instance, to Talcott Parsons, Edward Albert Shils, and Neil J. Smelser, eds., *Toward a General Theory of Action: Theoretical Foundations for the Social Sciences* (Transaction Publishers, 1965).

[31] Edward Chace Tolman, *Purposive Behavior in Animals and Men* (New York: The Century Co, 1932).

[32] As Crowther-Heyck explains in his biography of Simon, "operationalism" was an approach to the scientific method developed by physicist Percy Bridgman in his 1927 *The Logic of Modern Physics*, which was highly influential on both natural and social scientists working in the 1930's and 1940's, and with which Luhmann was familiar, according to the bibliography in his first Zettelkasten. Operationalism permitted scientists to make objective claims about objects not directly observable, a domain which logical positivists and behaviorists had tried to eliminate from the purview of 'proper' science. But this did not mean a lapse in dogmatic metaphysics. Although not directly observed, such scientific objects could be indirectly observed as long as they could be "defined via the operations by which one measured them."

inferred, measured and defined through a judicious application of the means-ends schema to experimental observation of an animal's responses and adaptations to environmental stimuli. These reactions he understood as the animal's "selecting" of an action from a set of possible alternatives presented by the animal's use of the schema. One artificial scenario brought this out with unparalleled clarity: the labyrinth. "The paradigmatic example of such selective behavior, for Tolman, was the behavior of the white rat in a maze."[33] Selectivity was the Ariadne's thread the rat followed to find its way. Except *this* thread the rat had spun for itself.

Claude Shannon hoped to prove it so by extending the artificiality of the labyrinth experiment to include its very subject. The electrical engineer, who in 1948 formulated the first mathematical theory of information as an employee of Bell Telephone Laboratories, built a mechanical rodent (he chose to call it a mouse), which he named, appropriately, Theseus. Presented before the 1951 meeting of the Macy Conferences, Theseus was a small wooden box on wheels outfitted with copper "whiskers" for sensing and a magnet that allowed it to be pulled by an electromagnetic motor underneath the labyrinth. A circuit of electrical relays, essentially simple binary logic gates, programmed Theseus with two algorithmic modes: a "trial and error algorithm," by which Theseus bumped off of walls until finding its goal, (the "cheese,") and a "goal algorithm," which allowed it to rerun the maze without touching any walls after having "learned" it through trial and error.[34] The circuits, in effect, "selected" a specific sequence of movements, learned through exposure to the random variation in the location of walls in the maze.

Although frequently touted as one of the first examples of mechanized Artificial Intelligence, Theseus enacted a kind of self-directed behavior to which some commentators have nonetheless steadfastly refused to grant entry to the hallowed halls of autonomous beings.[35] Why such disdain for poor Robo-Theseus? As it turns out, Theseus's quite literally path-breaking abilities could not be reduced to a capacity lodged exclusively inside the three-inch long wooden contraption that scuffled around the maze. Rather, the electric mouse's abilities were distributed between it and the maze itself. Like its predecessor in the cybernetic bestiary, Buridan's Ass, Theseus could make rational decisions only because the world it inhabited already possessed a decidable structure that selected behaviors for it. In other words, like early interpretations of natural selection, Theseus's selectivity appeared too passive and externalist, an affordance of its environment's selectivity, and not its own.

v. Bureaucrats and the Labyrinth: Herbert Simon

Herbert Simon was also quite taken with mazes—obsessed, even. They constituted, as his biographer, Hunter Crowther-Heyck points out, a persistent theme, preoccupation and symbol of the polymath's work and life.[36] He even wrote a short story about them, "Mazes without Minotaurs," which he included in his autobiography.[37] In tandem with the more famous experiments with programming a computer to play chess, Simon felt that the capacity to chart a path through a maze best exhibited the learning, decision-making and problem-solving abilities he identified as the soul of cognition. But whereas chess is fundamentally an adversarial scenario, one in which strategic decision-making behavior is a function of combat with a hostile agency, the decision-making involved in navigating a maze—at least one without a Minotaur—refers instead to the problematic

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Hunter Crowther-Heyck, *Herbert A. Simon: The Bounds of Reason in Modern America* (Baltimore: Johns Hopkins University Press, 2005), 65.

[33] Crowther-Heyck, 102.

[34] Ronald R. Kline, *The Cybernetics Moment: Or Why We Call Our Age the Information Age* (Baltimore: Johns Hopkins University Press, 2015), 50–52.

[35] Riskin, *The Restless Clock*.

[36] Crowther-Heyck, *Herbert A. Simon*, 12–15.

[37] Herbert A. Simon, *Models of My Life* (Cambridge, Mass.: MIT Press, 1996), 175–89.

relationship between system and environment.[38] A system could certainly code its environment as an "enemy,"[39] but this was by no means the norm for system/environment relations.

Perhaps it was no coincidence, however, that Simon's first forays into such problem-solving and decision-making behavior did not begin not with an analysis of those mazes run by rats mechanical or organic, but with twentieth-century modernity's labyrinth par excellence: *bureaucracy*. Trained in the field of Public Administration at the University of Chicago during the Great Depression, Simon came to believe that a more precise scientific theory of decision-making would provide the key to bridging the gap between the scientific research and practical reform of public adminstration."[40] The result was Simon's doctoral thesis, completed in 1942 and first published in 1947. Drawing on Tolman, James, and Dewey, as well as Chester Barnard, the massively influential *Administrative Behavior* took the first step towards integrating the logical, political, economic, managerial, psychological, and physiological theories of rational organization and decision-making into what would provide the basis of a formal and mathematical account of cognitive behavior. This account ultimately enabled Simon to make contributions to cognitive psychology, operations research, economics, computer logic, and artificial intelligence.

But Simon's first step was simply to define organizational and human decision-making in terms of one another. Simon had a fundamentally "*bureaucratic worldview*," according to Crowther-Heyck, because he "came to define mind and machine, organism and organization, individual and institution, all as highly specialized yet tightly integrated hierarchical systems, each locked in a continual struggle to adapt to its environment as best as it could, given its limited powers." To Simon "all the world was a system," whose "component elements were strongly interdependent."[41] Partially a consequence of this bureaucratic worldview, Simon not only defined rationality with respect to the logic of decision, but also in terms of *organization*. The rationality of a system was a function of both its organization and its decision-making behavior—and the latter two, if not exactly indistinguishable were functionally indissociable. Bureaucracy and the human mind structurally mirrored one another. But they also were also congenitally and structurally intertwined.

Above all, Simon understood rationality to be, at its root, a form of problem-solving behavior, in which the environmental constraints of a decider produced rather than inhibited the decision. Organizations do not restrict free decision as choice; they enable it.[42] Pushing back against

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[38] Norbert Wiener's early cybernetics and John von Neumann's later Cold War theories emphasized precisely such an agonistic framework. See Peter Galison, "The Ontology of the Enemy: Norbert Wiener and the Cybernetic Vision," *Critical Inquiry* 21, no. 1 (October 1, 1994): 228–66; See also Claus Pias, "In Defense of Cybernetics: A Reminiscence," trans. Frank Born, 2007, 1, https://www.leuphana.de/fileadmin/user_upload/PERSONALPAGES/_pqr/pias_claus/files/aufsaetze/2007_In_Defense_of_Cybernetics.pdf "cybernetic systems stabilize themselves through continuous defense against everything that might constitute a threat to their continuity. Cybernetic systems are constantly threatened with destabilization and constantly legitimized by defense. Hence, perturbation constitutes their right to exist, and defense appears as a positive force. Perturbation is what causes a permanent need for intervention, and defense is what permanently fulfills it. Therefore, cybernetics is to be characterized as a technical as well as a political science."

[39] I discuss Luhmann's discussion of Schmitt's decisionistic "friend/enemy" distinction in these terms in Chapter Seven.

[40] Crowther-Heyck, *Herbert A. Simon*, 96.

[41] Crowther-Heyck, 7; See also Heyck's broader survey of the concept of the "bureaucratic worldview" in *Age of System*.

[42] Not unlike Parsons's interest in the "voluntaristic" dimension of action, Simon was continuously beset by "a preoccupation with choice, free will, and purpose." Crowther-Heyck, *Herbert A. Simon*, 100. But far more than was the case for Parsons, these concerns intensively animated the heart of nearly all of Simon's work. And while Luhmann would make it a prime task of his life's work to surgically remove the ethical residues of old European thought from the conceptuality of scientific theory, which early on settled on the problem of the concept of the will and decision, Simon embraced the problem of choice under constraint as not only an administrative problem, but always as an ethical one. Like so many other social theorists, Simon was driven by the compulsion to harmonize the impersonal structural-functional view of the total social system with the ethical imperative of individual choice.

voluntaristic accounts of agency that rooted decision-making in the pure and internal spontaneity of a will that confronted the world only as an impediment to its designs, Simon understood "the organization as creating an environment in which free choice took place and had meaning." For him, "Freedom could not exist without boundaries, and choice would have no meaning if it were not integrated into a larger structure."[43]

As his theory of organizational decision evolved and became more formal and mathematical, Simon intended them to apply equally to humans, animals, machines, and social organizations. Studies and experiences of each could be tapped to derive insights into the others. Although each system presented unique features, they all shared certain formal elements that constituted them as rational systems. Of particular significance was the sudden development of digital computers. As he inquired seriously into computer science and cybernetics in the 1950's, he began to formalize and extend the reach of several of his core intuitions from his early work.

Shannon's definition of information provided the key to bridging the gap between the administrative language of decisions and the logic of computation, on the one hand, and between decisions and organization or "order," on the other. In his famous paper, "The Mathematical Theory of Communication, published in 1948, Shannon defined information as a probabilistic measure of uncertainty, which took the form of an equation formally identical to the Boltzmann-Gibbs equation for thermodynamic entropy. That is, it measures the probability that a message will contain a specific element, the letter "a," for example, instead of the other 25 possible letters of the alphabet. But unlike entropy, this probability is not a measure of ignorance of microstates but of a choice or decision,[44] in other words, a *selection*.[45] As Shannon put it in the opening page of his paper, "the actual message is one *selected from a set* of possible messages."[46] The quantity of information contained in the message is then a function of the relative improbability of its specific selection. By referring to this improbability as *uncertainty*, Shannon also drew attention to the fact that it referred not to a fixed universal quantity, but to the expectations of the communication system in which the message occurs. The quantity of information in a sender's "selection" is its "surprise" value—its improbability—relative to the uncertainty of the receiver's expectations.

Although Shannon defined information as a quantity of entropy, it could just as easily be defined in the reverse, as a measure of negentropy. Norbert Wiener's contemporaneous definition of information, for example, took this path. But neither pure entropy nor negentropy transmitted anything "relevant," since neither random gibberish nor an endlessly repeated pattern communicates much of value. Hence, practically speaking, maximum information occupies a position in between certainty and uncertainty, depending on one's frame of reference. In essence, information can be treated as either the uncertainty of a receiver before a message is sent, *or* as the amount by which the reception of this information *reduces* that uncertainty (in other words, the degree to which information creates certainty).[47] This double aspect of the selectivity of information forced a fundamental revision to ideas of order and disorder, organization and chaos, best captured by the concept of *complexity*: "whereas chaos had traditionally meant simply disorder," writes Katherine

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[43] Crowther-Heyck, 118.

[44] Norbert Wiener in particular emphasized the language of decision in his description of the concept of information: "The fundamental idea is the message… and the fundamental element of the message is the decision." Norbert Wiener, "Conferences on Feedback Mechanisms and Circular Causal Systems in Biology and the Social Sciences" (Frank Fremont-Smith Papers, Francis A. Countway Library of Medicine, Harvard University, Cambridge, Mass., 1946), 62; quoted from Hayles, *How We Became Posthuman*, 52.

[45] Katherine Hayles, *Chaos Bound: Orderly Disorder in Contemporary Literature and Science*, 1 edition (Ithaca, N.Y: Cornell University Press, 1990), 54.

[46] C. E. Shannon, "A Mathematical Theory of Communication," *The Bell System Technical Journal* 27, no. 3 (July 1948): 379.

[47] Hayles, *Chaos Bound*, 59.

Hayles, "complexity implied a mingling of symmetry with asymmetry, predictable periodicity with unpredictable variation."[48]

Information theory and the concept of complexity allowed Simon to better formulate and formalize three key concepts that had been only loosely intimated in *Administrative Behavior*, and which came to define much of Simon's legacy. These were the three interlocking ideas of "decision premises/programming," "bounded rationality"[49] and the principle of "satisficing."[50] Bounded rationality, which he also called "heuristic problem solving" in his work with Allen Newell on Artificial Intelligence,[51] quickly became identified as Simon's "trademark principle," which he treated as "basic building block in everything from public administration to economics to artificial intelligence."[52] In contrast to the mainstream of rational choice theory that grew out of game theory, identified with figures like Thomas Schelling, John von Neumann, and the RAND institute, Simon did not treat decision-making as the selection of the single preference from a set of coherent and ready-made alternatives.[53] Such a model treated intelligence as all too omniscient, whereas Simon argued that "Economics and administrative theory both need models of rational choice that provide a less God-like and more rat-like picture of the chooser."[54] What fascinated Simon most of all was how coherent alternatives become manifest in the first place, which he treated as a fundamental component of cognition. Bounded rationality thus presented a new solution to the old Leibnizian problem of the possibility of rational decision in the face of an infinite reality. Only now, especially in the context of the computer revolution, the problem was posed not by an indeterminate infinity, but by *complexity*: a quantity of possibilities sufficiently large as to pose to decision a difficulty functionally equivalent to infinity.

Chess provided the customary example. In Crowther-Heyck's words, "Simon observed that chess has something on the order of 10^{120} possible outcomes. This is an absurdly large number; one cannot possibly calculate the optimal path through the maze of decisions one must make in a chess match."[55] Playing, not to mention being good at chess, requires one to use heuristics to reduce the uncertainty evoked by complex environments. Heuristic schemas simplify problems of near-infinite complexity such that a coherent set of alternatives solutions can be made manifest. Even if the single best or optimal solution may be impossible to discern in practice, a "first best" or "satisfactory" approximation is still achievable. Simon identified this as the principle of "satisficing." Simply put, chess masters are better at chess not because they can map the entire decision-tree of possible moves, but because they "have better heuristics."[56] In his work on the "General Problem Solver" computer program, Simon thus emphasized how to program a computer to use what he called "selectivity in exploration" to "carry out complex information processes."[57]

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[48] Hayles, 51.

[49] Herbert A. Simon, *Models of Man: Social and Rational; Mathematical Essays on Rational Human Behavior in Society Setting* (New York: Wiley, 1957).

[50] H. A. Simon, "Rational Choice and the Structure of the Environment," *Psychological Review* 63, no. 2 (March 1956): 129–38.

[51] Herbert A. Simon and Allen Newell, "Heuristic Problem Solving: The Next Advance in Operations Research," *Operations Research* 6, no. 1 (February 1958): 1–10.

[52] Crowther-Heyck, *Herbert A. Simon*, 9.

[53] S. M. Amadae, *Rationalizing Capitalist Democracy: The Cold War Origins of Rational Choice Liberalism* (Chicago: University of Chicago Press, 2003); S. M. Amadae, *Prisoners of Reason: Game Theory and Neoliberal Political Economy*, Reprint edition (New York, NY: Cambridge University Press, 2016); Daniel Bessner and Nicolas Guilhot, eds., *The Decisionist Imagination: Sovereignty, Social Science and Democracy in the 20th Century* (New York: Berghahn Books, 2018).

[54] Crowther-Heyck, *Age of System*, 97. From Simon's letter to Ward Edwards, Aug. 16, 1954, HSP, Box 5, ff 203, p. 1.

[55] Crowther-Heyck, *Herbert A. Simon*, 227.

[56] Crowther-Heyck, 227.

[57] Herbert A. Simon, *The New Science of Management Decision* (New York: Harper and Brothers, 1960), 29.

In light of their irreplaceable role in decision-making, Simon tended to describe these heuristics as "decision-premises," which could be classified as either programmed or nonprogrammed.[58] The concept of the "program" offered a mathematically formalizable approach to tackling sequential, contingent, path-dependent and irreversible problems.[59] Simon thus defined the program as a "detailed prescription or strategy that governs the sequence of responses of a system to a complex task environment."[60] Much like James' description of the cognitive powers of habit, programmed decisions are "repetitive and routine." Decision premises and programs are not only important because of their cognitive function in enabling an individual to make a decision, but because they establish a communicative basis for coordinating the behaviors of multiple actors, enabling the development of complex social organizations. For Simon—and here he and Luhmann parted ways—the preeminent structure of organization is always hierarchy.[61] The problem with classical mechanistic theories of hierarchical organization, including Weber's, was that, in presupposing the "machine model" of organization, they downplayed the vital "coordination problem." Whatever one thinks of their moral and ontological status, human beings simply do not behave like "cogs" in a machine unless very specific kinds of mechanisms are already at work. The machine model of organization presumed that hierarchy spontaneously coordinates, and did not inquire into the mechanisms that made it work.[62]

Simon and March's theory of organization, by contrast, explained that decisions can only be communicated, whether by command or some other form, insofar as they reduce the uncertainty of those who receive them. A decision made by a superior "communicates" because it alters the decision premises of their subordinates, restricting the possible behaviors open to them. Decision programs, in turn, regulate and coordinate the behavior of members at a given level of an organization in the same way: they specify the model, the blueprint, according to which members perceive their environment, and preselect the set of possible responses available to them given certain conditions. They thereby enable different individuals to make similar decisions in similar situations. Programs also allow inferences to be drawn by one member and passed along to another for action without the second member having to be aware of the first's reasons for drawing that inference. Simon and March referred to this as the function of "uncertainty absorption." The location of such points of uncertainty absorption, given in the program, explains much about the structure of influence in an organization, and directly correlates with its division of labor. One must "trust" that the decision made by another was correct, because to audit their decision would create

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[58] Simon, 1.

[59] Simon believed that "only the program permitted scientists to describe contingent, sequential events in a precise, demanding language. Only the program enabled the reduction of complex adaptive behavior to a set of hierarchically organized elementary processes. Only the program allowed one to generate unpredictable complexity from determinate simplicity." Crowther-Heyck, *Herbert A. Simon*, 231–32; This also might suggest another possible departure from Simon in Luhmann's later understanding of complexity, which was always primordial and never generated by simplicity. On these two forms of complexity as a point of difference between Habermas and Luhmann, see William Rasch, "Theories of Complexity, Complexities of Theory: Habermas, Luhmann, and the Study of Social Systems," *German Studies Review* 14, no. 1 (February 1, 1991): 65–83.

[60] Simon, *The New Science of Management Decision*, 6.

[61] James G. March and Herbert A. Simon, *Organizations* (New York: Wiley, 1958). Perhaps the biggest difference between Simon and Luhmann comes to light in terms of the structural models they privileged when defining systems. Like James's description of the mind-brain relationship, but unlike Luhmann's emphasis on horizontal differentiation, Simon understood the rationality of organization almost exclusively in terms of hierarchy. He gave an analytical account of its cognitively rational achievements, and thereby made it one of the centerpieces of his theory of both cognition and organization, a key component of all human and computer cognition and bureaucratic organization. Simon even went so far as to portray "administrative science as the discipline that studies the structure of hierarchy itself."

[62] March and Simon, 34.

redundancy, and undermine the purpose of distributing tasks to different departments.[63] Since such communication channels can be programmed to minimize such redundancies, Simon argued that the very structure of the organization "is a partial specification of decision-making programs."[64]

Much as was the case for Shannon's Theseus, in Simon's account of administrative behavior it was not the isolated rat, electric mouse or human bureaucrat that formed the sole or even primary locus of decision-making prowess, but the labyrinths they navigated. The labyrinth became the map to itself—and to the wider labyrinth of the world. To be more precise, Simon considered decisions and their rationality to be a function of the system constituted by the human and the organization in tandem. In this, he broke with rational choice theory. As Orit Halpern puts it, Simon's "first objection" to the rational choice theorists, "was that 'rationality' usually assumed a separation between the organism and its environment, and thus a subject that could process information from its system without being of it, or inside it."[65] Tied into a networked web by Ariadne's thread, Theseus, the thread, the labyrinth, and the Minotaur became increasingly hard to disentangle.

vi. The Labyrinth that Solves Itself: Selectivity and W. Ross Ashby's Self-Organizing Systems

As in the controversy over natural selection, a major conundrum confronting theories of self-organizing or at least self-directing systems was how to make sense of system autonomy once systems could only be understood as systems-in-an-environment. As witnessed by the deflationary reactions to natural selection and Shannon's Theseus, emphasis on the role of the environment provoked the critical enjoinder that an irreducible moment of heteronomy remained at the heart of a project designed to provide a theory of autonomy. One route out of this conundrum, which Luhmann would soon take, was to insist that system autonomy would have to be redefined in terms of a non-causal and non-substantialist theory of self-organization, that is, a theory of self-organization in which the "existence" of the system is not simply equated with it material actuality.

Perhaps the most emphatic statement of such a theory was provided by British psychiatrist-turned-cyberneticist W. Ross Ashby. Among early cyberneticists, Ashby was distinguished in part for having concentrated on the concept of complex systems. Like that of most cyberneticists, his work focused on adaptive machines that learn through feedback gain by way of trial and error when actively exploring an environment. But in various texts, in particular his 1952 book *Introduction to Cybernetics*, he produced a unique and formal mathematical definition of adaptive systems in terms of the distinction between systems and their environment, downplaying the concepts of purpose and intention in favor of more "automatic," distributed, and impersonal forms of agency.[66]

Although Ashby's theoretical work developed in close connection to his construction of actual physical machines, in particular a homeostat system and DAMS (dispersive and multistable system), his underlying ontology was hardly that of a mechanistic materialist. Right from the opening pages of *Introduction to Cybernetics*, Luhmann would have found Ashby's definition of cybernetics immediately compatible with his anti-substantialist functionalism: though a "theory of machines," Ashby wrote, cybernetics dealt not primarily with "levers and cogs," that is, "things," but rather "*ways of behaving*. It does not ask 'what *is* this thing?' but '*what does it do?*'"[67] Ashby thus found that for

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[63] March and Simon, 164–69.
[64] Simon, *The New Science of Management Decision*, 10.
[65] Halpern, *Beautiful Data*, 176.
[66] "[W]hile Rosenblueth, Wiener, and Bigelow (1943) thought of servomechanisms as models for purposive action in animals and machines, Ashby's examples of homeostatic mechanisms operated below the level of conscious purpose. The brain adumbrated in Ashby's paper was thus unequivocally a performative and precognitive one." Andrew Pickering, *The Cybernetic Brain: Sketches of Another Future* (Chicago ; London: University of Chicago Press, 2010), 99.
[67] William Ross Ashby, *An Introduction to Cybernetics* (J. Wiley, 1956), 1.

cybernetics, "The materiality is irrelevant."[68] Or as Andrew Pickering puts it, "Ashby's world, one can say, was built from such intrinsically dynamic elements, in contrast to the modern ontology of objects carrying unvarying properties (electrons, quarks)."[69]

In particular, in presenting an alternative ontology, *Introduction to Cybernetics* repeatedly emphasized the priority of possibility over actuality. Just as the principles of geometry do not derive from "terrestrial space," but rather encompass them, Ashby reasoned, cybernetics' object could not be limited to actual machines. And so following the example of Alan Turing's famous "a-machine"—essentially a mathematical thought-experiment, an abstract machine designed to simulate the basic properties of any form of algorithmic computation—Ashby argued that cybernetics concerns "the domain of 'all possible machines.'"[70] On studying these machines, moreover, cybernetics does not ponder what this machine does in the here and now, but rather asks "'what are *all* the possible behaviors that it can produce?'"[71] Ashby thus defined machine systems not as immanent to material things, but to the "product space of possibilities" that constituted the world. "Thus the presence of 'organization' between variables is equivalent to the existence of a constraint in the product-space of the possibilities. I stress this point because while, in the past, biologists have tended to think of organization as something extra, something added to the elementary variables, the modern theory, based on the logic of communication, regards organization as a restriction or constraint."[72] Ashby's term to describe the mechanism of such constraint was *selection*.

With selection, Ashby rendered the operative organizational structure of a system equivalent to its rationality. Like Simon and Tolman, Ashby understood rationality as a form of selective intelligence; and intelligence, in turn, as a form of problem-solving behavior. Selectivity constituted its primary mechanism: "'Problem solving' is largely, perhaps entirely, a matter of appropriate selection… It is, in fact, difficult to think of a problem, either playful or serious, that does not ultimately require an appropriate selection as necessary and sufficient for its solution"[73] The appropriateness of a selection, moreover, is confirmed by its ability to promote the system's continued existence. Problem solving thus becomes a matter of adaptation to a complex environment that poses existential challenges to the system. In other words, selective mechanisms are themselves subject to a quasi-Darwinian process of variation and selection:[74] "Adaptation in the homeostat amounted to the selection of an appropriate state by a process of trial and error within a combinatoric space of possibilities. This notion of selection appears over and over again in Ashby's writings…"[75] And so just like Leibniz, Ashby understood the "actuality" of systems as a selective contraction of a combinatoric space of possibility. Only for Ashby the possible is not a product of a divine imagination that transcends the actual world, but rather, following Shannon's theory of

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[68] Ashby, 1.
[69] Pickering, *The Cybernetic Brain*, 116.
[70] Ashby, *An Introduction to Cybernetics*, 2.
[71] Ashby, 3.
[72] W. Ross Ashby, "Principles of the Self-Organizing System," in *Facets of Systems Science*, International Federation for Systems Research International Series on Systems Science and Engineering (Springer, Boston, MA, 1991), 522, https://doi.org/10.1007/978-1-4899-0718-9_38.
[73] Ashby, *An Introduction to Cybernetics*, 272.
[74] "From this point of view the use of chance is in no way a 'denial of rationality.' On the contrary, chance is the intelligent man's method of selection when he knows that the quantity of information available to him as selector is less than the quantity of selection demanded from him." W. Ross Ashby, "Chance Favors the Mind Prepared," in *Mechanisms of Intelligence: Ashby's Writings on Cybernetics*, ed. Roger Conant (Seaside, Calif.: Intersystems Publications, 1981), 177.
[75] Pickering, *The Cybernetic Brain*, 110. But then Pickering continues, arguing that "at least from an ontological point of view, there is something wrong with" Ashby's use of selection. "It leaves no room for creativity, the appearance of genuine novelty in the world…" 110.

information, it "represents the uncertainty of the observer" who is immanent to the world.[76]

It might be tempting to read Ashby's equation of possibility with uncertainty as a mere restatement of classical modernist epistemology. As an expression of uncertainty, such possibility is constituted as a mere internal "projection" of a subjective observer onto a determinate yet always unreachable external world; it would thus be less real than the thing-in-itself that is always just out of the observer's reach. But that would severely underestimate Ashby's estimation of the pervasiveness and ontological meaning of observation in a world of systems.

To describe Ashby's ontology of observing systems it is worth first pausing for a moment to explain how he defined self-organizing or, his language, "ultrastable" systems. A system, for Ashby, is always to be understood in terms of its distinction from its environment, a distinction that he further elaborated in terms of the logic of possibility and selection. An ultrastable system is one that can maintain equilibrium in the face of an environment that not only fluctuates unpredictably within given parameters, but can also establish new equilibria even when the environment changes in a completely unprecedented manner. But for Ashby this didn't mean some pre-specified equilibrium, some determinate goal-state to which the system would always return, as when a stretched rubber band returns to its original form when released. Rather, after experiencing some exogenous shock that made its prior equilibrium unsustainable, a truly ultrastable system would be able to alter its structure in order to find a new equilibrium. The configuration of the new equilibrium, furthermore, would not be predictable before it had been attained. It would behave non-deterministically.

The key to ultrastability lay in the selective relationship between the complexity—or in Ashby's terminology, the "variety"—of a system, and that of its environment. For Ashby, variety described the number of possible states a system or its environment could respectively assume. Any system would qualify as ultrastable so long as it has what Ashby called "requisite variety," that is, when it is able to match every possible change in its environment with a corresponding change in its own state. According to the "law of requisite variety," sometimes called "Ashby's Law," if a system's environment can present six different states, then in order to adapt to it the system needs to be able to reconfigure itself into at least six corresponding forms.[77] A system with greater variety can be said to have greater "selectivity." Selectivity not only operates to reduce variety; it *is* variety.[78] In its most concise formulation, Ashby's Law thus read: "only variety can destroy variety."[79]

Obviously, most systems are far more complex than this. More troubling, at first glance, however, was Ashby's assumption that systems ever exist in such simple environments. If a system is defined by its difference from a dynamic environment to which it must constantly adapt, and this environment potentially includes everything the system is not, how could it ever hope to achieve requisite variety? Like the concept of information on which it is based, requisite variety always refers to a specific context. A system's environment is not the entire universe, but some local set of conditions. And however complex they may be, environments, like information are never purely

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[76] "Whence comes this product space? Its chief peculiarity is that it contains more than actually exists in the real physical world, for it is the latter that gives us the actual, constrained subset. The real world gives the subset of what is; the product space represents the uncertainty of the observer." Ashby, "Principles of the Self-Organizing System," 523.

[77] Ashby, *An Introduction to Cybernetics*; W. Ross Ashby, "Principles of the Self-Organizing Dynamic System," *The Journal of General Psychology* 37, no. 2 (October 1, 1947): 125–28; Ashby, "Chance Favors the Mind Prepared"; Pickering, *The Cybernetic Brain*, 91–170.

[78] As opposed to "selection" and its other modifications, the term "selectivity," coined in the early 20th century in radio engineering, only seems to have entered cybernetic discourse through Ashby. But even here it appeared only relatively late, first appearing, as far as I can tell, in 1956 in W. Ross Ashby, "Design for an Intelligence Amplifier," in *Mechanisms of Intelligence: Ashby's Writings on Cybernetics*, ed. Roger Conant (Seaside, Calif.: Intersystems Publications, 1981), 264; It seems likely that Luhmann appropriated "selectivity" either from this text or from Stafford Beer's use of it to describe organizations in *Cybernetics and Management*, Management Science Series (London: English Universities Press, 1959).

[79] Ashby, *An Introduction to Cybernetics*, 207.

chaotic, that is, completely random and unpredictable in the possible states they assume. They are composed out of other systems, each of which mutually adapt to one another.[80]

Ashby aimed to provide demonstrations of this idea by building relatively simple ultrastable mechanical systems. But even these relatively simple systems, when viewed in terms of the possible number of states they could embody, turned out to be staggeringly complex. In Ashby's homeostat setup, composed of four homeostat "units," each individual unit was connected to the others in a circuit by electrical inputs and outputs. In between, each could "select" one of twenty-five different random electrical resistance values, effectively changing its output, and therefore the input of a neighboring unit. Beyond a certain threshold, each unit would become unstable, and would randomly change its resistance value until equilibrium was restored. "Started off in any configuration, the homeostat would randomly reorganize itself to find a condition of dynamic equilibrium with its environment, without any external intervention."[81] And the number of possible states through which each unit might pass was staggering, and completely unpredictable.

So then what of truly large systems? Perhaps a consequence of his study of the neurophysiology of the human brain, Ashby was noticeably more fascinated by the practical and conceptual problems posed by "large systems" than some of his contemporaries. Large systems struck many of them as simply involving too many moving parts, too many variables and relations to adequately specify and formalize. Designing simpler machines took immediate precedence. Far from an obstacle, however, the perplexing features of large systems struck Ashby as precisely the occasion for better specifying the unique strengths of the cybernetic approach—an insight that would prove foundational to the future work of a younger generation of researchers in second-order cybernetics (Stafford Beer) and theoretical biology (Stuart Kauffman).[82] "Largeness," Ashby argued, is just another expression for complexity. And the complexity of a system is always relative to its *observation* by another system. "If our dynamic system were a native family of five persons," Ashby asked, "would we regard it as made of five parts, and therefore simple, or as of 10^{25} atoms, and therefore very complex?" The decision between the two measures of complexity depends, in other words, on the specific relationship between the observing and the observed systems. Ashby thus defined the largeness of a system in terms of "the number of *distinctions* made" by the observing system.[83] In Ashby's words, an observer "says the system is 'very large' if in some way it beats *him* by its richness and complexity," that is, if its variety overwhelms his variety.[84] The observer has to treat the system incompletely and therefore statistically, according to a rule—in other words, *selectively*.[85]

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[80] "The fundamental discovery of the last 20 years is that all such selection processes are subject to the laws of information theory. The first [law] is that appropriate selection can be based only on information in the requisite quantity, and the second is that information is measurable and finite. It follows that in any real life situation the amount of appropriate selection that can be achieved is also finite. At any given moment, a would-be selection will have available a certain quantity of information and no more. With this quantity he can execute a corresponding quantity of rational, appropriate, meaningful selection. When the information is exhausted, no further rational grounds exist." Ashby, "Chance Favors the Mind Prepared," 177.

[81] Pickering, *The Cybernetic Brain*, 105.

[82] Pickering, 161–66, 215–308; Stafford Beer, "Below the Twilight Arch--A Mythology of Systems," in *Systems: Research and Design: Proceedings of the First Systems Symposium at Case Institute of Technology*, ed. Donald P. Eckman (New York: John Wiley & Sons, 1961); Kauffman, *At Home in the Universe.*

[83] Ashby, *An Introduction to Cybernetics*, 61.

[84] Ashby, 62.

[85] Ashby's account of "habituation" provides a good example of this selectivity. In what essentially amounted to a formalized account of the process of learning James and Simon had described, Ashby described habituation—and "dehabituation"—in terms of ultrastability. Habit, again, is an impersonal, non-representational, and performative form of selectivity. But it is nonetheless still cognitive in that it helps a system *learn* to ignore parts of its environment, effectively "reducing" its complexity for the system. The system learns that there are possible states of the environment to which it need not react. But it also needs to be able to "undo" this learning given sufficient exposure to the ignored

In Ashby's world the system/environment distinction reigned supreme. But it was also a constitutively variable distinction, dependent on the selectivity of the observer of the system. Truly "self-organizing" systems thus had to be "self-observing." They had to draw their boundaries and be able to observe the difference thereby made. But this would just create yet another environment, this time *inside* the system. Truly self-organizing systems were by definition unimaginably complex because they repeat the difference between system and environment internally. Unlike artificial machines, such systems were therefore too complex to design from the ground up, according to what Ashby called the "blue-print" method. Truly ultrastable systems had to be self-organizing, not only self-regulating or "self-connecting."[86] That is, it is not only the case that ultrastable systems regulate their behavior in real time through a quasi-Darwinian process of trial and error, variation and selection; their very structures could only ever have originated in a co-evolutionary process of mutual, selective adaptation.[87] Ashby thus seemed to posit an unbroken continuum between the mechanisms by which systems regulate themselves and the mechanisms by which they evolve. In other words, the very *being* of a system—and not only its ability to persist—is always a function of its self-selecting relationship to a complex environment.

Should one ever hope to create a truly ultrastable system, an artificial intelligence on the order of the human brain, it could not be designed step by step, by connecting simple principles or rules into a larger system: it would have to be "evolved," exposed to an environment and allowed to self-select through innumerable encounters with a complex yet structured environment. This is precisely how contemporary paradigms of AI, those predicated on neural networks and machine learning, actually work. Complex algorithms are exposed to vast sets of training data, from which they recursively alter their own structures, learning, in effect, how to learn better.

As fate would have it, Ashby's approach to machine intelligence would languish for decades, as the far more practical yet limited digital "logic machines," the stored-program devices we call computers, became the basis of failed attempts at constructing artificial intelligence as well as the key components in the far more consequential social transformations soon to be identified with the "post-industrial" or "information society." A new wave of automation was already underway, and if its reality didn't live up to the exaggerated cybernetic-science fiction promises of truly autonomous robots, it nevertheless occasioned a new set of questions about the meaning of autonomy and reason in a world increasingly populated by hybrid human-machine systems—that is, by cyborgs.

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stimulus. It must be able to ignore, while preserving the possibility of paying attention again. Pickering, *The Cybernetic Brain*, 128–29.

[86] Ashby, "Principles of the Self-Organizing System," 529.

[87] Pickering, *The Cybernetic Brain*, 127.

8
Do Bureaucrats Dream of Electric Mice?
The Selective Affinity of Law, Automation, and Administration, 1966

» 1. Picking up the Thread «

Few readers of Hannah Arendt's 1958 *The Human Condition* will fail to recall its celebrated prologue, which opened with a dazzling reflection on the world historical meaning of space travel after Sputnik. Fewer, however, recall that the very same prologue attributed equal significance to the advent of automation, even though it would come play a far more conspicuous role in book's following argument. Sputnik was an afterthought, having occurred just before the final draft was completed. Automation, by contrast, had undoubtedly been one of the central provocations behind Arendt's meditations on the situation of modern humanity. But despite the roughly equal significance Arendt accorded these two paradigms of modern technology, realizations of "dreams that were neither wild nor idle," her sentiments towards each could not have been more opposed.[1] What space travel revealed to be the basis of the human condition was precisely that which automation threatened to destroy: the "world." This was counterintuitive. After all, the very event which Arendt celebrated as "second in importance to no other," the orbit of the Soviet satellite "Sputnik," provoked fear, at least in the United States, because it reinforced the already looming specter of nuclear apocalypse. For the event called Sputnik would not have occurred but for that sudden and massive profusion of Cold War military research and development, which designed its rockets to deliver not another star in the earth's night sky as a payload, but, in the form of a nuclear explosion, a star in miniature upon the earth's surface. By contrast, in providing relief from the drudgery of labor, automation seemed poised finally to fulfill the utopian dreams of countless generations. Yet under the historical conditions that gave rise to automation, such dreams could only be consummated as a nightmare.

Although the public responded with joy at the possibility of "escaping the earth," for Arendt the epochal significance of space travel lay in its having made palpable the fact that the "earth is the quintessence of the human condition," that humans are "earth bound creatures." But most important here was not the natural, living earth, but the "human artifice of the world" which "separates human existence from all mere animal environment," from "life itself." Humans, nevertheless, inextricably remain part of life.[2] The human condition, in Arendt's reading, is thus defined by a kind of ontological schizophrenia. As *life*, humanity is of the earth; as *humanity*, it builds for itself a world. Although life may be inescapable, it is not everything. The artificial world of human existence is a product of creative "work," action, speech and thought; a manifestation of willed purposes given historical durability in monuments and narratives. But from its very beginning, modernity had forsaken the artificial world precisely in endeavoring to dominate nature, to escape the earth. As if by dialectical fiat, the most extreme attempts to escape life only reinforced its hold. For modernity had subordinated work to the imperatives of labor, and unlike work, labor belonged to the natural cycle of life, as an element in its aimless and endless self-reproduction. Thus modern existence, defined by the nihilism of "world alienation," had been reduced to nothing more than the meaningless cycle of production and consumption in a "society of laborers." The most artificial

[1] Hannah Arendt, *The Human Condition*, 2nd ed (Chicago: University of Chicago Press, 1998), 2.
[2] Arendt, 2.

form of life the world had ever seen was also one in which nature ruled absolutely. If technological development thereby created a "second nature," then automation embodied its apotheosis. For it was not "the much deplored, mechanization and artificialization of natural life" that most troubled Arendt, but its opposite: as the antithesis of voluntarism, automatism belonged to the bad infinity, the blind churning of nature, repeating endlessly and compulsively without purpose, and not to the human world, the realm of freedom.[3] And so as "the culminating point of the modern development,"[4] automation threatened to intensify the *natural* "life process" of human reproduction, which, like entropy, could only erode the "durability" of the world which humans freely made through action, speech, and thought.[5] About the only thing automation had going for it, as far as Arendt was concerned, was that it had "the advantage of demonstrating the absurdities of all 'humanisms of labor.'"[6]

Cybernetics may have been conspicuously absent from Arendt's text, alluded to only in passing, but the prospect of creating machines that could think and speak seemed only to confirm her impression that these human qualities had already ceased to matter. "Politics," that most human of human endeavors, rooted in speech and conscious will, did not have to wait for its literal automation to be evacuated of all meaning. The grand automatism that was the society of laborers had all but rendered it a fait accompli of modern technological nihilism.

Such a literal process of automating the realm once occupied by politics was, however, already underway. And Luhmann thought this to be the more "revolutionary" event. "The introduction of automatic data processing into the public administration has begun," proclaimed the first words of his *Law and Automation in the Public Administration*,[7] written eight years after Arendt's *Human Condition*. Luhmann hardly entertained any fantasies about the utopian implications of this form of automation. But he, like Arendt, nevertheless insisted that automation represented something truly "revolutionary," and precisely insofar as it consummated a much older process, one nearly coterminous with modernity itself. And so, again not unlike Arendt, he too believed that the significance of automation lay not in its artificiality, but in its world: "The question is not whether a machine-type construction of a specific social system is an affront to the greatness of humanity," but rather, "whether such a construction can be viable [*lebensfähig*] in a highly complex social world."[8]

There the similarities ended. For Luhmann it was an imperative of the age of complexity to treat human beings more, not less like mice or ants, or rather, to treat humans, animals, and automata along a single continuum. The major obstacle confronting contemporary politics was not a misplaced humanism, but humanism itself. As an expression of what Luhmann called the "ethical traditional of thought," companion to the much-derided "ontological metaphysics," contemporary political humanisms such as Arendt's relied on a model of subjective reason and action that remained ensnared in the antinomy of voluntarism and automatism.

The question of whether legal decisions could and should be automated thus presented Luhmann with an opportunity to rethink the very meaning of the concept of rationality beyond the bounds of ethics. As he posed the question in *Law and Automation*: "Are there different types of

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[3] "If we see these processes against the background of human purposes, which have a willed beginning and a definite end, they assume the character of automatism. We call automatic all courses of movement which are self-moving and therefore outside the range of wilful and purposeful interference." Arendt, 151.

[4] Arendt, 167.

[5] Arendt, 132. And further, "The question therefore is not so much whether we are the masters or the slaves of our machines, but whether machines still serve the world and its things, or if, on the contrary, they and the automatic motion of their processes have begun to rule and even destroy world and things." 151.

[6] Arendt, 149.

[7] Niklas Luhmann, *Recht und Automation in der öffentlichen Verwaltung.* (Berlin: Duncker & Humblot, 1966), 9.

[8] Luhmann, 37.

rationality, that of the machine and that of the jurist? Do both have the same function in an administrative system, so that, apart from economic considerations, they can in principle be substituted for one another? Or are their functions, their contributions to decision different, and if so: are they contradictory […] or complementary?"[9] Unfortunately, he concluded, the discussion so far had completely failed to frame the question in such terms because of its devotion to an outmoded metaphysics. The advent of automation was thus revolutionary because it forced one to recognize in thought something that had long since occurred in practice: that exposure to the extreme complexity of the world required new forms of organization, new forms of rationality. *Law and Automation* thus raised the promise, redeemed two years later in *The Concept of Purpose and System Rationality*, to sketch the outlines of a universal theory of rationality from which every trace of the antinomy between voluntarism and automatism had been surgically excised.[10] Thus far only cybernetics had begun properly to appreciate this fact, by reframing the problem of organization and rationality as a problem of complexity. In short, cybernetic systems theory had spun the thread that would lead modern thought out of the labyrinth of voluntarism and automatism and into the light of a new universal rationality. And this thread could be found already at work in history, a latent affinity stitching together the logics of positive law and automation: the selective reduction of complexity.

» 2. Administrative Behavior in the Age of Automation «

i. Computers and the Rechtsstaat

What might it mean, *Law and Administration* asked, for an institution tasked with producing legally binding decisions for the rest of society to incorporate "electronic brains" into its procedures? By posing this question in 1966, Luhmann left behind the debates over the fate of *Rechtsstaat* in the "industrial society." For this question probed the emerging features of what would shortly earn the titles of the "*post*-industrial" or "information society."[11] He was not the first. Concerned jurists and reformers in most industrialized nations had begun tackling the problem of administrative automation even before the start of the 1960's. Taken aback by the technological euphoria of those seduced by the revolutionary promises of cybernetics, and frightened by the thought of handing over the legal fate of human beings to non-humans, they engaged in a spirited debate over what role, if any, computers could—or ought to—play in legally consequential administrative decision-making.

The jurists' opponents consisted mostly of engineers, entrepreneurs, corporate executives, and economists. These advocates for automation usually emphasized automation's economic advantages, aiming to optimize efficiency and eliminate overhead. But given the staggering cost of computers at the time, any promises of increased efficiency could only be redeemed were careful attention paid to their comparative advantage over extant bureaucratic systems composed of humans, paper, typewriters, and filing cabinets. It was thus fortunate, for the organizational scientist at least, that computers remained so expensive in the 1960's. It presented an opportunity—if not also an imperative—to reconsider the nature of organizational rationality in terms commensurable with the unique affordances of digital computers.[12]

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[9] Luhmann, 13.

[10] Niklas Luhmann, *Zweckbegriff und Systemrationalität: über die Funktion von Zwecken in sozialen Systemen* (Frankfurt (Main): Suhrkamp, 1973).

[11] Daniel Bell, *The Coming of Post-Industrial Society: A Venture in Social Forecasting* (New York: Basic Books, 1973); James R Beniger, *The Control Revolution: Technological and Economic Origins of the Information Society* (Cambridge, Mass.: Harvard University Press, 1986); Ronald R. Kline, *The Cybernetics Moment: Or Why We Call Our Age the Information Age* (Baltimore: Johns Hopkins University Press, 2015).

[12] Luhmann, *Recht und Automation*, 9.

Among the most decisive effects on bureaucratic organization of the computer revolution in its first decades was that it compelled reformers to break down taken-for-granted bureaucratic tasks into discrete steps that were compatible with the inputs and outputs of computers.[13] In other words, even before the actual implementation of automated computer systems, their mere possibility encouraged a certain kind of rationalization: organizational scientists and reformers began to follow Herbert Simon's lead by explicitly recoding bureaucratic procedures as *algorithms*. The construction and implementation of these automated machines, issuing in what appeared to many as a "second industrial revolution," thus developed hand-in-hand with the new sciences of industrial management, of which Simon became an important figurehead.

The task became more complicated, however, as soon as the specific function of those bureaucracies known as public administrations entered the picture. Unlike industrial organizations, public administrations not only follow their own internal procedural rules (that branch of public law known as administrative law), but also create, apply, and specify rules that non-members are expected to follow. That is, public administrations make binding decisions about *laws* that are of universal relevance for the rest of society. The language of law, too, would have to be reconciled with that of computers.

The first hurdle in clarifying the prospects of automation in the public administration was thus conceptual incommensurability. Not only did the prospect of computers compel bureaucratic reforms, but in challenging the "usual forms of organization and rationalization," Luhmann claimed, it had also begun to undermine the older "conceptual models" of administrative science, which were rooted in a theory of "individual action oriented by the ends/means schema."[14] In other words, automation forced social scientists to revisit their dominant models of organizational rationality. How convenient, then, that Luhmann had just spent the previous six years doing just that! Required was a theory sufficiently capacious and abstract to provide a common denominator to mediate between the seemingly independent languages of law, administration, and automation; in other words, a "metalanguage" that could serve as a common point of reference for each discipline.[15] In the "controversy between jurists and the automators," between the "conceptions underlying legal science and automation," such a common denominator, Luhmann wagered, could be found in the secret affinity between the concepts of "system" and "decision."[16]

ii. The Discussion of Automation in the Early Federal Republic

Although the sociotechnical imaginary that accompanied and animated this new wave of automation had a history stretching back to the dawn of modernity, the term "automation" is actually a neologism of the 1950's, appearing in English for the first time no earlier than 1952 in John Diebold's *Automation: The Advent of the Automatic Factory*, before it rapidly spread through most

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[13] Burkhard Dietz, Michael Fessner, and Helmut Maier, *Technische Intelligenz und "Kulturfaktor Technik": Kulturvorstellungen von Technikern und Ingenieuren zwischen Kaiserreich und früher Bundesrepublik Deutschland* (Münster; New York: Waxmann, 1996); Anna-Bettina Kaiser, *Die Kommunikation der Verwaltung: Diskurse zu den Kommunikationsbeziehungen zwischen staatlicher Verwaltung und Privaten in der Verwaltungsrechtswissenschaft der Bundesrepublik Deutschland* (Baden-Baden: Nomos, 2009); Anna-Bettina Kaiser, "Intelligente Verwaltungsmaschine-intelligente Maschinen in der Verwaltung: Die Diskussion über Verwaltungsautomaten in den 1950er und 1960er Jahren," in *Eine intelligente Maschine? Handlungsorientierungen moderner Verwaltung (19./20. Jh.) [für Erk Volkmar Heyen zum 65. Geburtstag]*, ed. Erk Volkmar Heyen, Peter Collin, and Klaus-Gert Lutterbeck, 1. Aufl, Band 12 (Baden-Baden: Nomos, 2009).

[14] Luhmann, *Recht und Automation*, 9.

[15] "The thesis of the complementarity of the juristic and the cybernetic-communications theoretic logic of decision on the plane of automation requires one to search for a theoretical basis upon which this complementarity can be grounded, but which is not itself committed to a particular logic of decision." Luhmann, 12.

[16] Luhmann, 21.

European languages by the middle of the decade.[17] Unlike most academic neologisms, especially those emerging from such dry disciplines as management science, the jargon of automation rapidly diffused—one is almost tempted to say *automatically*—through a public imagination already enchanted by the science fiction-meets-reality chimera of cybernetics.[18] Newspaper and magazine articles attest to the visibility and intensity of such themes in West Germany beginning around 1955. Judging by the ubiquity of such ominous titles as "The Robots Are Coming," "The Revolution of Robots," "Does Automation Threaten Freedom?" and "Who's Afraid of Robots?," the fledgling Republic was beset by a palpable anxiety over the specter of automation.[19] Such sentiments were usually expressions of generalized fear of the "loss of *control*" before the proliferation of what Jacques Ellul famously called "autonomous technology."[20] One had only to turn to the self-proclaimed founder of cybernetics, after all, to find these fears confirmed: references to Goethe's story of the "Sorcerer's Apprentice" and the Jewish folklore of the Golem abound in Norbert Wiener's public writings, posed as cautionary tales warning of the dangers of technology run amok.[21]

Of course, anxiety was far from the only, or even dominant public response. In both West Germany and the United States, generalized unease was nearly matched by a pronounced sense of "euphoria" among reformers intoxicated by the utopian promises of automation. For these technophilic advocates, the "second industrial revolution" accomplished by these new machines even augured a new age of "humanization," when the masses would come to find relief from the drudgery of labor.[22] Socialists of every stripe were no less intrigued by automation than their liberal

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[17] John Diebold, *Automation: The Advent of the Automatic Factory* (Van Nostrand, 1952); Published in German four years later: John Diebold, *Die Automatische Fabrik: ihre industriellen und sozialen probleme* (Frankfurt/M.: Nest Verlag, 1956).

[18] Langdon Winner, *Autonomous Technology: Technics-out-of-Control as a Theme in Political Thought* (Cambridge, Mass.: MIT Press, 1978).

[19] "Die Revolution der Roboter," *Der Spiegel*, July 27, 1955, 31 edition; E. Robert Singer, "Angst vor der „Automation"," *Die Zeit*, November 24, 1955, http://www.zeit.de/1955/47/angst-vor-der-automation; Pollock Marchionini Walthzer, Weber Er, *Revolution der Roboter* (Isar Verl., 1956); "Die Roboter kommen," *Die Zeit*, May 10, 1956, http://www.zeit.de/1956/19/die-roboter-kommen; "Rationeller rechnen, planen und entscheiden," *Die Zeit*, December 27, 1956, http://www.zeit.de/1956/52/rationeller-rechnen-planen-und-entscheiden; "Im Brennpunkt des Gesprächs;: Revolution durch Roboter?," *Die Zeit*, July 19, 1956, http://www.zeit.de/1956/29/revolution-durch-roboter; "Elektrowirtschaft Hilft Automatisieren," *Die Zeit*, May 17, 1956, http://www.zeit.de/1956/20/elektrowirtschaft-hilft-automatisieren; "Tobias Runkel:: Die Regierungsmaschine," *Die Zeit*, September 20, 1956, http://www.zeit.de/1956/38/die-regierungsmaschine/komplettansicht; "Menschenleere Fabriken," *Die Zeit*, February 16, 1956, http://www.zeit.de/1956/07/menschenleere-fabriken; "Die Automation Marschiert," *Die Zeit*, April 25, 1957, http://www.zeit.de/1957/17/die-automation-marschiert; "Das Ende des Proletariats," *Die Zeit*, August 14, 1958, http://www.zeit.de/1958/33/das-ende-des-proletariats/komplettansicht; "Bedroht Die Automation Die Freiheit?," *Die Zeit*, June 23, 1961, sec. Gesellschaft, http://www.zeit.de/1961/26/bedroht-die-automation-die-freiheit/komplettansicht; "Automation zwischen Furcht und Hoffnung," *Die Zeit*, October 20, 1961, sec. Wirtschaft, http://www.zeit.de/1961/43/automation-zwischen-furcht-und-hoffnung/komplettansicht; "Einzug der Roboter," *Der Spiegel*, April 1, 1964, 14 edition; "Leben mit der Automation," *Die Zeit*, March 19, 1965, sec. Wirtschaft, http://www.zeit.de/1965/12/leben-mit-der-automation; "Wer Hat Angst vor Robotern?," *Der Spiegel*, August 29, 1966, 36 edition.

[20] Jacques Ellul, *The Technological Society* (Knopf, 1964).

[21] Norbert Wiener, *Cybernetics; or, Control and Communication in the Animal and the Machine.* (New York: M.I.T. Press, 1961); Norbert Wiener, "Some Moral and Technical Consequences of Automation," *Science* 131, no. 3410 (May 6, 1960): 1355–58; Norbert Wiener, *God and Golem, Inc: A Comment on Certain Points Where Cybernetics Impinges on Religion* (MIT Press, 1964).

[22] Annette Schuhmann, "Der Traum vom perfekten Unternehmen. Die Computerisierung der Arbeitswelt in der Bundesrepublik Deutschland (1950er- bis 1980er-Jahre)," *Zeithistorische Forschungen* 9 (2012): 233; David F. Noble, *Forces of Production: A Social History of Industrial Automation* (New Brunswick, N.J: Transaction Publishers, 2011); J. Jesse Ramírez, "Marcuse Among the Technocrats: America, Automation, and Postcapitalist Utopias, 1900-1941," *Amerikastudien / American Studies* 57, no. 1 (2012): 31–50; Wilhelm Bittorf, *Automation - Die Zweite Industrielle Revolution* (Leske, Darmstadt, 1959, 2. Aufl., 320 S., Hardcover, n.d.).

capitalist counterparts.[23] Already in 1891, for example, Oscar Wilde imagined the creative potential of the human soul that could be unlocked under a fully automated socialism.[24] And Richard Stites, in his study of the powerful waves of technocratic utopian "machinism" in the early Soviet Union, catalogued revolutionary poet Alexei Gastev's calls for the mechanization of men and the creation of industrial robots, along with his dreams for the creation of an entirely automated global system, replete with decision-making computers.[25] Later, the 1956 slogan for the German Democratic Republic's second Five Year Plan was "modernization, mechanization, and automation."[26]

More sober Marxisant analyses were also on offer. *Automation: A Study of Its Economic and Social Consequences*, published by the eminent Frankfurt School political economist Frederick Pollock in 1956, argued that the rise of automated production would have catastrophic effects on employment. Drawing on examples from the United States, Pollock reasoned that, since the ostensible purpose of automation was not primarily to disburden *laborers,* but rather, following the imperatives of capital, to lower labor costs and rectify human inconsistencies, it was more likely to precipitate a rise in unemployment, thereby strengthening the hand of capital.[27] Similar arguments quickly gained currency in organized labor, especially in the United States, where automation had already made its greatest strides. And such concerns with the social effects of automation found support from no less a figure than Wiener.[28] But fears of unemployment also met with considerable opposition from those academics working at the nexus of technological and organizational research under the title of "industrial management."

Perhaps no one better symbolized this novel interdisciplinary conjuncture than Herbert Simon, who in 1949 had assumed leadership of its recently created institutional vanguard, the Graduate School of Industrial Administration at the Carnegie Institute of Technology (which later became Carnegie Mellon University). Under Simon's guidance the GSIA became a hub for coordinated interdisciplinary work along the lines he had begun to sketch in *Administrative Behavior*. After cultivating its once provincial psychology program into a leading light of the cognitive revolution, Simon went on to found Carnegie's renowned department of computer science.[29] Thus by the time he came to intervene in the automation debates in the United States in the early 1960's, Simon had become a widely recognized authority in all those fields most pertinent to the substance of the debate: administrative science, economics, psychology, computer science and Artificial Intelligence. Responding to calls by labor leaders before Congress to deflect the specter of industrial automation in the United States, Simon famously objected that fears of automation were unfounded.

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[23] Marx's own comments on automation can be found in Karl Marx, *Grundrisse: Foundations of the Critique of Political Economy*, trans. Martin Nicolaus (Vintage Books, 1973), 690–711.

[24] Oscar Wilde, *The Soul of Man Under Socialism* (J.W. Luce & Company, 1910).

[25] Richard Stites, *Revolutionary Dreams: Utopian Vision and Experimental Life in the Russian Revolution* (New York: Oxford University Press, 1989), 149–55.

[26] Dolores L. Augustine, *Red Prometheus: Engineering and Dictatorship in East Germany, 1945-1990*, Transformations (Cambridge, Mass: MIT Press, 2007), 111–54.

[27] Published in German in 1956 and in English the following year, it grew out of a shorter study originally published in German the year before in a special issue of the *Frankfurter Beiträge zur Soziologie*) **get citation**, Friedrich Pollock, *Automation; Materialien zur Beurteilung der ökonomischen und sozialen Folgen.* (Frankfurt a.M.: Europäische Verlagsanstalt, 1956); Frederick Pollock, *Automation: A Study of Its Economic and Social Consequences* (Praeger, 1957).

[28] Wiener, *Cybernetics; or, Control and Communication in the Animal and the Machine.*; Wiener, "Some Moral and Technical Consequences of Automation."

[29] Hunter Crowther-Heyck, *Herbert A. Simon: The Bounds of Reason in Modern America* (Baltimore: Johns Hopkins University Press, 2005), 1–3, 140–43.

Rest assured, he argued: in the long-term, the laws of comparative advantage demonstrated that automation posed no credible threat to human employment.[30]

Reflecting a sociotechnical imaginary still rooted in the revolutions of the previous century, public debates about automation tended to focus predominantly on its industrial manifestation in the massive steel machines that threatened to displace blue-collar labor. But the seemingly endless possibilities opened up by automation found expression even in the most unlikely of places. Inspired by his encounter with cybernetics, Gotthard Günther wrote brief philosophical essays on robotics for popular science fiction magazines in the 1950's, mixing Hegel, Heidegger, Spengler, and Isaac Asimov. Over the following decades it evolved into a full-blown theory of "polycontextural logic," which he deemed necessary to account for the possibility of machine consciousness.[31] Meanwhile, German philosopher Max Bense and French engineer Abraham Moles were among the first to apply the insights of information theory and cybernetics to aesthetics. While Bense looked to quantify artwork by equating the "creativity" of an artwork with its quantity of information and its communicability with its "redundancy," Moles went even further and wrote of the possibility of "automating the avant-garde." "The artist is not a species that transcends universality," Moles wrote, "he is a programmer, as will we all be."[32]

Some of the most far-reaching transformations heralded by automation took place in the rapidly proliferating sphere of white-collar office work, with the introduction of digital computers for data-processing originally developed out of wartime operations research under the auspices of the Department of Defense.[33] But studies of this phenomenon, in the United States at least, focused primarily on shifts in private industry. Less public attention was given to the growing use of computers to automate bureaucratic functions in *government* agencies—at least outside the military.[34]

Although it failed to capture the imaginations of journalists writing for general interest magazines and newspapers like *Der Spiegel*, the possibility of automating legal decision-making in public administrations became a hotly contested dispute in some circles in the Federal Republic in the late 1950's. Finding vociferous proponents among a few reformers and engineers, the prospect of automating legal decisions prompted mostly hostile responses from West German jurists and public administrators, with a few notable exceptions.[35] Representative was the highly influential and

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[30] Herbert A. Simon, *The New Science of Management Decision* (New York: Harper and Brothers, 1960). My understanding of Simon's understanding of automation is indebted to Daniel Kelly. See, "Herbert Simon and the Work of Tomorrow," Chapter 2 of *Artificial Intelligence as Historical Narrative*. Dissertation, Department of History, UC Berkeley, 2019.

[31] Gotthard Günther, "Can Mechanical Brains Have Consciousness ?," *Startling Stories*, 1953; Gotthard Günther, "The Soul of a Robot," *Startling Stories*, 1955; Gotthard Günther, "Nachwort: 'Die Zweite Maschine'," in *Ich, Der Robot*, by Isaac Asimov, ed. Gotthard Günther (Düsseldorf und Bad Salzig: Karl Rauch Verlag, n.d.); Gotthard Günther, *Das Bewusstsein der Maschinen: eine Metaphysik der Kybernetik* (Agis-Verlag, 1957); Gotthard Günther, "Cybernetic Ontology and Transjunctional Operations," in *Beiträge Zur Grundlegung Einer Operationsfähigen Dialektik*, 1. Aufl, vol. 1, 3 vols. (Hamburg: Meiner, 1976).

[32] Claus Pias and Peter Krapp, "'Hollerith "Feathered Crystal"': Art, Science, and Computing in the Era of Cybernetics," *Grey Room*, no. 29 (2007): 123.

[33] Erik P. Rau, "The Adoption of Operations Research in the United States during World War II," in *Systems, Experts, and Computers: The Systems Approach in Management and Engineering, World War II and After*, ed. Agatha C. Hughes and Thomas Parke Hughes (Cambridge, Mass: MIT Press, 2000); David A. Mindell, "Automation's Finest Hour: Radar and System Integration in World War II," in *Systems, Experts, and Computers: The Systems Approach in Management and Engineering, World War II and After*, ed. Agatha C. Hughes and Thomas Parke Hughes (Cambridge, Mass: MIT Press, 2000). **Fix citation**

[34] For a contemporary account of one aspect of this moment, see David R. Jardini, "Out of the Blue Yonder: The Transfer of Systems Thinking from the Pentagon to the Great Society," in *Systems, Experts, and Computers: The Systems Approach in Management and Engineering, World War II and After*, ed. Agatha C. Hughes and Thomas Parke Hughes (Cambridge, Mass: MIT Press, 2000).

[35] For a positive take, see Herbert Fiedler, "Rechenautomaten in Recht und Verwaltung," *JuristenZeitung* 21, no. 21 (1966): 689–96. Originally published in 1962.

skeptical commentary of legal scholar Karl Zeidler, whose "famous thesis," later became the primary foil for Luhmann's argument in *Law and Automation*.[36] Zeidler framed the problem of legal automation in terms of a standoff between two radically different classes of entity: humans and machines. Under what conditions, he asked in 1959, could machines replace humans in administrative decision-making—if at all? Zeidler's "famous thesis" replied that legal norms, because they are addressed exclusively to humans, for whom they are binding, can only have legal validity if they are also products of an act of human will. Lacking a will, machines can neither be bound to legal norms, nor can they issue them. Every legal decision, he concluded, must therefore be processed "through the consciousness and will of humans, if they are to qualify as legally relevant."[37]

Certainly, Zeidler hardly meant to suggest that *no* involvement of automatic data processing machines ought to be permitted among the more humdrum activities of public administration, only that their use had to be strictly confined to subsidiary and menial tasks far removed from the substance of decision. After all, there was no apparent reason to treat computers any differently than other machines—or animals—that had relieved humans of the drudgery of labor, so long as it didn't frustrate the realization of the unique and ineffable qualities that distinguished the human being from other forms of existence.

» 3. The Will and the Decision «

i. The Indeterminacy of the Will

Luhmann surmised that Zeidler's framing of the question had already gotten him off on the wrong foot. Captive to the "considerable fascination with the machine" that had dominated most conversations about automation, Zeidler presumed the existence of an unbridgeable ontological gulf between humans and machines. It was thus only natural to stage the drama of automation as a confrontation between two metaphysically and ethically heterogeneous objects. But why not subject them instead, Luhmann asked, to a test of functional equivalence?

Beginning with an ontological dichotomy between the human and non-human machines had encouraged the controversy to focus on the problem of "controlling" such machines and preventing them from producing mere "nonsense." But as Gehlen, Simon and Parsons each maintained, technology is *supposed* to escape absolute control, because, like every other institution, its very purpose is to "disburden" consciousness of complex minutiae. In other words, Luhmann's critique of the language of control, domination and hierarchy in his previous essays on bureaucratic organization applied equally to his understanding of technology.[38] There is no legal criterion, for that matter, that would clearly and universally designate which aspects of law can and cannot be handed over to machines. Even more, it was certainly not the case that "only human action can be legally relevant," because legal relevance is a function of the *content* of norms, not their addressee.[39]

Most instructive, however, was Zeidler's assumption that the crucial legal distinction between humans and machines resolved into a question of *will power*. He was not alone. The entire debate about automation, Luhmann thought, "suffers from the indeterminacy of the concept of

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[36] Karl Zeidler, *Über die Technisierung der Verwaltung; eine Einführung in die juristische Beurteilung der modernen Verwaltung.* (Karlsruhe: Müller, 1959).

[37] Luhmann, *Recht und Automation*, 30.

[38] Niklas Luhmann, "Zweck — Herrschaft — System: Grundbegriffe und Prämissen Max Webers," *Der Staat* 3, no. 2 (1964): 129–58. See Chapter Four.

[39] Luhmann, *Recht und Automation*, 31.

will—and, one is tempted to say, its unresolved past [*unbewältigten Vergangenheit*]."[40] With this cryptic invocation of an *unbewältigten Vergangenheit*, Luhmann implied—perhaps ironically—that the problematic concept of the will in the legal tradition was somehow related to the politics of the memory of National Socialism.[41]

So then what did Luhmann mean by the "indeterminacy of the concept of will[?]" Luhmann remained somewhat, well, 'indeterminate' here, reserving a paltry handful of sentences in *Law and Automation* to clarify his thoughts. "Political theory [*Staatslehre*] and legal science," he continued, "had viewed the will as essentially a psychic phenomenon," and so had been forced to use it, albeit with suspicion, as a mere analogy or metaphor. Reliance on such a "psychological concept" had nevertheless burdened these sciences with a "false framing of the problem," which Luhmann held "guilty" for "the stagnation of their research."[42] But what was the source of this conceptual indeterminacy? In *Law and Automation* Luhmann moved on quickly to discuss his solution to the problem without offering any further clarifying comments. *Theory of Administrative Science* (TVW) published the same year, offered little more of substance. There he referred to the old concept of decision as "an act of will," which he in turn characterized as "a kind of inner jolt [*Ruck*], which the individual gives himself according to preceding consideration,"[43] as well as a "free-dancing irrational force."[44] A footnote explained that "decisionistic" concepts emerged from nineteenth-century attempts to replace the "teleological doctrine of the state" (*raison d'etat*, *Staatszweck*) with the juristic fiction of the "person of state," and that they were fundamentally different from the organizational and information theoretical versions decision of the twentieth century.[45]

Luhmann's gnomic remarks about the indeterminacy of the concept of the will might be productively clarified by briefly turning to Patrick Riley's superb discussion of the same problem in modern social contract theories. What Luhmann characterized in 1966 as a specifically nineteenth-century political-psychological concept had much deeper roots. An inheritance of the Christian tradition originating with Paul and Augustine, the will became the centerpiece of the social contract theories of Hobbes, Locke, Rousseau, and Kant. Even Hegel, who repeatedly excoriated contractualist theories, relied on a voluntaristic conception of consent designed to reconcile the particular and the general will in a manner not all too distant from Rousseau.[46] For each of these philosophers, the validity of society's laws, indeed the very legitimacy of its sovereign, depended in some measure upon the consent given by each of its members, that is, upon the free exercise of will. Yet in each case, Riley agreed with Luhmann, the concept of "the will is one of the least clear of

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[40] Luhmann, 32. Luhmann conceded that public lawyers had, in fact, already mostly dispensed with the category of the will. But this was not due to its conceptual weaknesses, but simply because of their "antipathy" to civil law, where the concept continued to play an important role.

[41] I can only speculate as to how Luhmann understood this connection, although his extended discussion of the concept of responsibility at the end of *Law and Automation*, and his exploration of responsibility and liability in both *Functions and Consequences of Formal Organization* and *Legal-Political Indemnification* suggests a long-standing preoccupation. Niklas Luhmann, "Funktionen der Rechtsprechung im politischen System," in *Politische Planung: Aufsätze zur Soziologie von Politik und Verwaltung*, 1971; Niklas Luhmann, *Öffentlich-rechtliche Entschädigung rechtspolitisch betrachtet* (Berlin: Duncker & Humblot, 1965).

[42] Luhmann, *Recht und Automation*, 32.

[43] Niklas Luhmann, *Theorie der Verwaltungswissenschaft* (Köln u. Berlin: Grote, 1966), 51–52.

[44] Luhmann, 70.

[45] Luhmann, 68–69.

[46] "Rousseau, Hegel, and Kant are comparable insofar as all three strove to combine the importance of the will with a rational, universal content. This is true even though the general will, the concrete universal, and the categorical imperative are very different indeed…" Patrick Riley, *Will and Political Legitimacy: A Critical Exposition of Social Contract Theory in Hobbes, Locke, Rousseau, Kant, and Hegel* (Cambridge, MA: Harvard University Press, 1982), 168; For an earlier and influential account of the relationship between Rousseau and Hegel, see George Armstrong Kelly, *Idealism, Politics and History: Sources of Hegelian Thought* (Cambridge University Press, 2010).

ideas, not only in the writers in question but in philosophy generally."[47] With the exception of Kant, the contractualists struggled to produce a viable theory of political order because each consistently failed to distinguish two irreconcilable concepts of the will: the "moral-elective" deciding will, derived from Augustine and fully modernized by Kant, on the one hand, and the "psychological" will most often identified with Hobbes, who called it the "last appetite in deliberation," on the other.[48] Philosophers who adhered to the Cartesian mind-body distinction struggled thereafter to connect the rational and uncaused moral will that elects or "chooses" to the appetitive and material will that causes bodily motion in space.

The Sisyphean fate to which such efforts were condemned hardly requires further exposition here. Important, however, is that this unproductive ambiguity in the concept of the will contributed to the peregrination and consolidation of the voluntarism/automatism antinomy across nineteenth-century political and legal thought. Although drawing the ire of no less than Nietzsche, who found both versions appallingly impoverished, the reception of his alternative conception of the "will to power" probably contributed as much as anything else to the persistence of the antinomy into the twentieth century, when it would attain its most distilled form in interwar Decisionism—until, however, the prospect of administrative automation revealed political voluntarism's profound inadequacy.

ii. The Political System: Differentiation and the Production of Binding Decisions

The key to transcending the political metaphysics of voluntarism, for Luhmann, was already prefigured in the theory of functional differentiation: its very concept threw a wrench in classical conceptions of sovereign political order by relativizing the political. In the place of the "state," Luhmann followed, among others, Talcott Parsons, Shmuel Eisenstadt, and political scientist David Easton in writing of a "political system,"[49] one among several major subsystems of "society."[50] But this system hardly corresponded any longer to the state, not least because it lacked the unity so often ascribed to the latter.[51] Instead, Luhmann described the political system as differentiated into three

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[47] Riley, *Will and Political Legitimacy*, 10.

[48] "*Will,* then, is often used in a great variety of senses: as preference, as wish, as command, as 'rational appetite,' as the capacity to shape personal conduct, as 'moral causality.' It is beyond doubt that the extreme indeterminacy of the word *will,* the fact that it is used in both psychological explanations (based on causes) and moral explanations (based on reasons), is at the root of a great many of the unclarities in the doctrines of Hobbes, Rousseau, and Hegel; that Kant escaped confusion on this point, but only at the considerable cost of radically separating psychology and morality; and that Locke seems to avoid these difficulties only because he was fortunate or politic enough to treat consent and will in two different books, one of them published anonymously." Riley, 11. This distinction encompasses Kant's distinction between *Willensfreiheit* and *Willkür*.

[49] David Easton, *The Political System: An Inquiry Into the State of Political Science* (New York: Knopf, 1953); David Easton, *A Systems Analysis of Political Life* (New York: Wiley, 1965); S. N. Eisenstadt, *The Political Systems of Empires* (Free Press of Glencoe, 1963); Luhmann reviewed the latter work: review of *The Political Systems of Empires*, by S. N. Eisenstadt, *Der Staat* 4, no. 1 (1965): 101–4.

[50] Luhmann's only published work dedicated to the "political system" appeared in 1968, in the essay "Soziologie des politischen Systems," in *Soziologische Aufklärung 1: Aufsätze zur Theorie sozialer Systeme* (Wiesbaden: VS Verlag für Sozialwissenschaften, 2009) In his more properly "administrative" works, he mostly wrote of politics and the public simply as 'environments' of the public administration. He was also working around the same time on a full-length manuscript dedicated to the topic, but he declined to publish it in his lifetime. Niklas Luhmann, *Politische Soziologie*, ed. André Kieserling (Berlin: Suhrkamp, 2015).

[51] As Easton put it—seemingly echoing Ernst Cassirer, but citing only Carl Friedrich—"The truth is that the concept [of the state] was original less an analytical tool than a symbol for unity. It offered a myth which could offset the emotional attractiveness of the church and which later could counteract the myths of internationalism and of opposing national units." Easton, *The Political System: An Inquiry Into the State of Political Science*, 111; Ernst Cassirer, *The Myth of the State* (New Haven: Yale University Press, 1961); Carl J Friedrich, *Constitutional Government and Democracy; Theory and Practice in Europe and America* (Boston: Little, Brown and Company, 1941).

subsystems: public administration, politics, and the public [*Publikum*, not *Öffentlichkeit*], each of which formed a distinct "environment" for the others.

"Public administration" in Luhmann's scheme corresponds most closely to the old concept of the "state," encompassing not only the bureaucratic functions of government agencies, but also the executive, legislative, and judicial institutions as such. Its primary function he designated as the "production of binding decisions" [*Herstellung bindender Entscheidungen*],[52] a concept he derived from Hermann Heller,[53] but which shared crucial features with concepts also found in Parsons, Easton, and Peter Drucker.[54] As binding, these decisions structure the decision premises of the "public," which, in turn, provide legitimacy for the administration by 'selecting' those who will occupy its top positions through political elections. Luhmann thus followed Joseph Schumpeter, in part, in describing "politics" as the competition between elites for positions in the administration,[55] by which it procures the legitimacy from the public needed for administrative decisions to be binding.[56]

And so just as Karl Deutsch proposed over a decade prior, Luhmann agreed that the political system could be understood as a complex communication circuit.[57] Strictly speaking, none of its subsystems controls the others through commands—for that would undo the advantages of differentiation—but rather reciprocally influence one another through their own boundary-maintaining behaviors. But in every case the medium of this communication remains the decision.

» 4. Decomposing the Decisionist Will «

i. Decisions as Communications

Despite the concept of the will's fraught and "unmastered past," Luhmann followed a precedent he had set in his treatment of other semantically overburdened terms, and, resisting the urge to discard it altogether, he determined to 'work through' it instead. The first step would be to rectify the conceptual indeterminacy of the will by clarifying its relationship to the decision.

Will and decision were so tightly bound together in European intellectual history as to have become indissociable, if not practically indistinguishable. For example, Jeremy J. Shapiro likely did not distort Habermas's intended meaning when he translated the term *Willensbildung* [literally, "will formation"] in "Technology and Science as Ideology" as "political decision-making."[58] In each of its variants, moral-elective, physiological, creative, and rational, the will had provided the agency behind every decision. But if, as Luhmann claimed, decision-making could no longer be considered an "act

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[52] Luhmann, *Theorie der Verwaltungswissenschaft*, 67.

[53] Luhmann, 20; Hermann Heller, *Staatslehre: herausgegeben von Gerhart Niemeyer* (A. W. Sijthoff, 1934); David Dyzenhaus, *Legality and Legitimacy: Carl Schmitt, Hans Kelsen and Hermann Heller in Weimar* (Oxford: Oxford University Press, 1997).

[54] Luhmann, *Theorie der Verwaltungswissenschaft*, 56; On the variant of this idea in social science in the in the United States, see Hunter Crowther-Heyck, *Age of System: Understanding the Development of Modern Social Science* (Baltimore: Johns Hopkins University Press, 2015), 126–42.

[55] Niklas Luhmann, "Politische Planung," in *Politische Planung: Aufsätze zur Soziologie von Politik und Verwaltung*, 1971, 75 fn. 37

[56] Luhmann, *Recht und Automation*, 21–29; These ideas found their earliest expression in two books from 1965: Luhmann, *Öffentlich-rechtliche Entschädigung rechtspolitisch betrachtet*; Niklas Luhmann, *Grundrechte als Institution: ein Beitrag zur politischen Soziologie* (Berlin: Duncker & Humblot, 1974). Their arguments will be discussed briefly in Chapter Seven.

[57] Karl W. Deutsch, "On Communication Models in the Social Sciences," *The Public Opinion Quarterly* 16, no. 3 (1952): 356–80; Karl W. Deutsch, *Nationalism and Social Communication: An Inquiry Into the Foundations of Nationality* (Cambridge ; New York: MIT Press and Wiley, 1953); This idea was then elaborated into his highly influential book, *The Nerves of Government; Models of Political Communication and Control* (New York: Free Press, 1963).

[58] See the translator's preface to Jürgen Habermas, *Toward a Rational Society; Student Protest, Science, and Politics*, trans. Jeremy J. Shapiro (Boston: Beacon Press, 1970), vii.

of will, a kind of inner jolt [*Ruck*], which the individual himself gives according to preceding consideration," how then ought it be described?

Following Simon, Luhmann treated decisions as a constitutive element of every organizational system.[59] But they assume a very special role in public administrations, whose primary function is to produce binding decisions.[60] This definition, however, risked eliciting associations with the more ominous and highly disparaged notions of decision from past and present. For even in the 1990's Luhmann would still find himself accused by political theorist Klaus von Beyme of a "stubborn decisionism."[61] It would prove difficult, Luhmann acknowledged, to avoid entirely comparisons with "mathematical-calculative decision theory or automatic data processing, the juristic doctrine of the act of will, a politically spiced-up [*gepfeferter*] decisionism, or psychological research on action motivation and decision-making [*Entschlussfassung*]."[62] Such theories, Luhmann charged, could not adequately grasp the *social* specificity of administrative decisions. As in "Purpose—Domination—System," *Theory of Administrative Science* actively downplayed the significance of "obedience" and "command" as categories of bureaucratic communication. Luhmann claimed that neither "obedience" nor "command" could comprehend the essence of administrative decision, because both tended to "suggest elitist models or at least the moral omnipotence of the romantic."[63] To make the concepts of will and decision productive for sociological research—and to exit the antinomy—it was therefore necessary to remove their "individualistic-psychological" imprimatur and treat them instead as species of "communicative action."[64] "Only the modern theory of communicative systems," Luhmann argued, was in the position "to release the concept of will from its psychic substrate" and make it applicable to "every communication net that concerns decisions."[65] Decisions were no different: the "concept of binding decisions," he claimed, is also a "system concept."[66]

It is critical to acknowledge that Luhmann here took aim not only at Schmitt's irrationalist brand of decisionism, but at least as much at the theories of rational decision revolutionizing the

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[59] He would maintain this connection for the rest of his career. See, for example, the posthumously published manuscript, written during the 1990's, *Organisation und Entscheidung* (Wiesbaden: Westdeutscher Verlag, 2000); see also Niklas Luhmann, "Zur Komplexität von Entscheidungssituationen," *Soziale Systeme* 15, no. 1 (March 2009): 3–35.

[60] "The particular feature, which distinguishes administration from other organizations, lies in a widespread belief in the *specialization of the system for decision activities*." Luhmann, *Theorie der Verwaltungswissenschaft*, 47–48.

[61] Klaus von Beyme, *Theorie Der Politik Im 20. Jahrhundert: Von Der Moderne Zur Postmoderne*, Suhrkamp Taschenbuch Wissenschaft 969 (Frankfurt am Main: Suhrkamp, 1991), 97; Cited from Michael Th Greven, *Kontingenz und Dezision: Beiträge zur Analyse der politischen Gesellschaft* (Opladen: Leske + Budrich, 2000), 51; On the relationship between Luhmann and Schmitt see William Rasch, "Locating the Political: Schmitt, Mouffe, Luhmann, and the Possibility of Pluralism," *International Review of Sociology* 7, no. 1 (March 1997): 103–15; Thomas Wirtz, "Entscheidung. Niklas Luhmann und Carl Schmitt," in *Widerstände der Systemtheorie: Kulturtheoretische Analyse der Werke von Luhmann*, ed. Cornelia Vismann and Albert Koschorke (Akademie Verlag, 1999), 175–198; Chris Thornhill, "Niklas Luhmann, Carl Schmitt and the Modern Form of the Political," *European Journal of Social Theory* 10, no. 4 (November 1, 2007): 499–522.

[62] Luhmann, *Theorie der Verwaltungswissenschaft*, 67.

[63] Luhmann, 68; The idea that Schmitt's form of decisionism also represented a kind of romanticism, despite his own well known derision of "political romanticism," could also be found in Karl Löwith, "Politischer Dezisionismus," *Revue internationale de la théorie du droit* 9 (May 1934): 101–23; and Hermann Lübbe, *Theorie und Entscheidung: Studien zum Primat der praktischen Vernunft* (Freiburg: Verlag Rombach, 1971); Carl Schmitt, *Political Romanticism*, trans. Guy Oakes, Reprint edition (Abingdon, Oxon; New York, NY: The MIT Press, 1986); On Schmitt's own romanticism, see John P. McCormick, *Carl Schmitt's Critique of Liberalism: Against Politics as Technology* (Cambridge; New York: Cambridge University Press, 1997); and Rüdiger Campe, "Is 'the Political' a Romantic Concept?," in *The Oxford Handbook of Carl Schmitt*, ed. Jens Meierhenrich and Oliver Simons (New York: Oxford University Press, 2016).

[64] Luhmann, *Theorie der Verwaltungswissenschaft*, 69. Interestingly, Luhmann used the phrase "communicative action" even before Habermas!

[65] Luhmann, *Recht und Automation*, 32.

[66] Luhmann, *Theorie der Verwaltungswissenschaft*, 70.

Cold War social sciences in the United States.[67] Although historians have only recently begun to shed light on their common context,[68] Luhmann, along with Habermas, seems to have been alert to their similarities in the 1960's.[69] Despite the pivotal role Luhmann accorded decision-making, his was always and above all a theory of systems, not of decisions—a distinction that he felt other theorists consistently failed to draw.[70] Given the more than superficial similarity of their respective approaches, Luhmann found it necessary to stress repeatedly their differences in virtually every major text published from 1966-68 to dispel any confusion.[71] Responsible, perhaps, had been the recent success of "systems analysis" and "systems engineering" in helping to implement automated systems in the United States using models derived from rational choice theory.[72] But in Luhmann's estimation, their notion of systems relied exclusively on an individualistic conception of action "abstracted into a rational-scientific model-concept," that proved inept at producing sociological insight.[73] To really grasp the decision in the context of social systems like law, "it must be understood in its full concreteness as communicative action, as a transmission of information processing, and not simply be reduced to an unambiguously structured choice between already settled alternatives."[74] For the truly rational achievement of social systems consisted in making such a choice possible in the first place, in making indeterminate complexity determinate. The rationality of systems lay not in *deciding*, but their use of selectivity to make the world *decidable*.

ii. World Complexity and Decisions

In neglecting their communicative dimension, theories of decision betrayed their inability to take stock of a defining characteristic of the modern era, one that had made the concept of "decision" so important and which catalyzed functional differentiation. This was the extreme increase of what Luhmann, beginning in 1966, called "world complexity." By excavating the origins of theories of decision with reference to this concept and the historical origins of the experience it described, Luhmann hoped both to demonstrate their fatal weaknesses and to reveal some possible resources for constructing a more robust theory of social systems.

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[67] S. M. Amadae, *Rationalizing Capitalist Democracy: The Cold War Origins of Rational Choice Liberalism* (Chicago: University of Chicago Press, 2003); Paul Erickson et al., *How Reason Almost Lost Its Mind: The Strange Career of Cold War Rationality* (Chicago ; London: The University of Chicago Press, 2013); Crowther-Heyck, *Age of System*; Mark Solovey and Hamilton Cravens, eds., *Cold War Social Science: Knowledge Production, Liberal Democracy, and Human Nature* (New York: Palgrave Macmillan, 2016).

[68] Daniel Bessner and Nicolas Guilhot, eds., *The Decisionist Imagination: Sovereignty, Social Science and Democracy in the 20th Century* (New York: Berghahn Books, 2018).

[69] See, for example, Jürgen Habermas, "Dogmatism, Reason, and Decision: On Theory and Praxis in Our Scientific Civilization," in *Theory and Practice*, trans. John Viertel (Boston: Beacon Press, 1988).

[70] "Man muß schärfer als bisher zwischen Systemtheorien und Entscheidungstheorien trennen." Luhmann, "Politische Planung," 1971, 74.

[71] Luhmann, *Theorie der Verwaltungswissenschaft*; Niklas Luhmann, "Politische Planung," *Jahrbuch Für Sozialwissenschaft* 17, no. 3 (1966): 271–96; Niklas Luhmann, "Soziologische Aufklärung," *Soziale Welt* 18 (1967): 97–123; Luhmann, *Zweckbegriff und Systemrationalität*.

[72] Agatha C. Hughes and Thomas Parke Hughes, eds., *Systems, Experts, and Computers: The Systems Approach in Management and Engineering, World War II and After* (Cambridge, Mass: MIT Press, 2000); In particular, see Jardini, "Out of the Blue Yonder: The Transfer of Systems Thinking from the Pentagon to the Great Society"; Wiebe E. Bijker, Thomas Parke Hughes, and Trevor Pinch, eds., *The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology*, Anniversary ed (Cambridge, Mass: MIT Press, 2012).

[73] Luhmann, *Recht und Automation*, 21.

[74] Luhmann, 22.

The modern concept of "complexity" has long been fraught by an indeterminacy no less severe than that of the will.[75] Luhmann's own account of complexity fluctuated and evolved over time, and neither he nor his critics felt that he ever landed on a fully satisfactory account.[76] In the 1960's and 70's, however, Luhmann consistently defined complexity in terms of *possibility* and as *system-relative*. Within his early oeuvre, "world complexity" essentially reoccupied the position previously assumed by "infinity." It designated not the "size" of the universe, whether this were construed in terms of its spatial expanse, the number of entities within it, or their infinite divisibility; but rather the variety of its "possibilities." And unlike the purely mathematical formalism of infinity, the concept of complexity was amenable to differentiation into truly heterogeneous types, above all into those three "meaning dimensions" Luhmann categorized as objective, temporal, and social. Or, from another angle, the problem of "complexity" describes the "horizontal" dimension of *Kontingenzsinn*, while infinity corresponds to its vertical dimension.

In numerous essays from 1966-1971, Luhmann repeatedly echoed Heidegger, Arendt, and Blumenberg's varied accounts of the epochal threshold to modernity, describing how an "awakened sense of the overtaxing of humanity through the world"[77] had manifested in the form of a "modern world consciousness," which had culminated in the space-age "surveyable" view of the "earth as a globe [*Erdball*]."[78] As "planet Earth" the world became both finite as an objective and material totality, and infinitely complex in its possibilities. But just as the experience of the abyss of infinity had persuaded Leibniz to embrace the logic of selective decision in his account of rationality, the dawning of world complexity forced modernity in all its aspects to confront "the necessity of decision."[79] Luhmann reasoned that the hyper-proliferation of possibilities had transformed the function of decisions and heightened their practical social salience.[80] Decisions came to play an ineluctable role in managing this complexity—or rather, in Luhmann's new phrase, in *reducing complexity*—because they restricted the number of possibilities through a process of "selection."

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[75] David Byrne, *Complexity Theory and the Social Sciences: An Introduction* (Routledge, 2002); Peter Godfrey-Smith, *Complexity and the Function of Mind in Nature* (Cambridge: Cambridge University Press, 1996); William Rasch, "Theories of Complexity, Complexities of Theory: Habermas, Luhmann, and the Study of Social Systems," *German Studies Review* 14, no. 1 (February 1, 1991): 65–83; Nicholas Rescher, *Complexity: A Philosophical Overview*, Science and Technology Studies (New Brunswick, N.J: Transaction Publishers, 1998); Herbert A. Simon, "The Architecture of Complexity," *Proceedings of the American Philosophical Society* 106, no. 6 (1962): 467–82; Mitchell M. Waldrop, *Complexity: The Emerging Science at the Edge of Order and Chaos* (Simon and Schuster, 1993).

[76] Including even those sympathetic to some of the major thrusts of Luhmanns' theory. For example, Danilo Zolo, "Function, Meaning, Complexity: The Epistemological Premisses of Niklas Luhmann's 'Sociological Enlightenment,'" *Philosophy of the Social Sciences* 16, no. 1 (March 1, 1986): 115–27; Danilo Zolo, *Democracy and Complexity: A Realist Approach* (Penn State Press, 1992).

[77] Niklas Luhmann, "Soziologische Aufklärung," in *Soziologische Aufklärung 1: Aufsätze zur Theorie sozialer Systeme* (Wiesbaden: VS Verlag für Sozialwissenschaften, 2009), 106.

[78] Luhmann, *Theorie der Verwaltungswissenschaft*, 68; Benjamin Lazier, "Earthrise; or, The Globalization of the World Picture," *The American Historical Review* 116, no. 3 (June 1, 2011): 602–30; Martin Heidegger, "The Age of the World Picture," in *Off the Beaten Track*, ed. Julian Young and Kenneth Haynes (Cambridge ; New York: Cambridge University Press, 2002), 57–85; Arendt, *The Human Condition*; Hans Blumenberg, *The Genesis of the Copernican World*, trans. Robert M. Wallace (Cambridge: The MIT Press, 1985).

[79] Luhmann, *Theorie der Verwaltungswissenschaft*, 68.

[80] The most influential early articulation of this position in West Germany, aside from Luhmann's, see Lübbe, *Theorie und Entscheidung: Studien zum Primat der praktischen Vernunft*; For more recent related yet distinct accounts of the "necessity of decisions" in modernity, influenced in varying degrees by Blumenberg, Luhmann, and Lübbe, see Greven, *Kontingenz und Dezision*; Kari Palonen, *Das "Webersche Moment": zur Kontingenz des Politischen* (Opladen: Westdeutscher Verlag, 1998); Uwe Schimank, *Die Entscheidungsgesellschaft: Komplexität und Rationalität der Moderne* (Wiesbaden: VS, Verl. für Sozialwiss., 2005); For the equivalent experience among social scientists in 1950's USA, see Beniger, *The Control Revolution*; Crowther-Heyck, *Age of System*; Orit Halpern, *Beautiful Data: A History of Vision and Reason since 1945* (Duke University Press, 2015).

The almost pathological obsession with the voluntary decision in modern European thought, Luhmann argued, thus simply reflected an incomplete intellectual reckoning with the transition to this "modern world consciousness." Decisionism, in other words, amounted to a 'misrecognition' of the relationship between decision and complexity, a misrecognition due to the persistence of ontological metaphysics. The origins of modern nihilism, for Luhmann as for Blumenberg, Löwith, and others, belonged to this context. Decisionism comprehended the infinity (and ultimately, contingency) of the world as a threatening abyss, that is, as a source of nihilism. In the face of such an abyss, what other recourse could the human being, or a "people" have but that Kierkegaardian leap of faith embodied in the existential decision? "Looked at normatively," Schmitt famously declared, "the decision emanates from nothingness."[81] As far back as "de Maistre we can also see a reduction of the state to the moment of the decision, to a pure decision not based on reason and discussion and not justifying itself, that is, to an absolute decision created out of nothingness."[82] But to Luhmann Schmitt's bold declarations had simply mistaken the complexity involved in logical indeterminacy for ontological nullity. "In the end, however, all types of decisionism," Luhmann declared, "are a reaction to the immense complexity of the modern world."[83]

Existential decisionism, whether of a Schmittian or Sartrean flavor, was far from alone in this respect. It was but one among many techniques that had evolved since the seventeenth century to grapple with world complexity. Along with statistical analysis, the voluntarism of the decision represented a nineteenth-century alternative—one could say, a "functional equivalent"—to the eighteenth century's faith in the automatic and acentric mechanisms of the marketplace, civil society, the public sphere, progress or "world history." Each promised to reduce world complexity to proportions commensurate to human life. But to the theorists of the "primacy of the political," only the ungrounded will appeared commensurate to the task of "steering" a society threatening to break apart under the weight of the scientific, technological and economic progress that had once promised social harmony. The Enlightenment's confidence in possible progress had not accounted for the dialectic of complexity—that increasing economic, scientific and technological capacity increased the complexity of the social world into a "second nature" even more complex and unruly than the first nature it strove to master. Decisionism was thus but one possible response to the perceived failure of that form of "human self-assertion" called "progress" to reckon with the world's complexity.

But decisionism was no less subject to the same dialectic of complexity that belied narratives of progress. The unmasterable complexity that made decisionistic political theories so attractive in the first place also undermined it. The political system has an indispensable social function, Luhmann assured, but it cannot be said to "steer" society any more than "automatic" processes like law, "progress" or the market. This was the specific insight of the theory of functional differentiation. Politics could not be credited with systemic primacy without undoing the gains in complexity achieved by functional differentiation. Simply put: the sovereign political will was far too blunt an instrument for describing or normatively orienting modern societies. It could reduce *world* complexity, but only at the cost of annihilating *social* complexity. Political voluntarism, in other words, amounted to a project of dedifferentiation. And there was little that troubled Luhmann more: he considered it the signature characteristic of National Socialism.

From the perspective of a theory of complexity, the fundamental shortcoming of political essentialisms like Schmitt's friend/foe distinction, as well as those that restricted "the political" to

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[81] Carl Schmitt, *Political Theology: Four Chapters on the Concept of Sovereignty*, trans. George Schwab (Chicago: University of Chicago Press, 2010), 31–32.
[82] Schmitt, 66.
[83] Luhmann, *Recht und Automation*, 140 fn. 13. Luhmann included Heidegger's concept of "*Entschlossenheit*" among them.

actions pertaining to the state, was not that they failed to reflect reality altogether, but that they fixated on but one possible "functionally equivalent" solution to the problem of world complexity and presented it as the sole possible solution.[84] Such essentialisms, accordingly, were too narrow and too broad at the same time: too narrow because they denied the empirical reality of other political configurations, and too broad because they equated the highly indeterminate and overarching problem of "world complexity" facing the total system of society with the specific forms of complexity reduced by the production of binding decisions. In other words, these theories erred in making the boundaries drawn by political decisions coextensive with the boundaries of society.

Redefining infinity in terms of complexity, shifting emphasis from the vertical to the horizontal, furnished Luhmann with the means to readjust the modern "world picture" so as to neutralize the lure of nihilism that provoked the more troubling brands of political-existential decisionism. Instead of an irrational leap over the abyss of infinity, the decision, understood as communicative action, would become an immanent component of the continuous and rational self-organization of world complexity. Fortunately, recent scientific developments had made it possible to define decision in a language commensurate to the problem of complexity: that of mathematical information theory.

iii. Decision-Making and the Reduction of Complexity

In everyday parlance we speak of "making" decisions.[85] Here decisions are understood to be produced by the spontaneous action of an uncaused will, and have a causal relation to some state of affairs they "bring about." Certainly Luhmann retained some of this vocabulary when he defined the function of public administration to be the "production of binding decisions." But such an awkward choice of words should not be taken too literally.[86] For in his definition of decision—albeit almost imperceptibly—Luhmann further cemented his ongoing revision of traditional metaphysics. Less a factor of *production*, Luhmann's decisions instead performed *reductions*.

Ashby had, in important respects, already drawn the crucial connections between information theory, complexity-as-possibilities, boundary maintenance, structure-formation, and decision-making, which Luhmann encapsulated in his famous phrase, "the reduction of complexity."[87] Working from Ashby's adaptation of the Shannon-Wiener definition of information,[88]

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[84] For example: "Sociology will therefore be able to direct its own research towards such possibility of rational dealings with the indeterminate unknown, without losing sight of the fact that even less rational forms of reduction, like magic, emotional socialization or friend/foe schematizations, fulfill the same function." Luhmann, "Soziologische Aufklärung," 2009, 100.

[85] Suggesting, perhaps, an intrinsic connection to what Heidegger had referred to as "productivist" metaphysics. Martin Heidegger, *The Question Concerning Technology, and Other Essays* (New York: Garland Pub, 1977); Heidegger, "The Age of the World Picture"; Brigitte Beier and Rheinisch-Westfälische Technische Hochschule Aachen, *Die Frage Nach Der Technik Bei Arnold Gehlen Und Martin Heidegger* ([Aachen: Fotodruck J. Mainz], 1978), http://dds.crl.edu/CRLdelivery.asp?tid=16204; Jürgen Habermas, *The Philosophical Discourse of Modernity: Twelve Lectures*, trans. Frederick G. Lawrence (Cambridge, Mass.: The MIT Press, 1990).

[86] It was taken somewhat more literally by the social scientists in the United States who first began to describe the function of organizations as one of "producing decisions." See Crowther-Heyck, *Age of System*, 136.

[87] Although many identify the phrase "reduction of complexity" with Luhmann because he made it into perhaps the single most central component of his theory of systems, it was used frequently by social scientists and cyberneticists in the 1950's and 1960's. But it can be traced back at least as far as statistician Karl Pearson's use in the nineteenth century: for example, in 1892 he wrote that he considered the "atom and molecule" not as truly real things, but "as *conceptions* which very greatly reduce the complexity of our description of the phenomena" Karl Pearson, *The Grammar of Science* (Walter Scott, 1892), 210; For more on Pearson, who became especially important in Germany, see Theodore M. Porter, *Karl Pearson: The Scientific Life in a Statistical Age* (Princeton University Press, 2010).

[88] C. E. Shannon, "A Mathematical Theory of Communication," *The Bell System Technical Journal* 27, no. 3 (July 1948): 379–423; Wiener, *Cybernetics; or, Control and Communication in the Animal and the Machine.*; Katherine Hayles, *Chaos Bound:*

Luhmann simply defined decision as the "the *transmission* [Mitteilung] *of the results of information processing*."[89] In other words, a decision passes on more information than its maker had received by reducing the prevailing uncertainty about a specific state of affairs; it only "produces" information by restricting the previously available space of possibilities for acting or experiencing. Decision-making is thus irreducible to the thought-process of a solitary decider. A decision only qualifies as such when the information it "transmits" has a selective effect on the possibility space of other deciders. In Simon's terms, a decision is an event that transforms someone else's decision premises: it restricts the number and type of possibilities from which they can henceforth select, but also gives those possibilities greater determinacy.[90] It creates a "choice architecture." When I say we will go get lunch at noon, I bracket the indeterminate infinity of other logically possible activities we could do at that time, and thereby delimit the "set" of places and cuisines from which we can select.

Command is therefore but a very narrow form of decision, one that reduces complexity very crudely. It constrains decision premises to a narrow binary: *do this, or else*. Binaries are powerful. But their systemic function with respect to complexity varies considerably with the degree of their generalization. Whereas law, for example, operates with a highly generalized binary that divides the world into legal/illegal, preserving nearly limitless possibilities, the command intervenes in a much more specific situation, and attempts to exclude all possibilities but one. While restricting the ambiguity or indeterminacy of a situation, command runs the risk of precluding possible actions otherwise available to subordinates which might better serve system functions. And appeal to the coercive "or else" comes with its own disadvantages, which Luhmann would treat in his later discussions of "trust" and "power" as a generalized media of communication.[91]

And so in 1966, and with respect to the category of decision, Luhmann began to merge his functionalist theory of social systems with a cybernetic theory of communication.[92] He had already redefined systems in 1964 as a process of stabilizing boundaries, rather than as an ordering of parts and wholes.[93] But whereas he previously described this process in terms of human actions and "generalized expectations," he now described them in terms of complexity-reducing communicative processes. Without such structurally-induced reductions, human action under conditions of such social complexity would be unthinkable.[94]

Orderly Disorder in Contemporary Literature and Science, 1 edition (Ithaca, N.Y: Cornell University Press, 1990); William Ross Ashby, *An Introduction to Cybernetics* (J. Wiley, 1956).

[89] Luhmann, *Theorie der Verwaltungswissenschaft*, 69.

[90] Herbert A. Simon, *Models of Man: Social and Rational; Mathematical Essays on Rational Human Behavior in Society Setting* (New York: Wiley, 1957); Simon, *The New Science of Management Decision*.

[91] Niklas Luhmann, *Trust and Power: Two Works*, ed. Tom Burns and Gianfranco Poggi, trans. Howard Davis, John Raffan, and Kathryn Rooney (Chichester; New York: Wiley, 1979); Niklas Luhmann, *Macht im System*, ed. André Kieserling (Berlin: Suhrkamp, 2013); In fact, the dynamic of communicating decisions outlined in this paragraph also already anticipates Luhmann's radical elaboration of Parson's concepts of double contingency and generalized media over the following years, which he would make into the very basis of his identification of the possibility of social order with the possibility of communication. See Niklas Luhmann, "Generalized Media and the Problem of Contingency," in *Explorations in General Theory in Social Science: Essays in Honor of Talcott Parsons*, ed. Jan J Loubser et al., vol. 2, 2 vols. (New York, NY: Free Press, 1976); R. Vanderstraeten, "Parsons, Luhmann and the Theorem of Double Contingency," *Journal of Classical Sociology* 2, no. 1 (March 1, 2002): 77–92.

[92] Although there is evidence that he contemplated versions of this merger much earlier in the decade, only in 1966 did he begin to give it unqualified expression. For these earlier texts, see Niklas Luhmann, *Schriften zur Organisation 1: Die Wirklichkeit der Organisation*, ed. Veronika Tacke and Ernst Lukas (Wiesbaden: Springer Fachmedien Wiesbaden, 2018).

[93] Niklas Luhmann, "Funktionale Methode und Systemtheorie," in *Soziologische Aufklärung 1: Aufsätze zur Theorie sozialer Systeme* (Wiesbaden: VS Verlag für Sozialwissenschaften, 2009).

[94] "One can grasp the function of system formation with the formula 'reduction of complexity,' which means the exclusion [*Ausscheidung*] of other possibilities… The function of structure formation lies however in the transformation

Finally, it is crucial to keep in mind that, as in the theory of information, the complexity that is reduced by system formation is always a complexity of possibilities, not of things. This was essentially an insight he borrowed from Ashby: as a selection, every decision restricts the possibility space of a system, such that a non-arbitrary number of possible relations can be established between its elements, and between itself and its environment.[95] In other words, decisions facilitate systemic self-organization by selectively reducing environmental complexity, because only then can the system attain requisite variety.[96]

iv. The Cybernetic Will

Having established decision as a systems concept, Luhmann could now redefine the will in its terms as well. Although many decisions are made based on information gathered from a system's external environment, others depend primarily on information provided by the system itself. Only in the latter case, Luhmann argued, ought one speak of an act of "will."

Here Luhmann expanded on an argument originally proposed by Karl Deutsch (1912-1992). The Prague-born political scientist was perhaps the first to develop a sophisticated cybernetic approach to studying the behavior of large-scale political systems, joining the insights of both Norbert Wiener, with whom he collaborated and taught at MIT, and Herbert Simon. Deutsch's *Nerves of Government*, translated into German as *Politische Kybernetik: Modelle und Perspektiven*, would come to have an outsized influence on the transformation of German public administration in the 1970's, in no small part due to Luhmann's similarly aligned contributions in the mid-1960's.[97] Following Deutsch's argument in *Nerves*, Luhmann reserved the concept of will for describing the self-referential character of decision-making under conditions of uncertainty—that is, when sufficient environmental information for making a selection between alternatives is lacking.[98] Such a will is only ever exercised whenever a system must take recourse to its own internalized history—its *memory*—to initiate a decision process, instead of waiting to be prompted by its environment to make a decision. Lacking the requisite information to make a decision, the system's own memory sometimes fills in the gaps with substitute information. "The will is only possible in a system that can save [*speichern*] information in an orderly fashion… One can therefore characterize the will as the displacement of external through internal information."[99] And so far from "that free-dancing

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and minimization of the problem of the most extreme complexity of the world into a format according to which human experience and action can be oriented meaningfully." Luhmann, "Politische Planung," 1971, 73.

[95] Ashby, *An Introduction to Cybernetics*; W. Ross Ashby, "Principles of the Self-Organizing Dynamic System," *The Journal of General Psychology* 37, no. 2 (October 1, 1947): 125–28; W. Ross Ashby, "Computers and Decision Making," in *Mechanisms of Intelligence: Ashby's Writings on Cybernetics*, ed. Roger Conant (Seaside, Calif.: Intersystems Publications, 1981).

[96] The link between "selection" and the autonomy of a social system was also drawn in the 1950's in the field of operations research by C. West Churchman, a student of William James'. C. West (Charles West) Churchman, Russell Lincoln Ackoff, and E. Leonard Arnoff, *Introduction to Operations Research* (New York: Wiley, 1957); Crowther-Heyck, *Age of System*, 106; Despite the closeness of their formulations, I have only been able to find one reference to Churchman et al. in Luhmann's early work. Niklas Luhmann, "Kann die Verwaltung wirtschaftlich handeln?," *Verwaltungsarchiv* 51 (1960): 100.

[97] Pascal Hurni, "Cybernetics, German Public Administration and the Reframing of the Public Servant in the Neo-Verwaltungswissenschaft," in *The European Public Servant: A Shared Administrative Identity?*, ed. Patrick Overeem and Fritz Sager (ECPR Press, 2015).

[98] Deutsch defined the will as "the set of *internally labeled decisions and anticipated results, proposed by the application of data from the system's past and the blocking of incompatible impulses or data from the system's present or future*." Deutsch, *The Nerves of Government; Models of Political Communication and Control*, 105. Unsurprisingly, Deutsch also defined consciousness as "selection:" "Consciousness… involves not one operation but at least two. It requires first of all a high degree of selection and abstraction from the stream of primary or lower-order messages… But it also implies, as a rule, the more or less simultaneous scanning or inspection of as much of this abridged second-order information…" p. 101

[99] Luhmann, *Recht und Automation*, 33.

irrational force," which characterized nineteenth-century doctrines of the will, its systems-theoretical counterpart was best characterized as "something related to laws and record offices—a rational function of the absorption of uncertainty on the basis of system-internally ordered decision premises."[100] It was nothing more than an act of institutionalized memory: the use of an archive as a mechanism for selection in the present. And such selectivity, as Deutsch argued, constituted a cybernetic stand-in for the classical notion of "free will."[101]

Such a reevaluation of the meaning of the will would have profound consequences for political and legal theory. First of all, whereas the will had traditionally been assigned a broad range of capacities over the course of its history, of which decision-making was but one, Luhmann treated decision as the more universal category. The will remained useful only as a functional concept pressed into the service of a theory of decision-making. In any other context, as he put it the following year, it would remain "nothing more than a symbol for unscrutinized selective achievements" [*undurchschaute Selektionsleistungen*].[102]

Furthermore, the "rationalization of the will" that animated the German Idealist transformation of early modern political voluntarism would thus apply to bureaucratic and machine decision-making no less than to their human counterparts. It was of particular importance to Luhmann that this move prepared the ground for a functionally grounded empirical comparison of humans and computers. And should such a comparison be carried out systematically Luhmann mused, it "would probably come to the conclusion that humans require less will than machines because they are more capable of learning."[103] By this Luhmann meant that humans likely required *less* will when making decisions because they outstripped the computers of the 1960's in their capacity to respond to environmental complexity—in Ashby's terms, humans have greater requisite variety. This seemingly minor yet counterintuitive move had massive consequences. Voluntarism no longer opposed automatism, but *learning*. And this meant that voluntarism could be *programmed*.

» 5. The Auto-Nomos of the Earth «
Automating Decisionism

With this detour through the abstract concepts of the will and decision we've moved pretty far from the objects of sociological inquiry with which we began. Luhmann's aim was to arrive at a concept of decision that could serve as a common denominator to help mediate the competing claims of two groups of experts on the question of administrative reform: jurists and technicians. Defining the concept of decision in the terms of a systems theory of communication was only the first step. It would have to be further integrated into a theory of organized social systems.

Recall that in defining decisions in terms of communications, Luhmann made reference to the concept "decision premises." Closely related to the "generalized expectations" emphasized in *Functions and Consequences of Formal Organization*, decision premises amount to schemas that organize experience in terms of possibilities of deciding on certain actions. Every administrative agency operates under specific premises that constrain the kinds of decisions they can make. In highly rationalized bureaucracies, these premises can be formalized and treated as "*decision programs*." A concept originally coined by Herbert Simon in 1957 in *Models of Man*, decision programs essentially

[100] Luhmann, *Theorie der Verwaltungswissenschaft*, 70.
[101] Deutsch, *The Nerves of Government; Models of Political Communication and Control*, 107–9.
[102] Luhmann, "Funktionen der Rechtsprechung im politischen System," 48.
[103] Luhmann, *Recht und Automation*, 33.

amount to glorified algorithms: formal, step-by-step instructions that determine the possible behaviors of a system by tightly coupling the relationship between their inputs and outputs.[104]

Combining the kernel of Simon's theory with Ashby's account of the system/environment distinction, Luhmann assigned decision programs a central role in mediating systems' environmental relationships. They amounted to nothing less than a fundamental structure of modern administrative systems, a constituent of their environment boundary and therefore of their continued existence as systems. In Luhmann's words, decision programs function by "*transforming external environmental challenges and conditions of existence* […] *into internal decision premises* that are strictly respected within the system."[105] In the public administration these programs took shape as positive public law.

In fact, Luhmann had already explored the program concept two years earlier, in 1964. The ironically titled "In Praise of Routine" emulated the iconoclastic gesture of its sixteenth-century humanist namesake, Erasmus's celebrated pamphlet *In Praise of Folly*, by impishly revaluing as a virtue what tradition had long deplored as a vice. Except in a dialectical reversal, Luhmann outbid Erasmus's humanism with irony of a higher-order, making a virtue out of one of contemporary humanism's most familiar vices: repetitive, rote, and mechanical routine. All the more scandalous, Luhmann preached the benefits of bureaucratic routine under the heading of that other bogeyman of 1960's ethical humanism, the computer jargon of "programming."[106]

"Routine," Luhmann recognized, had been long derided as a negative yet unavoidable consequence of bureaucratic organization. It acted as a kind of limit concept, designating "the point where rationality becomes a burden."[107] But was bureaucracy really so unique in this respect? Even modern phenomena that had presented themselves as the epitome of hostility to routine—Luhmann cited "fashion," "recreation" and even "hysteria"—had been subjected to its disciplinary rhythms.[108] But such phenomena had received little scholarly attention, since the bulk of studies on organized routine focused on industrial production. Well before Taylor's time-motion studies became the popular face of scientific management, the energetics and temporality of manual labor had been subject to extensive research by the turn of the twentieth century, a result of organizational studies in "military affairs and industrial production."[109] The routinization of decision-making processes, of information and communication—the lifeblood of administrations—however, had been comparatively neglected in both theory and empirical research. Despite the formally analogous structure of the equations for entropy and information, the energetics of socially organized labor and the informatics of socially organized communication were far from identical.[110]

Luhmann would even go so far as to claim that the preeminence of industrial research and scientific management had obstructed the progress of sociological research on routine because of their near-exclusive concern with repetition. But repetition, Luhmann observed, is a highly indeterminate category with respect to time: with what frequency and regularity must something be

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[104] Simon, *Models of Man*.

[105] Luhmann, *Recht und Automation*, 24–25.

[106] A sentiment most famously represented by the wearing of IBM punch cards and adoption of their instructions—"do not fold, spindle, or mutilate"—as a motto by Free Speech Movement protesters at the University of California, Berkeley in the early 1960's, to protest the dehumanizing "technocratic" reforms of Chancellor Clark Kerr, who they viewed as a paragon of elitist, technocratic systems analysis. See Fred Turner, *From Counterculture to Cyberculture: Stewart Brand, the Whole Earth Network, and the Rise of Digital Utopianism* (University of Chicago Press, 2010); Steven Lubar, "'Do Not Fold, Spindle or Mutilate': A Cultural History of the Punch Card," *The Journal of American Culture* 15, no. 4 (December 1992): 43–55; Clark Kerr, *Industrialism and Industrial Man* (New Jersey: Princeton, 1960).

[107] Niklas Luhmann, "Lob der Routine," in *Politische Planung* (VS Verlag für Sozialwissenschaften, Wiesbaden, 1971), 114.

[108] Luhmann, 113.

[109] Anson Rabinbach, *The Human Motor: Energy, Fatigue, and the Origins of Modernity* (New York: BasicBooks, 1990); Anson Rabinbach, *The Eclipse of the Utopias of Labor*, First edition, Forms of Living (New York: Fordham University Press, 2018).

[110] For a useful discussion of the interpretive history of their relationship, see Hayles, *Chaos Bound*, 31–60.

repeated for it to count as routine? Once an hour? Once a day? Once a month? Beyond the realm of manual labor, the answer was far from self-evident.[111]

Furthermore, like the concept of the will, models of routine derived from industrial production were rooted in psychological theories of individual decision and action, which tended to carry an implicit theoretical bias in favor of purposive models of rationality.[112] As with any instrumentalist conception of rationality, the purpose of routine action therefore became pegged to the formal criteria of efficiency and optimization. Most studies of routine accordingly analyzed its rational advantages as a function of the classical model of the division of labor: tasks are divided up, specialized and subjected to a uniform rhythm in order to save that valuable resource, time. But unlike the actions involved in manual labor, an individual's ability to repeat an identical decision endlessly is trivial.[113] The problem of repetition in decision-making requires something different: the ability to recognize in non-identical circumstances similarities that qualify as triggering the same *type* of decision.[114] Routine decisions thus require significant knowledge of the context in which the decision is being made, making it impossible to anticipate in advance every possible situation and lay it out in to sequential steps. In other words, routine decisions involve a kind of situational indeterminacy not found in manual labor.

Even more, routine serves very different functions in each domain. More than simply expediting individual tasks, routines facilitate communication and consistency within an organization. By creating explicit and intersubjectively recognizable standards they make it possible for each bureaucrat to recognize the same patterns in their environment, despite their individual differences, minimizing the appearance of arbitrariness. They also help maintain consistency across irregular intervals: the frequency of routine decisions depends not on some fixed standard, but on whether the environment "triggers" the program. In short, routines make repetition into a dependent variable with respect to both temporal and social variations.[115]

Routines do this by taking the form of decision programs. By regulating the flow of information at systems' boundaries, decision programs afford systems with a measure of independence from their environment. Every system manages its environmental relationships according to its own immanent criteria, ensuring that it is not strictly "controlled" by environmental disturbances. At the same time, no system can plausibly attempt master its environment once and for all. As Luhmann put it, "neither the incoming information, that is, the environmental occasion, nor the outgoing communication, that is, the environmental result or the goal, has absolute authority" over the behavior of the system. "Decision programs are chosen, rather, such that entries and exits are reciprocal viewpoints for selection for one another."[116] In other words, decision programs establish rules that pattern the relationship between a system's perceptions and its actions. The system "sees" its own effects on its environment, and "acts" in terms of what it sees. Such a reciprocal selectivity thereby imparts to the system a degree of "delimited freedom."[117]

Decision programs function above all to help prevent a kind of short-circuiting between inputs and outputs by allocating constancy to only one side at a time. Were a system to make both sides completely dependent upon one another, the resulting feedback loop between would cause an

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[111] Luhmann, "Lob der Routine," 115.
[112] Luhmann, 115.
[113] One reason for this, although Luhmann does not make this argument explicitly, is that, given that a decision is always a communication of information, its simple repetition does not actually communicate any information at all. It would be considered "redundant." See, Shannon, "A Mathematical Theory of Communication."
[114] Luhmann, "Lob der Routine," 116.
[115] Luhmann, 116.
[116] Luhmann, 117.
[117] Luhmann, 117.

interminable oscillation, blunting the system's environmental sensitivity to the point of solipsism. Decision programs work by inserting a non-arbitrary asymmetry to interrupt the cycle, fixing one side or the other. There are thus two and only two types of decision programs: one which fixes the input, allowing for the variation in output, and one which fixes the output, permitting it to vary its possible inputs.[118] The former Luhmann called *routine programs*. These make the system sensitive to determinate environmental stimuli, whose irregular occurrence triggers a prespecified decision. Because they take the form of a conditional ("if *x*, then *y*"), Luhmann would refer to them in all subsequent texts as *conditional* programs. These he contrasted with *purposive programs*. These basically amount to the means-end schema used to describe instrumental rationality. By fixing a system's output as a "purpose," such programs endow it with the capacity of *perception*: the ability to scan the environment for means appropriate to that goal, given environmental conditions, and to measure the environmental effects of its decisions through feedback.[119] In other words, purposive programs hold constant a certain class of effects incurred by its decisions (bring about *x*, and find the appropriate means *y* given the situation), while routine programs hold constant a specific class of effects of the environment on itself.

While both program types encourage systems' independence, they simultaneously multiply their environmental dependencies. This apparently paradoxical condition is possible because programs selectively allocate these dependencies and independencies across the three "meaning dimensions," objective [*sachlich*], temporal, and social. By making one dimension of a system's boundary relatively invariable (that is, independent of environmental fluctuation), programs force systems to depend on their environments in another dimension. Routine programs, for example, don't specify when or how often some action or decision is to take place, only that it is to take place should some other event in its environment occur first. They allow the system an "indifference to time," but increase its dependency on "objective" fluctuations in the environment.[120] A system's sensitivity to one feature of the environment is thus a function of its highly structured *insensitivity* to everything else. In other words, a decision program is a highly selective filter for insulating the system from the infinite number of possible environmental disturbances, admitting only that information which accords with its "relevance structure." By way of routine programs, "the system translates irregularity into regularity."[121] And finally, by procuring this modicum of recognizable consistency, programs provide an anchor for coordinate the interactions between members of an organization. Hence, as such "a coordinating arrangement," routines serve "as a practical solution to the contradiction of system autonomy and interdependence."[122]

Every organized social system, in turn, consists of multiple interlocking levels of different program types, which are not only situated in parallel to one another, but are "nested" in complex hierarchical schemes.[123] Routines, for instance, are "programmed" according to some purpose, even though this purpose may not directly factor into the routine decision-making process. Conversely, in carrying out such a routine decision, an administrative process may include 'subroutines' oriented by purposes: in order to make a decision regarding a petition for compensation, an administration may delegate the task of auditing the provided information to a separate department. While the decision is made according to the criteria of a routine program ("if x, then y"), the program for auditing might simply take the form of "discover errors or misstatements," leaving open the means for doing

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[118] Technically he had referred to a similar idea in 1960, though he seemed dismissive of it at the time. Luhmann, "Kann die Verwaltung wirtschaftlich handeln?"
[119] Luhmann, "Lob der Routine," 118.
[120] Luhmann, 118.
[121] Luhmann, 119.
[122] Luhmann, 120.
[123] Luhmann, 121.

so. Like the separation of "meaning dimensions," such a "nesting" of program levels thereby enables a system to increase its requisite variety, because each program level manages a different environment than its neighbors. In this way "routine programming simultaneously affords a high measure of differentiation and interdependence, in which each system conditionally orients itself to events in other systems, without infringing upon their freedom to determine the consequences and functions of their events."[124] In other words, routines reinforce the system's *selective autonomy*.

With the concept of the decision program, what had for Carl Schmitt been the purest expression of voluntarism thus became for Luhmann a moment in a higher automatism. "This definition of sovereignty" as "he who decides on the exception," Schmitt explicitly declared, "must therefore be associated with a borderline case and not with routine."[125] But at the same time, what could easily appear to detractors as a technocratic 'automaton theory of organized decision-making' aimed, in fact, to establish something much closer to the selectivity-empowered theory of consciousness William James had advanced against the "automaton theory of mind:" a theory that very nearly equated the rationality of systems with their *autonomy*.

» 7. Programming the Public Administration «
Positive Law and the Reduction of Complexity

i. The Selective Affinity of Law and Automation

Well before the possibility of computerized automation of legal procedure became a reality, European conceptions of law were already caught up in the evolution of models of rationality that would find expression/participate in the computer revolutions of the twentieth century. Law and automation, in other words, had a selective affinity. As described in Chapter Six, legal positivism had aimed to construe law as a perfectly rationalized, closed system, from which every principle could be logically deduced from another. Working under the new paradigm of "objectivity" rapidly overtaking the natural sciences, they assumed that such a closed system would promote generality and impartiality by eliminating the indeterminacy that would otherwise allow for the free roam of subjective discretion.[126] Ensuring the impartiality of judges thus depended on the possibility of rendering their decisions fully predictable by banishing the arbitrariness of their subjective wills. Hence, by appealing to "universal criteria," legal decisions aim "*to neutralize the personality of the decider as a codetermining factor*."[127] If every judge following the same procedure were supposed to arrive at the same result, the particularity of the will would have to be completely subordinated to the generality of rules. The codification of such procedures thus strove to attain a rational ideal which mirrored what mathematicians had since the seventeenth century called "algorithms." In other words, laws

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[124] Luhmann, 120.

[125] Schmitt, *Political Theology*, 5.

[126] This idea of objectivity as impartiality and uniformity driven by process of standardization in bureaucratic, legal and scientific domains has been a central plank in Anglo-American history of science for several decades., Theodore M. Porter, *Trust in Numbers: The Pursuit of Objectivity in Science and Public Life* (Princeton, N.J: Princeton University Press, 1995) In general, Porter's account of the rise of quantification as the preeminent form of legitimate objectivity squares with Luhmann's sociological account of the impartiality of law; for an alternative account of the rise of objectivity, see Lorraine Daston and Peter Galison, *Objectivity* (New York: Zone Books, 2007); On the common context between the emergence of demands for juridical equality and the standardization of measures, see also Witold Kula, *Measures and Men* (Princeton, N.J: Princeton University Press, 1986). I will return to these intertwined problems of " procedural legitimacy" in Chapter 8.

[127] Luhmann, *Recht und Automation*, 43.

assumed the algorithmic structure of conditional programs.[128] No wonder Weber had described "the modern judge" in rational-bureaucratic legal orders as an "automaton."

Unlike purposive programs, which help systems intervene in the environment to achieve *specific* outcomes, conditional programs afford many of the precise qualities demanded of positive law in the *Rechtsstaat*. As proponents of automation had insisted, "The principle of equality [before the law] and the principle of legal consistency [*Gesetzmäßigkeit*] of the administration converge… with the uniformity of procedure, as electronic data processing presupposes it."[129] Such principles were uniquely compatible with the conditional program form. By making each legal decision depend only on system-internal criteria, and not the particularities of an ever-shifting environment, conditional programs increase the expectation that decisions will be made consistently.[130] In Luhmann's words, "the function of law for administrative systems consists in *transforming external environmental challenges and conditions of existence* […] *into internal decision premises*, which are strictly respected within the system."[131] Positive law is not externally imposed upon the administration, "but [is] rather its own structural law."[132] As such, legal programs thus provide administrations with decision premises that function as "viewpoints" for "selecting and processing information," that is, for regulating their boundaries.[133] And because systems "perceive" their environment in terms of the structure of their self-drawn boundary with it, every selective perception simultaneously constitutes an act of existential self-preservation and self-assertion. In other words, as a medium of both perception and action, positive law in the *Rechtsstaat* had thus become an "essential component of administrative systems" and a "basis of the autonomy of the state bureaucracy."[134] It provides the administration with highly generalized schemas for selecting which environmental stimuli to perceive, and for using the information derived therefrom to make decisions that, in turn, affect the environment, creating a "homeostatic" feedback loop.

Homeostatics and the cybernetic theory of "servomechanisms," however, had emphasized only *one kind* of environmental complexity, prioritizing the temporal over objective variety. They worked by breaking up objective complexity into a sequence of discrete steps.[135] Hence, like decisionists and rational choice theorists, cybernetics also regularly underestimated the quantity of already reduced environmental complexity managed by its machines. But the sociological theory of functional differentiation had recognized as well the importance of variety in the objective and social dimensions. Systems differentiate, in other words, not only in order to become stable in the face of *fluctuating* environments, but also to simultaneously handle *multiple* environments. In helping the administrative system draw its boundaries, for example, legal norms contend not only with a single unpredictable environment, but with many: they "serve as a coordinating generalization with respect to the plurality of environments."[136] The more generalized they become, the greater the variety of environments for which laws can offer a predictable structure to coordinate interactions: the public in a liberal democracy, for example, should be able to expect that administrative actions treat it with

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[128] As he put it already in "In Praise of Routine," "it is of decisive importance for the public administration that its programs are fixed more and more in the form of law." Luhmann, "Lob der Routine," 133.
[129] Luhmann, *Recht und Automation*, 45.
[130] Luhmann, 23.
[131] Luhmann, 24–25. This statement is nearly identical to Luhmann's description of the affordances of functional differentiation in the programmatic essay, "Sociological Enlightenment," published the following year. The seemingly minor differences, namely, that the latter essay describes external challenges in the language of "world complexity," are instructive. I will return to this in a discussion of that text in Chapter Seven.
[132] Luhmann, 27.
[133] Luhmann, *Theorie der Verwaltungswissenschaft*, 84.
[134] Luhmann, *Recht und Automation*, 24.
[135] Luhmann, 49–50 fn 1.
[136] Luhmann, 25.

equity and consistency, and that elections will be free and fair. Consistent violations of these procedural expectations might threaten to undermine the legitimacy of the political system.

Even more, environments are not only multiple. They sometimes mutually contradict one another, saddling systems with simultaneously irreconcilable demands. The public might demand policies that conflict with the imperatives of the economic system; and the public itself will regularly pose irreconcilable demands on its government. A cybernetic servomechanical system can only deal with such "objective" problems by translating them into "temporal" problems: whenever confronted by several challenges of equal relevance, the solutions for which are mutually exclusive, a system can simply treat them sequentially. I can't give a lecture while getting my teeth cleaned, but I can still fulfill my academic duties and prevent tooth decay by lecturing in the morning and going to the dentist in the afternoon. But sometimes that's not good enough. Sometimes irreconcilable problems can't be resolved by deferral, but rather require immediate attention.

Highly complex systems thus evolved other means to deal with such objective and social dimensions of complexity.[137] The public administration is one such system. Programmed legal norms assist here as well, by enabling administrations "to pursue a differentiated strategy; namely, to simultaneously realize opposing tendencies."[138] To put it in language Luhmann also began to use in 1966 to describe the challenges of political planning, conditional programs enable administrations to behave "opportunistically" in navigating between irreconcilable demands emanating from the public, or between the public and their own personnel.[139]

But does such opportunism not threaten to contravene the fundamental principles of consistency and generality on which the *Rechtsstaat* is premised? In problems ranging from compensation law to "planning," Luhmann confessed, opportunistic strategies appeared to conflict with "programmatic" ones, by reintroducing the very arbitrariness the latter allegedly suppressed.[140] At the same time, both strategies also imply one another, just like both program types. Decision programs don't come from nowhere, but need to be "programmed." In other words, laws are legislated. In what Luhmann called "political planning," politics "programs" the administration by creating the conditional programs—laws—that serve a specific political purpose.

Yet would not such a distinction run afoul of the same problems faced by the legal positivists' insistence on the absolute separation of legislation and application—namely, that indeterminacy diagnosed in Weimar by Schmitt, Heller, Mannheim and others? In the wake of such critiques had become commonplace among contemporary jurists to recognize that legislation and the administrative application of the law could never be differentiated with any finality. Everyday legal decisions continuously reshape legal norms in ways completely unforeseen in the original laws according to which they were made. And this posed the same challenge to the theory of decision programs: when does a decision count as programmed, and when does it count as programming? How and when are programs to be changed? According to which decision premises? And are such premises "programmed" or not?[141] Even more, did not the idea that conditional programs

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[137] Luhmann, *Zweckbegriff und Systemrationalität*, 164.

[138] Luhmann, *Theorie der Verwaltungswissenschaft*, 86.

[139] Luhmann, "Politische Planung," 1966; Reprinted in the eponymous collected volume, Luhmann, "Politische Planung," 1971; This is another example of how conditional decision programs are "functionally equivalent" to purposes and purposive programs with respect to systems rationality. As Luhmann put it two years later, purposes also reduce the "complexity of the environment that is factually rich in contradictions to a simple, elastic formula that is capable of decisions." Luhmann, *Zweckbegriff und Systemrationalität*, 162.

[140] Niklas Luhmann, "Opportunismus und Programmatik in der öffentlichen Verwaltung," in *Politische Planung: Aufsätze zur Soziologie von Politik und Verwaltung*, 1971.

[141] Luhmann, "Politische Planung," 1971; Niklas Luhmann, "Reflexive Mechanismen," in *Soziologische Aufklärung 1: Aufsätze zur Theorie sozialer Systeme* (Wiesbaden: VS Verlag für Sozialwissenschaften, 2009).

"neutralize" the "personality of the decider" similarly ignore the empirical reality and necessity of "discretion" in judicial decision?

iii. Legal Indeterminacy

The "legal indeterminacy" that had catalyzed Carl Schmitt's decisionistic legal realism continued to haunt modern positive law. In the nineteenth-century German jurisprudential tradition, this problem had appeared in form of the distinction between "personal discretion" and "legal indeterminacy," which, as discussed in Chapter Five, had become one of the central points of contention among German jurists during Weimar[142] and Bonn[143] (not to mention Anglo-American legal scholars!).[144] For Schmitt, recall, the legal indeterminacy arising from the practical impossibility of distinguishing legislation and application derived from the imperfect fit between legal systems and reality; thus only an extra- or "pre-legal" decision unconstrained by any programmed norm could "solve" this fundamental inadequacy of law.[145]

Luhmann viewed the problem differently. First of all, *every* decision is made and communicated according to decision premises, even if these are not always formally programmed laws. Without them, no coherent set of decision alternatives would ever be available, nor could the system receive it as a decision. The decision is never an ex nihilo irruption of pure spontaneity into an existing order, but at every stage depends upon some minimum of already achieved order. And second, far from a threat, indeterminacy must be understood as functionally fundamental: a feature, not a bug of positive law. The opposition between a deterministic normative order and an undetermined voluntarism was a false one. Organization is unthinkable without indeterminacy. Cybernetics provided Luhmann the analytical lens for demonstrating this.

In most texts from this period, including *Law and Automation*, Luhmann reserved his highest praise of cybernetics for its virtually unparalleled appreciation of the productive role of structural indeterminacy in facilitating the organization and preservation of systems. Whereas classical epistemology tended to see complexity as a "misfortune," cybernetics had been one of the only sciences to recognize it as an "achievement" of systems.[146] With his account of requisite variety, Ashby, above all, had demonstrated theoretically that order is not only compatible with

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142 William E. Scheuerman, "Legal Indeterminacy and the Origins of Nazi Legal Thought: The Case of Carl Schmitt," *History of Political Thought* 17, no. 4 (Winter 1996): 571; William E. Scheuerman, "After Legal Indeterminacy: Carl Schmitt and the National Socialist Legal Order, 1933-1936," *Cardozo Law Review* 19 (1998 1997): 1743–70; William E. Scheuerman, *Carl Schmitt: The End of Law* (Rowman & Littlefield, 1999); Juan Alberto Del Real Alcalá, "The Controversies about Legal Indeterminacy and the Thesis of the 'Norm as a Framework' in Kelsen," *European Journal of Legal Studies* 6 (2013): 174–88.

143 Luhmann, *Recht und Automation*, 39–40; Ernst K. Pakuscher, "The Use of Discretion in German Law," *The University of Chicago Law Review*, 1976, 94–109; Mahendra P. Singh, *German Administrative Law in Common Law Perspective* (Springer Science & Business Media, 2001).

144 There it centered around a debate between HLA Hart and Ronald Dworkin, which many liberal theorists have viewed as a "realist" affront to the concept of rule of law as advanced under the auspices of legal positivism, and which has been defended by the "Critical Legal Studies" movement. Ronald Dworkin, "No Right Answer," *New York University Law Review* 53 (1978): 1–32; Brian Bix, "Ronald Dworkin's Right Answer Thesis," in *Law, Language, and Legal Determinacy* (Clarendon Press, 1995); Lawrence Solum, "On the Indeterminacy Crisis: Critiquing Critical Dogma," *University of Chicago Law Review* 54, no. 2 (March 1, 1987); N. Otakpor, "On Indeterminacy in Law," *Journal of African Law* 32, no. 1 (1988): 112–21; J. Stuart Russell, "The Critical Legal Studies Challenge to Contemporary Mainstream Legal Philosophy," *Ottawa Law Review* 18 (1986): 1–24; Brian Leiter, "Legal Indeterminacy," *Legal Theory* 1, no. 4 (December 1995): 481–92; Martti Koskenniemi, *From Apology to Utopia: The Structure of International Legal Argument* (Cambridge University Press, 2006).

145 Scheuerman, "Legal Indeterminacy and the Origins of Nazi Legal Thought"; Scheuerman, *Carl Schmitt*; Dyzenhaus, *Legality and Legitimacy*.

146 Luhmann, "Soziologie des politischen Systems," 202.

indeterminacy, but actually requires it.[147] *Law and Automation* followed suit, explicitly equating indeterminacy with Ashby's "variety." Systems with low variety could adapt to only very restricted environmental fluctuations. But indeterminacy was also required for the system to be able to control when and where it reacts to environmental complexity.[148] A deterministic system will respond in one way and one way only when confronted by specific environmental disturbances. Systems with indeterminacy built into their structures, by contrast, can retain multiple possibilities of action.

Combined with the program concept, the cybernetic notion of variety shed light on the forms of indeterminacy involved in law, which jurists only weakly grasped. For one, it could better differentiate between "legal indeterminacy" and "subjective discretion."[149] "Discretionary norms" explicitly leave it up to the official to decide how to respond to certain situations, for example, where an official is instructed to act with respect to the "public interest." Because they thereby leave open "alternative actions," discretionary norms belong to the purview of purposive programs. As such, they present severe limitations to attempts to fix them in law.[150] The indeterminacy of legal concepts, by contrast, involves the ambiguity of the "inputs" to the system rather than its outputs. Here what is indeterminate is not how to act in a given situation, but whether or not an environmental event "counts" as a trigger: in other words, whether nor not a "case" falls under a general law. And this aspect of conditional programs requires non-trivial interpretive effort, especially when the law becomes increasingly generalized, as is increasingly necessary as society becomes more complex.[151] The structural advantages of legal generalization in a system of positive law are thus purchased at the cost of increasing the risk that harmful or arbitrary decisions will be made. But such a risk does not, as Schmitt assumed, undermine the function of automaticity of law, leaving it to the arbitrary whims of "he who decides." Perhaps it simply implied that such risk demanded an alternative rationality no longer shackled to the opposition of automatism and voluntarism.

But could this 'other rationality' be found in machines? Luhmann was skeptical, to say the least. The observation that both computers and jurists used conditional programs to make decisions did not amount to their functional equivalence. Robust as it may appear, the "concordance [*Übereinstimmung*] between law and automation in the basic form of the decision program," Luhmann warned, "should not be overestimated."[152] And indeterminacy still remained the key to this difference. "The juristic contribution to decision," Luhmann would demonstrate, "is rational precisely at the point where it is no longer meaningful to automate it."[153]

» 7. The Shape of Decisions «
The Comparative Advantage of Humans and Machines

While Ashby and Simon had begun to design cybernetic machine-systems with indeterminacy built into their structures, such devices were still rudimentary, cost-prohibitive, and above all, mostly hypothetical. Only the most recent advances in machine learning and neural network design have begun to bring some of their insights to fruition. By contrast, the "electronic data processors" and

[147] Luhmann, *Recht und Automation*, 52–53 fn. 5.
[148] Downplaying the quantitative connotations of requisite variety, Luhmann translated it in a footnote as "erforderlichen Unbestimmtheit." Luhmann, 61. Later texts would usually refer to it in the English original.
[149] The difference between two program types "sheds light on the distinction between 'discretionary' norms and 'indeterminate legal concepts,' which the recent dogmatics of general administrative law has certainly chiseled out, but cannot explain." Luhmann, 39 fn. 13.
[150] Luhmann, 40.
[151] Luhmann, "Lob der Routine," 123.
[152] Luhmann, *Recht und Automation*, 45.
[153] Luhmann, 60.

"logic machines" infiltrating mid-century bureaucracies, and which share the same basic architecture with most modern computers, hardly resembled such cybernetic machines, precisely because "they are fully determined."[154] Were a law able to specify in advance the single, unequivocally correct answer to every possible case put before the administration, as positivists hoped, the rationality of every legal decision would then consist in nothing more than the tautological deduction of the answer through a series of inferences from the law to the case and back to the law.[155] This procedure could then be easily translated into the linear programs of computers.[156] But in reality, such computers "would simply remain idle should one desire to feed them unprepared juristic problems," because such problems involved types of complexity for which the computer was not suited. And so the very failure of these "logic machines" performed the greatest service: it forced sociologists to account for the *specific* logic and function of the juristic decision.[157]

Although he had chided jurists for the metaphysical prejudices grounding their hostility to automation, Luhmann conceded that their defensiveness may not have been entirely unjustified—and not only because they feared unemployment. Against the proponents of automation, who heard in the jurists' tortured appeals to the ineffable dimensions of juristic decision nothing but self-interest clothed in anachronistic metaphysics, Luhmann countered that the more "obscure passages [*dunkle Stellen*] of juristic argumentation are not sufficiently explained as a protective fog [*schützende Einnebelung*]." Rather, they reflected the fact that "the indeterminacy of structure and system-internal directives to reduce indeterminacy are *important constructive features of a system that must preserve itself in a highly complex environment*."[158] To be sure, jurists would not have thought to describe the machines looming on their horizons as lacking in "requisite variety." The very obscurity of their argumentation, however, provided a clue, reflecting a latent sociological function of which they were not entirely conscious. An undue emphasis on the individual logic of decision, one to which modern decision theories were also captive, had persuaded both jurists and automators to ignore the *social* and therefore *communicative* function of administrative decisions. In short, they had been blind to the full *complexity of complexity*.

Insofar as humans and computers both make complexity-reducing decisions, they can be compared in terms of the selectivity they use to do so. But—with the partial exception of Simon—the proponents of automation, Artificial Intelligence, and not least, rational choice theory, had severely underestimated the "world complexity" that confronted social systems, and so overlooked the manifold selective achievements each had to perform before a simple decision could take place.[159] As Ashby once put it with respect to the shortcomings of first generation Artificial

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[154] Luhmann, 52–53 fn. 5.

[155] Luhmann, 56.

[156] Although, explicitly citing Simon's work on heuristic decision-making machines, Luhmann admitted that computers may come to play a greater role in absorbing uncertainty, he argued that, at present, their structural constraints in processing information had circumscribed their function to those stages of decision-making in which indeterminacy was not implicated. Luhmann, 59 fn 24.

[157] Luhmann, 28.

[158] Luhmann, 52.

[159] Here Luhmann anticipated an argument put forth by sociologist of science Harry Collins in the 1980's. According to Collins, it is not only because humans are embodied and have a "world" that machines can't do what humans do, as Hubert Dreyfus had argued in his critique of first generation AI; but that, machines, like humans, operate upon a world that is already drastically simplified by society. This was not simply a version of the argument that we inherit our ideas about the world from other through some process of "transmission." Rather, Collins' claim was that even human consciousness could only encounter a world insofar as patterns of social organization had already endowed it with an intelligible structure. In other words, despite their relatively simple logical architecture, digital computers owed their seemingly dazzling processing power to the fact that they had been designed to participate in already highly structured, *determinate* social processes. Implicitly revising Gehlen, Collins argued that artificial intelligence is best understood not as

Intelligence, "we have hitherto quite mis-estimated the quantitites [sic] of information that go respectively to the computer and to the human being before they start their selective processes."[160] In Luhmann's terms, computers' capacity to make decisions was only possible insofar as they operated in a world already made determinate and legible by socially organized selectivity.[161] This was not simply because humans or societies process "more" complexity than computers can, but above all because they process different *kinds* of complexity. That is, not all forms of complexity are created equal. To the contrary, Luhmann's world consisted of a variety of varieties, with which different kinds of "selectivity" are able to reckon more or less adequately. The most salient distinction between kinds of complexity was between the three meaning dimensions—objective, temporal, and social. Far from some brute, uniform processing power, selectivity is always plural and contextual.

At first, the differences between human and machine selectivity as Luhmann sketched them appear merely cognitive. Because of their linear and deterministic construction, machine programs can better process temporal than objective complexity. In other words, they depend on the fact that humans have already "temporalized" the objective forms of environmental complexity into a sequence that can be fed to a computer. And this, in turn, further presupposes that human societies have already learned to distinguish the (inner) temporality of experience from the (outer) objectivity of the real world.[162] Computers could not do any of these things because "they have a low tolerance for ambiguity."[163] They could merely process already simplified and arranged data *faster*. This means that the work of interpreting an undifferentiated world, and then schematizing it into the discrete temporal steps of an "if-then" program, had to be left to humans.

As described earlier, law as a conditional program also acts as a cognitive "schema,"[164] a generalized "expectation of that about which the system wants to inform itself,"[165] which helps the jurist scan the real world for cases to be fitted to existing legal precedent, much as for Kant, the schematisms make "determinative" judgments possible by connecting intuitions to concepts. The real difficulty appears, as it had for Kant, when the jurist confronts cases that don't appear to "fit" any extant concepts; when the indeterminacy of legal norms seems to require something "extra" in order to make a decision. But unlike Kant, Luhmann did not chalk up the jurist's unique ability to provide this "extra" to some "power of reflective judgment."[166] Lest one think that with this comparison between modes of selectivity Luhmann suddenly betrayed some repressed humanistic esteem for the uniqueness and spontaneity of human cognition, he insisted that this achievement was more social than it was cognitive in nature. The supplementary function of human-decision making is above all rhetorical, communicative, and performative.

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a *human* prosthesis, let alone an artificial brain, but a "social prosthesis." H. M. Collins, *Artificial Experts: Social Knowledge and Intelligent Machines* (Cambridge, Mass: MIT Press, 1990), 14.

160 Ashby, "Computers and Decision Making," 181.

161 The fact that the proper functioning of highly deterministic machines depend upon such a highly structured environment, Luhmann suggested, helped explain the difficulties with industrialization in developing countries. Luhmann, *Recht und Automation*, 61.

162 Luhmann, 49–50; Even the more complex neural net designed by Warren McCullogh could not differentiate time this way, but this, as Orit Halpern argues, they used to their advantage: "Put another way, from within a net (or network) the boundary between perception and cognition, the separation between interiority and exteriority, and the organization of causal time are indifferentiable. But rather than being a disadvantage for the capacity of a neural net, McCulloch and Pitt's brilliance was to see this as an advantage." *Beautiful Data*, 157.

163 Luhmann, *Recht und Automation*, 60.

164 Luhmann, 52.

165 Jurists, Luhmann noted, already recognized this as the "selective function of legal concepts." Luhmann, 67 fn 17.

166 Immanuel Kant, *Critique of the Power of Judgment*, ed. Paul Guyer, trans. Paul Guyer and Eric Matthews (Cambridge: Cambridge University Press, 2000); Howard Caygill, *Art of Judgement* (Oxford: Blackwell, 1989).

Donning his sociologist's cap, Luhmann proposed to describe the function of the jurist in the public administration as one of *uncertainty absorption*.[167] Another term borrowed from Simon and March's *Organizations*, "uncertainty absorption" expresses how organizational decisions transform unorganized, raw data into a set of simplified inferences that can be easily communicated to other parts of a system, where they become available as premises for further decision-making. Because the original data is excluded for the sake of organizational efficiency, "the recipient of a communication is severely limited in his ability to judge its correctness," requiring a sustained degree of generalized *trust* in the competence of those responsible for the communication. Decisions reduce uncertainty to the degree that they are both supported by and reproduce this trust.[168]

In adapting the term "uncertainty absorption," Luhmann focused predominantly on its role in generating *normative accountability*. In public administrations, the function of "uncertainty absorption" assigned to jurists corresponded to the problem of legal indeterminacy: that jurists never decide exclusively according to strictly logical standards. But rather than abandoning the claim to rationality, however, Luhmann emphasized the work of a different *kind* of rationality.

Between the refinement of modern logic and the development of automatic logic machines, it had become "indisputable" that the rational contribution of jurists to the decision could not be reduced to the purely logical manipulation of symbols according to universal rules.[169] At the same time, jurists can't simply admit that their decision-making process could not have been automated, for that could expose them to the accusations of having made an arbitrary, "ungrounded" decision.[170] That explains why many jurists like Zeidler took recourse to obscure human qualities like the "will."[171] Since jurists' social role is defined by the expectation that they produce a decision *in every case* and that each decision will be justified by giving reasons, it would damage their professional reputation and credibility to refuse to decide in cases where the law provided insufficient information. Their rational contribution thus depends on their *rhetorical* ability to justify the correctness of the decision, despite the fact that such justifications are not *formally* logical.[172] Jurists must *portray* their process *as if* they had been guided solely by logical deduction from the law, such that their decision is not seen to alter the meaning of the law or to require any supplement.[173]

Along with establishing a primary functional difference between humans and machines, this "rhetorical rationality" also had the added benefit of permitting the sociologist to bracket the problem of the "psychological" process of decision-making, including both transcendental questions of the structure of human judgment and empirical questions of motivations.[174] The Kantian problem of reflective judgment could thus be left to philosophers, psychologists, and neuroscientists.

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[167] Luhmann, *Recht und Automation*, 56–57.

[168] James G. March and Herbert A. Simon, *Organizations* (New York: Wiley, 1958), 165.

[169] Luhmann, *Recht und Automation*, 54.

[170] As Theodore Porter puts it, according to contemporary ideals, "expertise should be mechanized and objectified. It should be grounded in specific techniques sanctioned by a body of specialists. Then mere judgment, with all its gaps and idiosyncrasies, seems almost to disappear." Porter, *Trust in Numbers*, 7; Witold Kula also offers an account of the common context of juridical equality and metrological standardization in *Measures and Men*.

[171] Luhmann, *Recht und Automation*, 59.

[172] Luhmann, 57.

[173] This also meant that Luhmann raised the bar for automating decisions in the future: even were machines to become capable of making decisions in the face of uncertainty, as in 2019, they by no means would perform the same rhetorical social function of reducing uncertainty. "Autonomic computing may create a situation in which smart computing environments decide what is reasonable, without them being capable of explaining their behaviours in terms of reasons, since their decisions are based on calculations and correlations." Mireille Hildebrandt and Antoinette Rouvroy, eds., *Law, Human Agency, and Autonomic Computing: The Philosophy of Law Meets the Philosophy of Technology* (Milton Park, Abingdon, Oxon ; New York, NY: Routledge, 2011), 6.

[174] Luhmann, *Recht und Automation*, 55.

By placing these respective contributions of humans and machines along a continuum of the "reduction of indeterminacy," Luhmann also exposed that the boundary between them is nevertheless always *variable*.[175] In short, the difference between humans and machines is not an ontological fracture in ethical will power, but an observable difference in *selectivity*. Some routine legal decisions could be made algorithmically, and perhaps computers would someday attain the ability to manage ambiguity like humans. But for the moment, their differences were manifest, and could be relatively formalized into a simple division of labor based on their respective selectivities.

Luhmann thus provided criteria for delineating the comparative advantage of automation in public administration. Unable to handle uncertainty without this being first converted into quantitative expression of probability, computers are best suited to processing a version of indeterminacy pertaining to the more or less temporally random "*distribution* [Streuung] *of individual cases*" as they appear before the administration. In other words, they serve to manage the "irregularity" of environmental inputs through selective sorting techniques that determine the categories to which these cases belong; in other words, they can "*help the case find its premises*."[176] Focusing on the "correctness" of their decisions, by contrast, jurists find themselves preoccupied with outputs. To the degree it structurally distinguishes between the selectivity of these two sides, an administration can become more flexible, autonomous, and rational. By separating the process of selectively sorting inputs from the question of the correctness of the results of its decisions, each function can be independently rationalized in line with its "comparative advantage." Even more, jurists could thus be disburdened of the more dull and onerous of routine tasks, enabling their resources to be concentrated on that most difficult of functions to program: absorbing uncertainty.

But what did this absorption actually entail in social terms? Curiously, in demonstrating the comparative advantage of the human jurist, however, Luhmann revealed more clearly than ever the particular social risk to which they are exposed, one which, although it was no longer consequent on the existence of human will, swiftly reoccupied its original theological function: *responsibility*.

» 7. Algos and the Algorithm «
Human Responsibility as a "Moral Crumple Zone"

This absorption of uncertainty corresponds to the familiar concept of responsibility [*Verantwortung*], which Luhmann had already discussed at length in 1964 in *Functions and Consequences of Formal Organization*.[177] But unlike its conception in the "ethical tradition," responsibility could not be construed sociologically as a quality attributable to a concrete person on account of their free will. In fact, it is not a *quality* at all.[178] Rather, it designated the same asymmetry in the communication of information that defined the decision: "The decider" in an organization "passes on more information than he had received, and in this sense takes on responsibility."[179] Responsibility accrues to this moment of "more" (which, again, is produced paradoxically through reduction). In light of the distinction between the automatable and non-automatable juristic tasks, Luhmann predicted that only humans, for the foreseeable future, were able to fill the function of absorbing uncertainty, and

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[175] Luhmann, 59.
[176] Luhmann, 63.
[177] *Funktionen und Folgen formaler Organisation* (Berlin: Duncker & Humblot, 1964), 172–89. See my discussion in Chapter 4.
[178] For an influential alternative account, which retains a naturalistic emphasis on human agency while actively combatting the individualism of other forms of voluntaristic social theory, see Barry Barnes, *Understanding Agency: Social Theory and Responsible Action* (London ; Thousand Oaks, Calif: Sage, 2000).
[179] Luhmann, *Theorie der Verwaltungswissenschaft*, 69.

therefore taking responsibility. Not because they have a "will," but rather because their rhetorical abilities to manage legal indeterminacy had few, if any, viable equivalents on the horizon.[180]

"Responsibility" was not only Luhmann's name for the uncertainty reduction performed by the jurists' rhetorical maneuver or the general indeterminacy reduction involved in every decision. It figures as one possible technique for handling that class of system problems called "errors" [*Fehler*], some, but not all of which might arise from the jurist's rhetorical leap. Concern for errors had naturally been the focus of the automation debates, because of the not entirely tendentious concern that the lack of conscious human oversight could rapidly lead to the proliferation of errors, which might go unnoticed until the damage had already been done. In order to justify partial automation, Luhmann needed to establish that, with respect to errors, automation would be of only minimal consequence for the administration's political and public environments. Only its members, belonging to its internal environment, he argued, would experience any substantial effects arising from automation. Automation undoubtedly implicated and complicated the problem of responsibility for errors. But since West German administrative legal doctrine still operated with a relatively crude understanding of this problem, future reforms would first require a sociological clarification of their meaning.

The problem with errors, functionally speaking, is not that they violate some alleged sanctity of the law, but that they can imperil the difference between the administration and its environments that positive law helped to maintain. Unaddressed, they threaten to undermine the predictability and consistency of law. But even attempts to fix errors can corrode system boundaries. This means that, in the right circumstances, errors can provoke veritable existential crises: if the boundaries that constitute a system's identity are thrown into question, "everything appears possible […], the system as a whole is implicated."[181] For this very reason the entire system must also be "cleansed/purified [*gereinigt*] and reproduced though a ritual sacrifice, through technical isolation or causal explanation of the error, through a gesture of apology, or some other means."[182] Briefly and more prosaically: every administrative system must have available a variety of means for "processing errors" [*Fehlerabwicklung*]. Most involve managing the expectations of those in its environments. Since the latter are multiple, so must be its methods. To remain autonomous, administrations therefore preside over a requisite variety of auxiliary "error-processing" techniques.

The simplest technique is simply to call them errors. Even before administrations apportion responsibility, simply classifying a "normative deviation" as an "error" already serves an important function. It allows the administration to nip in the bud any potential allegation that a deviant decision resulted from inadequate legal norms, because such a claim would imply the need for a "political" intervention into the legal structure of the administration. Hence, classifying deviations as errors insulates the administration against attempts to "politicize" it and thus collapse the boundary between administration and politics—or at the very least, it raises the threshold for doing so.[183]

Once an error is identified as such, however, something or someone must naturally be made to account for it. Just as the rational contribution that makes the jurist responsible is rhetorical and performative, responsibility provides the administration one among several techniques for managing its environmental relationships. Without someone to take the fall, administrations risk forfeiting their legitimacy, and, thereby, their autonomy.

Responsibility traditionally devolves upon someone who can be said to have "caused" the error. But, of course, the functional account of system autonomy had also made clear the secondary

[180] Luhmann, *Recht und Automation*, 71.
[181] Luhmann, 75.
[182] Luhmann, 76.
[183] Luhmann, 76.

and artificial status of all causal ascriptions. No longer could errors be made "a matter of pure causality."[184] Additionally, along with the contingency (Luhmann did not yet use the word) of causal ascriptions of responsibility, an increasing sociological awareness of the "social structural conditions of disappointing, deviant behavior" had fostered what Luhmann perceived as a "growing criticism of the rationalistic, individual-ethical overburdening of the individual person."[185] In short, it was simply no longer possible to make "an unequivocal assertion and ascription of guilt."[186] But the more often this is recognized, the more often it leaves "behind the impression that the error is not caused, or in any case just 'happens' to a specific culprit whose defense failed."[187]

On the one hand, this language belonged to that emerging trend among West German conservatives, especially the Gehlen-influenced Ritter School, to use *Kontingenzsinn* to defend themselves against the Left's demands that Germans reckon with their complicity with Nazism.[188] In one sense it elevated the famous "*Befehlsnotstand"* defense used by Nazi bureaucrats at Nuremburg to a philosophical and sociological register, while also reducing it to a case of the more humdrum difficulties of everyday life.

On the other hand, Luhmann would claim he was simply making an empirical observation, not a normative demand. Like all organizations, public administrations tend to 'circle the wagons' around embattled members more often than they select scapegoats. Officials need to be able to expect that they will not be 'thrown under the bus' for acting in accordance with the administration's formal expectations—that's a major advantage of formal expectations! But there are limits to performances of group solidarity. It is not in the interest of most organizations to act unpredictably and arbitrarily with regards to their environments. The public administration is, after all, responsible to a *public*. If its officials appear to violate the law without being held accountable, the law no longer functions as a generalized boundary condition to maintain the administration's autonomy. At best, in such situations, politics must intervene in the functions of the administration at the risk of "politicization;" at worst, such behavior simply corrodes the administration's credibility and legitimacy, such that its decisions are no longer accepted as "binding" by the public.[189] The administration thus seems to be faced with a difficult choice whenever something goes wrong.

Fortunately for the administration, functional differentiation partially alleviates the burden of this decision. Administrations don't have to respond to a problem the same way internally as externally. For example, it can financially compensate citizens for damages incurred by its acts without necessarily having to discipline any individual member for making a mistake. In other words, because they have multiple environmental boundaries, administrations can have their cake and eat it too: they can hold a member internally responsible, but also protect them from exposure to public scorn at the same time. The "fault" [*Verschulden*] of officials belongs among the internal problems of "motivating" personnel to avoid errors, and is therefore distinct from the external problem of taking public responsibility for mistakes.[190] Each boundary can be independently rationalized according to their respective imperatives. And so the point, for Luhmann, was not to

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[184] Luhmann, 103.
[185] Luhmann, 78.
[186] Luhmann, 104–5.
[187] Luhmann, 103.
[188] See, in addition to my discussion in Chapter One, Odo Marquard, "Unburdenings: Theodicy Motives in Modern Philosophy," in *In Defense of the Accidental*, trans. Robert M. Wallace (New York: Oxford University Press, 1991).
[189] In such circumstances, "the case would take on the tendency, *to become a political issue* [Politikum] *as an single case*, which means, transgressing the structural boundary between the public and politics." Luhmann, *Recht und Automation*, 79.
[190] Luhmann, 86.

critique norms of liability for errors as such, but to give them "a fashioning that is appropriate to the work tasks and the motivation problems of the member boundary."[191]

German administrative law in particular, Luhmann charged, failed to recognize these differences.[192] The automation debate thus provided an occasion to propose reforms, namely, to institutionally recognize the differences between the administration's environments in processing errors. Such refinement would allow the administration to specify how it handled errors where automation posed the greatest challenges: among its personnel. That is, of greatest concern was the question of how responsibility for errors should be distributed between jurists and those working directly with machines.[193]

Once again, Luhmann classified the crucial differences between administrative responsibilities in terms how they handled complexity at their respective environmental boundaries. The resulting classification involved distinctions that are difficult to translate into English, because each term is usually simply handled as synonyms for "responsibility" or "accountability." Whereas "responsibility" [*Verantwortung*] occurs whenever uncertainty a system absorbs uncertainty by producing decisions, "accountability" [*Verantwortlichkeit*], by contrast, describes the more specific institutional formalization of the conditions of "obligation to account [*Rechenschaftspflicht*] for errors,"[194] which would also make it possible to hold them "liable for errors" [*Fehlerhaftung*]. The former is concerned primarily with the "correctness of decisions" as an output, while the latter increasingly devolves onto those tasked with managing the inputs to the decision. Consequently, jurists will bear responsibility, while those who work with machines are exposed to accountability.

Due to the nature of their decisions, it is especially difficult to hold administrative jurists accountable. The more decision-making becomes differentiated through automation, the more are jurists "disburdened" of making purely logical, algorithmic decisions, and the more do they specialize in the rational selectivity of juristic rhetoric. And it is far easier to detect and declare the presence of an "error" in a process of logical deduction and assign "unequivocal accountability," than in a rhetorical performance that manages the "grey zone" of legal indeterminacy,[195] because the criteria for the correctness of the latter cannot be formalized into a "compulsory task" [*Pflichtaufgabe*].[196] So while jurists partake in the administration's responsibility for reducing uncertainty, they can be held accountable only under very specific circumstances. (For this reason, judges in the German judiciary are also generally not held accountable for errors.)

Problems that could be unequivocally identified as errors, by contrast, would increasingly come to fall under the purview of those operating the data-processing machines, which, as automation progressed, these "manual" tasks would essentially reduce to either planning the system or dealing with exceptions These could involve the program designers, the legal specialists who guide them, and the card-punchers [*Locherin*] who literally "programmed" the computers[197] by translating analog data into the binary language of machines by punching holes in card-stock.[198] In this realm it is much simpler to detect the existence an error.[199]

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[191] Luhmann, 113.
[192] Luhmann, 112.
[193] Luhmann, 104–5.
[194] Luhmann, 105–6.
[195] Luhmann, 107.
[196] Luhmann, 105.
[197] Nathan L. Ensmenger, *The Computer Boys Take Over: Computers, Programmers, and the Politics of Technical Expertise* (Cambridge: MIT Press, 2012).
[198] Luhmann, *Recht und Automation*, 107–8.
[199] Luhmann, 108–9.

The risk to which data workers might be exposed was thus considerable. At the same time, Luhmann advised, since such data-entry errors were inevitable and numerous, there was no sense in disciplining personnel for every discovered error. Not only would such punitive action be a poor motivator, it would require substantial conscious oversight to locate them, which, as an "irrational expansion of horizons," would forfeit the very advantages of automation. Errors of the same kind would be repeated, no matter how much "care" officials took to avoid them. Such a "deindividualization of error," Luhmann concluded, simply belongs among the risks of selectivity.[200]

And so to avoid the potential for what one scholar has recently called "moral crumple zones," in which the development of automated systems like self-driving cars sometimes leaves the humans in the loop exposed to greater risk of accountability, Luhmann recommended that sanctions for errors related to automation be as limited and flexible as possible.[201] Transparent communication about the frequency of errors might work better than sanctions. For example, individuals or teams might be confronted with written statistical reports of the distribution of their errors, and only disciplined if their frequency was determined to be too far above average.[202]

But even here, automation did not yet seem to Luhmann to introduce anything radically new into the world. At most, it merely helped disclose tendencies already immanent to functionally differentiated societies. The intervention of autonomic—if not already autonomous—technological artifacts into everyday life in many respects represents no more than a continuation of the primordial historical automatism Blumenberg called "technification," and which Luhmann saw as the increasing autonomy of functional systems. In yet another dialectic of modernity, the development of autonomous systems, social and technological alike, challenged modern conceptions of autonomous and responsible selfhood only to the degree that they evolved along with them.[203]

The "facts" of world complexity and autonomous functional systems thus only intensified critiques of the liberal-legal model of individual responsibility. Luhmann was, after all, a contemporary of Foucault. One could no longer ignore the social contingency involved in holding another human being liable for the bad things in the world, if only because too many people have their hand in every action, and every action implies ever greater risk. Especially in organized decision-making processes, such risk had to be managed without individualized oversight: "Only the 'last hand'" to touch a decision "could bear this accountability, and it would not be organizationally meaningful for the most part, and would contradict the rationalization of the process of decision-making, if one granted it the necessary information and control times to do so."[204] When put in the context of his repeated and lengthy deliberations on the concepts of responsibility, will, and decision, it appears that selectivity furnished Luhmann with a means of defusing the theological-ethical "elective will." But while depriving this will of its metaphysical stature, his account of the

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[200] Luhmann, 110.

[201] M.C. Elish, "Moral Crumple Zones: Cautionary Tales in Human-Robot Interaction (WeRobot 2016)," *We Robot (SSRN Electronic Journal)*, March 20, 2016, http://dx.doi.org/10.2139/ssrn.2757236.

[202] Luhmann, *Recht und Automation*, 113. In other words, Luhmann dimly anticipated the possibility of the punitive surveillance powers that have become central to contemporary debates about the modern datafied workplace, a new Taylorism of the information age. Only unlike contemporary critics, it didn't seem to much bother him, because he didn't anticipate the increased granularity of modern data-driven surveillance techniques.

[203] Hildebrandt and Rouvroy, *Law, Human Agency, and Autonomic Computing*; Donna Haraway, "A Manifesto for Cyborgs: Science, Technology, and Socialist Feminism in the 1980s," in *The Haraway Reader* (New York: Routledge, 2003); Katherine Hayles, *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics* (Chicago, Ill: University of Chicago Press, 1999); Frank Pasquale, "The Algorithmic Self," *The Hedgehog Review* 17, no. 1 (Spring 2015), http://www.iasc-culture.org/THR/THR_article_2015_Spring_Pasquale.php; Meg Leta Jones, "The Right to a Human in the Loop: Political Constructions of Computer Automation and Personhood," *Social Studies of Science* 47, no. 2 (April 2017): 216–39.

[204] Luhmann, *Recht und Automation*, 115.

human capacity to "absorb" uncertainty ultimately amounted to a functionally reoccupation of the will's position in making the human being into a cosmic "moral crumple zone." Instead of immunizing the divine against the taint of sin, human responsibility now guarded society against the dangers of dedifferentiation.

» 8. Overcoming Nihilism through Selectivity « Towards a New Enlightenment

As if to counter the apparent deflationary conclusion that automation merely extended processes already underway, in his closing reflections Luhmann suddenly changed his tune, upping the ante by twice proclaiming the "revolutionary effects" of automation. But with this rhetorical maneuver, Luhmann did not really mean to claim that automation delivered something radically new into the world, or that it would fundamentally upend the organization of societies. Above all, he meant, rather, that it would force scientific thought to catch up with social reality.

So what was holding it back? Obviously, the grip of "ontological metaphysics" continued, in Luhmann's view, to restrain the progress of science and law. But with respect to questions of human action, agency, and responsibility, the major obstacle was one particular form of this metaphysics, which Luhmann called the "ethical tradition of thought." This tradition, in Luhmann's understanding, was rooted in the "old unity of *ratio*," which presupposed a homology in the structure of being between the true and the good, between "correct thought and right action."[205] Joining his theory of functional differentiation to a common intellectual-historical narrative, Luhmann thus posited that the historical dissolution of this teleological unity of nature involved the gradual separation of domains that had once found their higher unity in the idea of ethical reason.[206] This historical transformation, moreover, was coextensive with modern functional differentiation. And so as society differentiated and cultural value systems pluralized, ethics could no longer bear the weight of sustaining the unity of reason. The distinctions between true and false, legal and illegal, right and wrong, good and evil, in other words, were no longer isomorphic. Law, ethics, and truth were thus forced to part ways.[207]

A common refrain in the 1960's, powerfully articulated in Reinhart Koselleck's *Critique and Crisis*, centered the story of modernity on the separation of law and ethics through the replacement of natural law by positive law in the seventeenth and eighteenth centuries. This story also encompassed reactions to this development, including attempts made by Enlightenment philosophes to once again bridge this separation, rejoining law and ethics under the auspices of human reason. While Kant's critical turn consummated in theory a differentiation that had already occurred in practice, the Jacobin excesses of the French Revolution allegedly demonstrated that only disastrous consequences could follow any attempt to subordinate law to ethics, and both, in turn, to the cult of reason.[208]

Koselleck's Schmittian narrative aimed to challenge the postwar recrudescence of "precritical" demands to restore the unity and sovereignty of absolute values, whether grounded in universal reason or in the theologically-inspired concept of human dignity. Luhmann shared this

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[205] Luhmann, 138.

[206] Arthur O. Lovejoy, *The Great Chain of Being: A Study of the History of an Idea* (Cambridge, Mass.: Harvard University Press, 1936); Alexandre Koyre, *From the Closed World to the Infinite Universe* (Johns Hopkins University Press, 1957); Reinhart Koselleck, *Critique and Crisis: Enlightenment and the Pathogenesis of Modern Society* (Cambridge: The MIT Press, 1998).

[207] Luhmann, *Recht und Automation*, 137.

[208] Koselleck, *Critique and Crises.*

conception, but took it a step farther. Even those traditions which most explicitly disavowed ethics—namely, legal positivism, Schmitt's political decisionism, and rational choice theory—continued to stand under "the compulsion of this train of thought," insofar as they aimed to reconstitute the sovereignty of political decision or the unity of reason on the basis of human action.[209] From this perspective, decisionism and positivism were no more than 'abstract negations' of ethical humanism. After the collapse of natural teleology, this tradition interpreted action as irreducibly causal, purposive, and individual, culminating in that weakened ersatz for the teleological unity of reason, the so-called "purposive" or "instrumental" reason of the subject. But the catchall epithet of nihilism targeted precisely this apotheosis of a formal, valueless and eventually *technical* rationality long before it was levied against its decisionist critics. Under such conditions, no one was above reproach for nihilism.

Modern thought had thus been ambivalent, because it had so far proved unable to come to terms with its own meaning. The dawning recognition of the separation of the true, the good, and the legally permissible from their former unity had provoked "fears of nihilism"[210] ever since Jacobi's diatribes against Kant.[211] But the phenomena associated with nihilism were not only the result of the dissolution of their prior unity, "phantom pains in the wake of large-scale historical amputations," as Luhmann put it in the 1990's, but of the incompleteness of their differentiation.[212] That is, it was the compulsion to apply ethical modes of thought to differentiation, rather than differentiation itself, that provoked accusations of nihilism. So long as voluntarism and automatism were not seen for what they were—functionally equivalent ideologies for reducing complexity—each would continue to demand resistance to differentiation, *and* inspire charges of nihilism. A theory that accounted for the specific rationality of differentiation in terms of complexity, Luhmann suggested, might prove able, if not to overcome, then at least to circumvent the circular firing squad of modern nihilism.

Unlike Nietzsche, Weber, Schmitt, Husserl and Heidegger, Luhmann discovered a clue to overcoming the nihilistic antinomy in the domain they had reviled as especially complicit in the proliferation of modern nihilism: technology. In mistaking technology for an expression of instrumental reason, and this, in turn, for the essence of modern rationality, these thinkers—and in this respect Habermas belonged among them—simply failed to capture the meaning of both technology and rationality.[213] The "rational" advantages of automation, Luhmann argued, could no more be reduced to the instrumentalist economic logic of "cost-saving" than to the ethical criterion of "rightness" or the distinction between legal and illegal. Such, at least, had been the conclusion of *Law and Automation*. Beneath its more prosaic aims resided the ambition to secure a common context between law and automation, to be achieved not by dismissing, but by resurrecting their connection to the fallen idol of rationality.[214] To this end Luhmann landed upon the figures of the "selective

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[209] Luhmann, *Recht und Automation*, 139.

[210] Luhmann, 139.

[211] Frederick C. Beiser, *The Fate of Reason: German Philosophy from Kant to Fichte*, Reprint edition (Cambridge, Mass.: Harvard University Press, 1993); Michael Allen Gillespie, *Nihilism Before Nietzsche* (University of Chicago Press, 1996); Bernard Reginster, *The Affirmation of Life Nietzsche on Overcoming Nihilism* (Cambridge, Mass.: Harvard University Press, 2008).

[212] Niklas Luhmann, *A Systems Theory of Religion*, ed. Andre Kieserling, trans. David Brenner and Adrian Hermann (Stanford, California: Stanford University Press, 2013), 20.

[213] Jürgen Habermas, "Technology and Science as 'Ideology,'" in *Toward a Rational Society; Student Protest, Science, and Politics*, trans. Jeremy J. Shapiro (Boston: Beacon Press, 1970); Heidegger, *The Question Concerning Technology, and Other Essays*; Cathryn Carson, "Science as Instrumental Reason: Heidegger, Habermas, Heisenberg," *Continental Philosophy Review* 42, no. 4 (March 2010): 483–509.

[214] It is "with respect to the 'difficult' situation" of complex environments that the general function of law for the administrative system is determined—and determined in a way that works with the basic concepts of system and

reduction of complexity" or "indeterminacy" as such a common denominator of these multiple rationalities. In its narrower specification as the "reduction of uncertainty," selective systems rationality encompassed even the rationality of the formerly ethical concept of responsibility.

It was therefore all the more crucial that this concept of indeterminacy be inoculated against the possibility of relapsing into the ontological-ethical patterns of thought from which it originated. Here Luhmann referenced Heidegger's interpretation of Kant's reconstruction of the ancient form/matter distinction as the "determination of the determinable." Heidegger found Kant's conception to be complicit with modern ideas of reason as *Technik*: in compliance with the basic presuppositions of "ontological metaphysics," the giving of form to matter, not least in its abstraction into the "determination of the determinable," simply represented another schema by which "being becomes actual as a being [*wird Sein als Seindes wirklich*]." So long as one continued to presuppose the univocity of being (being as identity, as the exclusion of non-being), truth as well as moral rightness became no more than cases of *poiesis* or "production [*Herstellung*]" guided by *techne*. In the formal compulsion to produce, Heidegger detected a latent ethical imperative: in Luhmann's words, the ontological "requirement that true actuality be given to being present[ed] itself to humanity as the knowledge of the good, towards which humanity ought to strive."[215] But while Luhmann agreed with Heidegger that Kant's assimilation of the language of determination to the form/matter distinction remained ethical and ontological, he disagreed with his assumption that Kant's concept of determination captured its meaning in the realm of information technology. The post-ontological cybernetic concept of indeterminacy had simply been unavailable to Heidegger—which may also explain his misunderstanding of cybernetics.[216]

Understood post-ontologically and functionally as a systems concept, and unmoored from the ethical doctrine of action, the idea of the selective reduction of indeterminacy therefore promised to yield a new "interpretation of being and time."[217] This audacious claim is what Luhmann ultimately had in mind when he wrote that "[t]he revolutionary effect of administrative automation will depart from these presuppositions and implications of thought," and that automation would therefore "alter the graspable potential for complexity in systems and revolutionize the forms in which complexity is worked though."[218] The "selective" reduction of complexity brought to light by cybernetics and automation, in other words, became Luhmann's version of what Habermas would later call the "unity of reason in the diversity of its voices."[219]

So with the idea of the "reduction of complexity," did Luhmann not therefore betray a continuing fealty to the Enlightenment he seemed so desperate to overcome? After all, not only did he aim to recover the viability of reason in the form of selective rationality, he also pegged the latter to the Enlightenment's premier value, *autonomy*. Of course, his was not the autonomy of human individuals, but of systems. But we must still wonder why Luhmann self-consciously opted to retain rather than discard such a fraught term—and whether or not his reconstruction of an idea of rational autonomy retained any significant connection to its Enlightenment predecessor.[220]

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decision and therefore applies a conceptual schema which simultaneously underpins thinking about rationalization and automation." Luhmann, *Recht und Automation*, 22–23.

[215] Luhmann, 139.

[216] Jean-Pierre Dupuy, *On the Origins of Cognitive Science: The Mechanization of the Mind*, A Bradford Book (Cambridge, Mass: MIT Press, 2009).

[217] Luhmann, *Recht und Automation*, 140.

[218] Luhmann, 141.

[219] Jürgen Habermas, *Postmetaphysical Thinking*, trans. William Mark Hohengarten (Cambridge, Mass.: The MIT Press, 1994); Martin Jay, *Reason after Its Eclipse: On Late Critical Theory* (Madison, Wisconsin: The University of Wisconsin Press, 2016).

[220] It may be objected that describing organizations as autonomous was not uncommon among systems theorists at the time. See, for example, the linking of selectivity and autonomy in Churchman, Ackoff, and Arnoff, *Introduction to*

In fact, in distinguishing his concept of autonomy, Luhmann deliberately invoked the very terminology Kant developed for the same purpose. Most obviously, he contrasted the autonomous freedom of systems with the mere capacity for arbitrary and subjective choice between alternatives [*Willkür*]: "Systems autonomy does not mean, however, *Willkür*, and certainly not the personally motivated *Willkür* of members of the system."[221] And even more than Kant's transcendental-empirical distinction, Luhmann made this autonomy independent of causal processes: "Autonomy only implies that the actions of the environment don't break into the system purely causally [*nicht ungebrochen und rein kausalgezetzlich in das System hineinwirken*], but rather are filtered at the system's boundaries, are subordinated to selective, transformational and abstractive treatment and thereby additional moments of meaning and effects are obtained, which are not completely determined from outside."[222] Or more laconically: "Autonomy is not to be grasped in causal categories as causeless spontaneity, but rather only system-structurally, as self-programming."[223]

With this latter clarification of autonomy as "self-programming," Luhmann also resisted the potential suspicion that his social systems counted as merely "auto*nomic*," rather than truly "auto*nomous*."[224] As "self-programming," Luhmann's systems embodied autonomous freedom in its most literal Rousseauean and Kantian sense: as the freedom experienced only in obeying a self-given law. Autonomy would henceforth designate the fact that a system—and not only one using the medium of positive law—can only ever use its own structures to make decisions, even when they are prompted by changes in the environment. In other words, not only are systems plastic, self-organizing, and selective, they are also basally reflexive.

In the following year of 1967, as he began his transition from administrative scientist to sociologist in earnest, Luhmann confirmed his interest in retaining the mantle of the Enlightenment legacy, putting forth perhaps his first programmatic statement on what he considered the current and future task of sociology. The eighteenth-century "Enlightenment of Reason" [*Vernunftaufklärung*] and its project of "unmasking" superstition, he declared in "Sociological Enlightenment," had undoubtedly outlived its usefulness, despite its manifold afterlives. For, while acting as a vehicle of modernization, it had nonetheless preserved too much of the old ethical-metaphysical tradition.[225] But like the concepts of will, decision, and autonomy, the general project of small 'e' enlightenment was not to be discarded altogether, it had only to be reformulated into the terms of a theory of complexity-reducing systems. Neither "history" nor the "free discussing public," but only "systems are the medium of enlightenment." As such, it was the sole prerogative of a theoretically revitalized sociology to preserve what was most essential to enlightenment: *reflexivity*.[226] Enlightenment, at its most fundamental level, had the capacity to clarify its own presuppositions for itself. But so far it had failed to clarify what was most essential to its own genesis: "Behind so much enlightenment is a still-hidden problem palpable, the social contingency of the world**.** *Grand* theory is now only still possible as a suggestion for the solution of this problem—no longer as an enlightenment that always has more to unmask"—an "Enlightenment of Reason"—"but rather as a glimpse of the limits of

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Operations Research That Luhmann's appeal to the semantics of autonomy referred more self-consciously to the Enlightenment becomes clear in the context of his discussions of the history of concepts.

[221] Luhmann, *Recht und Automation*, 35.

[222] Luhmann, 35.

[223] Luhmann, *Zweckbegriff und Systemrationalität*, 104.

[224] Mireille Hildebrandt, "Autonomic and Autonomous 'Thinking': Preconditions for Criminal Accountability," in *Law, Human Agency, and Autonomic Computing: The Philosophy of Law Meets the Philosophy of Technology*, ed. Mireille Hildebrandt and Antoinette Rouvroy (Milton Park, Abingdon, Oxon ; New York, NY: Routledge, 2011).

[225] Luhmann, "Soziologische Aufklärung," 1967; Luhmann, "Soziologische Aufklärung," 2009.

[226] Luhmann, "Soziologische Aufklärung," 2009, 109; Luhmann had already devoted attention to this concept the year before in the same journal, *Soziale Welt*. Niklas Luhmann, "Reflexive Mechanismen," *Soziale Welt* 17 (1966): 1–23.

enlightenment, as clarification of enlightenment [*abklärende Aufklärung*]."[227] Only a theory of social systems informed by transcendental phenomenology, cybernetics, and outfitted with a new concept of rationality, could illuminate the possibilities for such a "sociological enlightenment."

[227] Luhmann, "Soziologische Aufklärung," 2009, 86.

9

PHENOMENOLOGY AND THE CONTINGENCY OF THE WORLD

LUHMANN READS BLUMENBERG, 1966-1971

October 29th, 1969

Sehr geehrter Herr Blumenberg,

In an English-language publication for the American public I would like to elaborate on the concept of contingency. For this occasion I would like to inquire whether you are familiar with English-language literature on the history of this concept to which I could refer on this occasion. If so, I would be very thankful for the corresponding references; if not, please do not trouble yourself with the effort of a separate response.

Sincerely,
Yours,

Prof. Dr. Niklas Luhmann[1]

"The world may have developed absolutely contingently. Therefore everything can be changed—just not all at once."[2]

In Chapter Three I reviewed Luhmann's use of phenomenology to help articulate his functionalist methodology by way of a critique of ontological metaphysics. But phenomenology had since, for the most part, dropped out of view as my narrative detoured to follow Luhmann's elaboration of the form of systems rationality involved in organizations like the public administration.[3] Phenomenological motifs only returned in full force, however, in Luhmann's dawning interest in the problem of the "world" in 1967. But although in texts from that year Luhmann only referred in passing to the world as a "problem" in view of its complexity, at the same moment was just beginning to announce his far more ambitious plans for a new approach to theorizing society well beyond the parochial confines of administrative science. In two programmatic texts from 1967, "Sociological Enlightenment" and "Sociology as a Theory of Social Systems," what Luhmann referred to as the "problem of the world" took center stage as the decisive catalyst and reference point for developing a functionalist and systems theoretical approach to "society" as such—that is, not to just any social systems, but to the most encompassing social system of all, one which

[1] Correspondence from Niklas Luhmann to Hans Blumenberg, 29 October 1969, and February 1970, HS.2003.0001, Hans Blumenberg Nachlass, Deutsches Literaturarchiv, Marbach am Neckar.
[2] Niklas Luhmann, "Soziologische Aufklärung," in *Soziologische Aufklärung 1: Aufsätze zur Theorie sozialer Systeme* (Wiesbaden: VS Verlag für Sozialwissenschaften, 2009), 107.
[3] Although even there phenomenological themes persisted, for example, in Luhmann's description of the modes of appearance of objects within the horizon of an organization. See the description of the appearance of the office door in Niklas Luhmann, *Funktionen und Folgen formaler Organisation* (Berlin: Duncker & Humblot, 1964).

Luhmann would come to declare a "world society" as early as 1971.[4] And for the first time, in "Sociological Enlightenment," Luhmann first began to write explicitly of *Kontingenz*—specifically what he came to call the "social contingency of the world" in 1967-1968.

So why, in addition to the "complexity of the world," a phrase that Luhmann had only just begun to deploy, did he also feel compelled to write of the world's "contingency?" And why, unlike in subsequent texts, did he only refer to contingency as qualified by the adjective "social?"

Luhmann's decision to emphasize the social dimension of contingency likely had something to do with the context in which he first recognized the possibilities *Kontingenz* afforded his systems theory. It was almost certainly Blumenberg's "Lifeworld and Technization from the Perspective of Phenomenology" that piqued Luhmann's interest in the concept of contingency. As described in Chapter One, "Lifeworld and Technization" was Blumenberg's first major text that fully and explicitly emphasized the semantics of contingency, which it articulated through a novel and critical reconstruction of Husserl's thesis of the technization of the lifeworld in the phenomenologist's final work, the *Crisis of the European Sciences and Transcendental Phenomenology*. Blumenberg's text made evident the close connection between contingency and complexity by drawing attention to the idea of contingency as the visibility of other possibilities with respect to any actuality, which would thereby be revealed as a mere "selection" from among them.

But not only because it shared a common conceptual core with the figure of the "complexity of the world" did Luhmann find Blumenberg's use of contingency especially amenable to his systems theory of society. Blumenberg's critical reconstruction of what Husserl called the "technization of the lifeworld" highlighted the importance of "technique" to the *inter*subjective constitution of the world. *Crisis* had after all marked Husserl's own attempt to expand his account of transcendental phenomenology to include dimensions of the social world that Kantian forms of idealism had relegated to the empirical side of the transcendental/empirical split. In other words, *Crisis* opened up phenomenology to the possibility of transcendental intersubjectivity, of a social a priori. But where Husserl held technization to be an erosion of a more primordial transcendental intersubjectivity, Blumenberg and Luhmann would come to view it as the only possible basis for extending the very work of transcendental intersubjectivity as modern societies became more complex. Technique, in Blumenberg's reading, had become a necessary component of its maintenance, a means of facilitating social communication in, though, and despite the contingency of an infinite world.

The qualification of contingency as "social" may have appeared at first as a diminution in comparison to its absoluteness in Blumenberg's scheme—not to mention in contrast to Luhmann's own emphasis on the concept of complexity. Certainly, as late as 1968, in his presentation at the annual German Sociological Conference in Frankfurt, Luhmann seemed to minimize the meaning of contingency precisely with respect to "complexity." There he claimed that, to transform the "transcendental problem of the social contingency of the world" into a "a point of departure for a theory of society," it would first be necessary to "redefine contingency as complexity." After all, "the social contingency of meaningful experience," he concluded, "is nothing else than an aspect of that immeasurable world complexity, which must be reduced through system formation."[5] But of course, for a sociologist the "social" was of no minor concern. Indeed, only a few paragraphs earlier in the

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[4] Niklas Luhmann, "Die Weltgesellschaft," *ARSP: Archiv Für Rechts- Und Sozialphilosophie / Archives for Philosophy of Law and Social Philosophy* 57, no. 1 (1971): 1–35; Reprinted in Niklas Luhmann, "Die Weltgesellschaft," in *Soziologische Aufklärung 2: Aufsätze zur Theorie der Gesellschaft*, 6th ed. (Wiesbaden: VS Verlag für Sozialwissenschaften, 2009).

[5] Niklas Luhmann, "Moderne Systemtheorien als Form gesamtgesellschaftlicher Analyse," in *Theorie der Gesellschaft oder Sozialtechnologie: Was leistet die Systemforschung*, by Jürgen Habermas and Niklas Luhmann, ed. Karl Markus Michel, Auflage: 2. (Frankfurt a.M.: Suhrkamp, 1974), 11; originally printed in Theodor W Adorno, ed., *Spätkapitalismus oder Industriegesellschaft?: Verhandlungen des 16. Deutschen Soziologentages* (Stuttgart: Ferdinand Enke, 1969).

same essay he also confirmed that his use of the adjective "social" designated precisely a species of universality: "The reference problem of society can now no longer be the *political contingency* of the "good life," of the fulfillment of ends and the satisfaction of needs," as had been the case for the old European "ethical" tradition, "but rather only the *social contingency* of the world. A theory of social systems must be able to correspond to this problem—or else it will only be able to apply the word 'social' under an arbitrary [*willkürlicher*] restriction and with a bad conscience."[6] In other words, Luhmann grounded the very constitution of the social in the universal problem of contingency.

The following chapter unfolds in three sections. The first offers an overview of the features of Husserl's phenomenology that are relevant to his culminating argument about the technization of lifeworld in *Crisis of the European Sciences*. The following section then details the core arguments of Blumenberg's "Lifeworld and Technization from the Perspective of Phenomenology." Finally, Section Three lays out the key points concerning contingency, worldhood, technization, and phenomenology which Luhmann appropriated from Blumenberg's essay.

» 1. The Problem of the World in Husserl's Phenomenology «

To get a grip on the meaning of the world in Husserl's late phenomenology, and in particular, to make sense of Blumenberg's immanent critique of Husserl's account of its "technization," we need to first take a step back and view the "world problem" as an immanent development of Husserl's original project.

From the very beginning, Husserl presented his phenomenology as both a justification of science and a critique of its naturalistic interpretation. As far back as the *Logical Investigations*, Husserl proposed phenomenology as a means to transcend both the closed idealism of neo-Kantianism and the positivistic approach to the mind he called "psychologism," and instead return to "the things themselves."[7] His fundamental "discovery" was to re-envision consciousness as a structure of "intentionality," a term he adapted from Franz Brentano. Consciousness, he argued, could *only* be understood *as* intentionality. In other words, consciousness is not simply a passive and latent structure, container or field that can come into contact with some external object, but always has an object. And so rather than assuming a split between consciousness and the world, Husserl argued that we should begin by at how something appears *as* something without any prejudices about its mode of existence. This would begin with a process of description: how is an object "given" to consciousness? What are its modes of appearance? Objects are always perspectival: they appear in terms of a specific intentional content or *meaning* that allows them to "show up" in a specific way. When I look at a table, I do not directly perceive all of its sides. Nevertheless, I do not have to walk around a table to perceive it as a three-dimensional object with four legs and a flat surface, or touch it to assume that it is made of a certain material or that it has a certain weight and solidity.

Moreover, by freely varying the object in an act of imaginative "fantasy," exploring how the object would manifest in every possible world, a procedure which Husserl also called "eidetic variation," the phenomenologist could reveal the essential structures of the inner horizon of any object of conscious experience. The point, however, was not in the first instance to analyze and catalog the structure of specific objects in the world, but rather to analyze the consciousness for which they appear. Describing how things appear was only the first step towards an account of how consciousness "constitutes" its objects, of the intentional and subjective *acts* that form the

[6] Luhmann, "Moderne Systemtheorien als Form gesamtgesellschaftlicher Analyse," 9–10.
[7] Edmund Husserl, *Logical Investigations*, ed. Dermot Moran, trans. J. N. Findlay, vol. 1 (London: Routledge, 2001); Edmund Husserl, *Logical Investigations*, ed. Dermot Moran, trans. J. N. Findlay, vol. 2 (London: Routledge, 2015).

conditions of possibility for the appearance of objects. These analyses would then reveal how consciousness intends the being of objects in terms of their "meaning" [*Sinn*], which determined their mode of givenness. It is meaning which, for Husserl, allows objects to show up for consciousness *as* something, and which allows objects to be maintained in their identity despite their necessarily perspectival mode of appearance.

But then what would distinguish such imaginative or merely intended "meant" objects from "real" ones? Intentions, Husserl argued, can be *empty*: consciousness can intend something without actually having the thing present before it, or without the thing even existing in the world at all—as with, say, a unicorn. Or when hearing a name of a person or thing, for instance, we can bring it to mind, but such an intention lacks the immediacy of the thing itself. The telos of conscious intentionality, Husserl argued, aims at such a "fulfilling intuition" of its objects, in which the object is corporeally present for the subject as "evidence." Phenomenology, beginning with an act of description and moving on to free variation could thereby reveal objects' internal horizon, the totality of their possible modes of appearance, and beneath this, the common identity of the thing uniting each of its different aspects.[8] Such essential identities would thus establish what "counts" as a fulfilling intuition of certain classes of intentions. Since every appearance is correlated with consciousness, this procedure would enable analysis of the structures of consciousness.

Husserl soon realized that every object has not only an *internal* horizon, but an *external* one as well: objects always appear in terms of the "referential structure" of a "world" or "intentional horizon" co-presented to consciousness along with every singular intention.[9] Such a horizon corresponded to the expectations of consciousness, which encompassed all the possible worlds that might be experienced in the future. When I come to "know" an object, I am, at the same time, always dimly aware of an indeterminate range of possible kinds of experiences I might have of the world in which it appears, the web of relationships it is embedded or *could* be embedded. This notion of the world as horizon would become one of the central pillars of phenomenology. Ludwig Landgrebe, Husserl's former assistant and Blumenberg's Doktorvater commented in 1940 that "in the future, anyone who proposes to clarify the concept 'world' should first become acquainted with Husserl's results."[10] Such a world, moreover, is always already given in the form of what Husserl called the "natural attitude," the naïve, everyday mode in which we experience reality as *really real* before deliberately reflecting upon it. A forerunner of the concept of the "lifeworld," the natural attitude is simply the way things appear in our everyday practices as indubitably and incontrovertibly real.

But in order to refine the instruments of phenomenological analysis this naïve belief in the real existence of the objects of experience as given would have to be "bracketed," a procedure which Husserl called the phenomenological *epoché*. As with free variation, the *epoché* involved imaginatively "annihilating" the actual existence of the object and its world—or rather, bracketing the naïve assumption or "positing" of its existence by consciousness—in order to reveal its structures.[11]

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[8] Husserl later described these ideas in a notably Leibnizian phrasing: "No matter where we turn, every entity that is valid for me and every conceivable subject as existing in actuality is thus correlatively—and with essential necessity—an index of its systematic multiplicities. Each one indicates an ideal general set of actual and possible experiential manners of givenness, each of which is an appearance of this one entity, such that every actual concrete experience brings about, from this total multiplicity, a harmonious flow of manners of givenness which continuously fulfills the experiencing intention." Edmund Husserl, *The Crisis of European Sciences and Transcendental Phenomenology: An Introduction to Phenomenological Philosophy*, trans. David Carr (Evanston: Northwestern University Press, 1970), 166.

[9] Husserl, 162.

[10] Ludwig Landgrebe, "The World as a Phenomenological Problem," *Philosophy and Phenomenological Research* 1, no. 1 (1940): 38.

[11] Husserl, *The Crisis of European Sciences and Transcendental Phenomenology*, 148–50.

Carrying out such a procedure would then enable the phenomenologist to effectuate what Husserl, after the "transcendental" turn of *Ideas*, considered to be the core of phenomenology: the "transcendental reduction."[12] The purpose of the reduction was to lead the "mode of givenness" of objects in the world back to the subjective accomplishments of a transcendental ego. The reduction, in other words, would reveal how the objects of the natural attitude were in fact "constituted" by transcendental consciousness.[13]

Crucially, constitution did not mean that consciousness "creates" or "fabricates" all of reality, in neither a causal sense nor as a kind of subjective idealism that treats all phenomena as mental representations, as simply and irreducibly immanent to consciousness. The concepts of "evidence" and "fulfilling intuition" would have no meaning were Husserl to have subscribed to such a strong form of subjective idealism. Consciousness does not create the world and its objects *ex nihilo*. Constitution describes, rather, how the acts of consciousness are necessary in order for the world to "show up;" the world is not passively given, but always involves the active contribution of a subject.[14] The transcendental reduction, in other words, aimed to reveal what Husserl called the fundamental "correlation" of consciousness and world[15]

No later than the 1920's, however, Husserl came to recognize that his original formulation of the *epoché* and reduction had jumped too hastily from the natural attitude back to the pure transcendental ego without having become fully cognizant of what exactly had to be bracketed. Just as he had previously asserted that objects had not only an internal but also an external horizon, a world co-intended but not thematized in every intention, in the years leading up to *Crisis* he began to recognize that this world could not be so easily dispensed with in the single fell swoop of the *epoché*. Lacking a more thorough investigation into the world's modes of givenness, the phenomenologist risked remaining in the natural attitude even after performing the reduction.

Husserl developed his famous inquiries into lifeworld, above all in his final work, *Crisis of the European Sciences*, in part to refine the procedures of the *epoché* and transcendental reduction so as to rectify this shortcoming.[16] The lifeworld could be viewed as the "objective" correlate of the natural attitude: it is the "universe of pre-given self-evidence," the world taken for granted as simply, reliably and "obviously" *there*.[17] In other words, the lifeworld is the antithesis of the radical skepticism of Cartesian doubt, embodied in the experience of walking over a bridge without having to wonder whether it is really there, or whether it will hold one's weight.[18] At the same time, the lifeworld is not the world as such: whereas the latter is the singular universal horizon of all possible experience, the lifeworld is always *plural*: there are multiple lifeworlds evolving and changing in time and distributed across different cultures throughout the one world. Thus it was also of signal importance to Husserl that the "meaning" through and as which objects in the world show up to consciousness not be understood as constituted by an isolated, solipsistic consciousness, but as a product of tradition, of a

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[12] Edmund Husserl, *Ideas Pertaining to a Pure Phenomenology and to a Phenomenological Philosophy: First Book: General Introduction to a Pure Phenomenology*, trans. F. Kersten, Softcover reprint of the original 1st ed. 1982 edition (The Hague; Boston; Hingham, MA, USA: Springer, 1983).

[13] Husserl, *The Crisis of European Sciences and Transcendental Phenomenology*, 151–53.

[14] Husserl, 168.

[15] For more on the concept of constitution, see Dan Zahavi, *Husserl's Phenomenology* (Stanford, CA: Stanford University Press, 2003), 72–77.

[16] Hans Blumenberg, "Lebenswelt und Technisierung unter Aspekten der Phänomenologie," in *Wirklichkeiten in denen wir leben: Aufsätze und eine Rede* (Stuttgart: P. Reclam, 1981), 25; Zahavi, *Husserl's Phenomenology*, 125.

[17] Husserl, *The Crisis of European Sciences and Transcendental Phenomenology*, 180. Translation modified.

[18] As Landgrebe would later put it, "As a whole, our world, the world in which we find ourselves consciously living, remains certain, no matter how many details become doubtful or invalid. Only particular parts of it ever undergo the correction, 'not so but otherwise.' This means that every particular positing or negating presupposes a universal basis: belief in the world, certainty of the world." "The World as a Phenomenological Problem," 41.

cultural world of meaning constituted in history by a multiplicity of subjects.[19] In other words, against frequent critiques that phenomenology was congenitally solipsistic, *Crisis* aimed to establish the paramount significance of intersubjectivity in the constitution of meaning. A more robust reduction, by first passing through this intersubjective, *historical* and *cultural* world, would thereby reveal not only the constitutive accomplishments of the transcendental ego, but also the equally fundamental role of transcendental *intersubjectivity* in the constitution of the world.

But the historical tradition that had determined the shape of the lifeworld of modern Europe, for Husserl, was not merely a cultural world like any other, but a structurally pernicious excrescence that threatened the lifeworld itself. For the lifeworld concept served Husserl as more than a means to refine the phenomenological reduction. It was also an opportunity to deepen and extend his career-long polemic against positivistic scientism and psychologism. The kind of naturalism undergirding the latter Husserl now began to describe as scientific "objectivism." Unlike his criticism of psychologism over three decades earlier, however, this objectivism not only represented a philosophical error; it had led to a "crisis" of world-historical proportions. Objectivism was a deformed and parasitical variant of the "theoretical attitude" that had determined the process by which the modern world had unfolded. This fateful process, which had been initiated by Galileo, Husserl called the "technization of the lifeworld."

Husserl's investigations in *Crisis* revealed that what shows up in the "natural attitude" of the modern world, far from the experience of any and every naïve consciousness, was rather a contingent historical aberration, a product of the scientific revolution and the process of technization it unleashed. The world that appears as really and unquestionably real to everyday consciousness had been determined by the objectivizing gaze of the scientific worldview, in which what counts as 'really real' is only the realm of extended, quantifiable, corporeal entities called "nature," that is, reality insofar as it is amenable to mathematical description. This worldview posited nature as the true world "behind" the world of mere subjective appearances. But for Husserl there was no such thing as a "world behind the world"; philosophers were not the "*Hinterweltlern*" Nietzsche castigated in *Thus Spoke Zarathustra*.[20] Far from the one true world behind the world of appearances, the real world outside the cave, "nature" was but one possible narrowing or restriction of all the possible modes of givenness of the world. Reduced to pure corporeal extension, the world reified as "nature" was but a "snippet"—a "selection"—of that far richer expanse of meaning preserved and regenerated in the lifeworld.

Most nefarious in Husserl's eyes, however, was that, in the process of technization, the "original" accomplishments of subjectivity, that wider world of meaning, were forgotten, concealed beneath the proliferation of a rigid and unquestionable world of mere surfaces, evacuated of the excess of other possibilities latent in the infinite depths of a meaningful reality. Such a purified and emaciated scientific complex had thus become disconnected from the original subjective *motivations* that animated the world of human meaning. Far from finding its consummation in modern science, the path of the theoretical attitude originally awakened in ancient Greece under the heading of "philosophy" was instead decisively truncated and illegitimately usurped by it. For the real legacy of Galileo, and the underlying structure of modern science as technization, was *method*: the reduction of scientific inquiry to the following of a formalized procedure, the unself-conscious appropriation of the results of prior theoretical intuitions and discoveries as ready-mades. This meant that all of science was a giant edifice of abstractions built upon a quicksand of abstractions, in which no one any longer grasped the intuitive meanings originally involved in prior accomplishments, scientific or

[19] Husserl, *The Crisis of European Sciences and Transcendental Phenomenology*, 168.
[20] Friedrich Wilhelm Nietzsche, *Thus Spoke Zarathustra: A Book for All and None*, trans. Walter Kaufmann (New York, N.Y: Penguin Books, 1966), 30–33.

otherwise. Availing himself of a Kantian distinction, Husserl castigated the theoretical orientation of modern techno-science as mere "understanding" [*Verstand*], in contradistinction to the deeper and richer philosophical ideal of "reason" [*Vernunft*].[21] The products of such method had then simply been reabsorbed back into the lifeworld, concealing all the other possible ways for encountering the world, and inhibiting philosophy, as the standard-bearer of the theoretical attitude, from guiding consciousness to the evidence required for the intuitive fulfillment of intentionality.

In a variant of Weber's disenchantment thesis, Husserl thus argued that modern science had not only forfeited the original promise of the theoretical attitude to provide existential meaning and fulfilling intuitions; in arrogating to itself the sole right to determine reality, it had also rendered such exploits nearly impossible. Husserl held out little hope for turning back the clock, reversing this history, and undoing the proliferation of technization. But perhaps philosophy could still yet play a role. *Crisis* thus claimed for phenomenology the far more modest *therapeutic*—yet still world-historical—task of helping to recover and reactivate the latent layers of meaning concealed by technization. As the true immanent telos of the theoretical attitude, phenomenology could provide the necessary "antitoxin" to technization. Phenomenology, in Blumenberg's words, "confronts the immanent structure and the development of the crisis-laden process, as it were, as an antibiotic."[22]

» 2. Blumenberg's Commentary « "Lifeworld and Technization from the Perspective of Phenomenology"

In Blumenberg's view, Husserl's argument concerning the technization of the lifeworld suffered from several imbricated ambiguities, which nevertheless, if properly exhibited, pointed to some important revelations about technization, modernity and phenomenology, of which Husserl was only dimly aware. One of the most important of these, in Blumenberg's estimation, was Husserl's ambivalent use of the metaphorics of "concealment" and "discovery," "*Verdeckung*" and "*Entdeckung*." *Crisis*, Blumenberg argued, had made the "profound insight" that "discovery and concealment are inseparably joined at the hip in the history of the achievements of modern science."[23] Husserl's analysis did not err in describing modern technical-scientific progress as a form of expansion-through-restriction, because technique, Blumenberg affirmed, functions by furnishing its users with always-already finished products, which proactively repel insights into their inner mechanisms, along with the whole history of accomplishments that had led to their construction.[24] In other words, technique essentially amounted to a form of reification.

Although Husserl had caught a glimpse of the inseparability of concealment and discovery, Blumenberg thought he had failed to fully appreciate its meaning, because to affirm it would have undermined the central promise of phenomenology to rectify a historical wrong. Instead, Husserl assumed that discovery did not have to be purchased at the cost of concealment; it was only a contingent effect, he thought, of the affordances of technization.[25]

But was this really so? Blumenberg thought not. And he insisted that Husserl's own statements testified to the contrary. Like Nietzsche's early screed against the historical consciousness for repressing the life-affirming powers of forgetting,[26] the very function of the lifeworld itself

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[21] Blumenberg, "Lebenswelt und Technisierung unter Aspekten der Phänomenologie," 34.
[22] Blumenberg, 39.
[23] Blumenberg, 33.
[24] Blumenberg, 36–37.
[25] Blumenberg, 34.
[26] Friedrich Nietzsche, *On the Advantage and Disadvantage of History for Life*, trans. Peter Preuss (Indianapolis: Hackett Publishing Company, Inc., 1980).

appeared premised on the necessity of concealment for living: As Blumenberg put it, the lifeworld functions only insofar as it "remains concealed in its own contingency, that is, it is not encountered as also-able-to-be-otherwise."[27] Although it is the basis and underlying horizon of the "and so forth" of other possibilities, the lifeworld nonetheless only functions by disburdening consciousness of having to become thematically aware of them. In other words, the lifeworld provides a condition of human cognition precisely insofar as it represses its own contingency, making the human being feel at home in a familiar and dependable world. The lifeworld, Blumenberg noted in "The Lifeworld and the Concept of Reality" (1972), resembles Plato's cave, albeit with the signs reversed: now the idea of truly leaving the cave was the dangerous illusion, and the home world of the cave posed the limits to all possible knowledge. History then appears as the actualization of conscious intentionality, which proceeds upon the basis of this lifeworld, with phenomenology as the vanguard carrying out this history's infinite task.[28]

Like Plato's cave, the lifeworld "has no modality"—it represses the thematic experience of other possibilities, and "is thus never the world in which we live."[29] Consciousness of the "world" as such, however, presupposes the ability to recognize that a given lifeworld is only one among many possible lifeworlds, and that the world as experienced is actually *constituted* by consciousness and not merely given to it, and therefore could be otherwise. But *this* recognition could only appear as a result of the theoretical attitude, of which phenomenology was supposed to be the primary legatee. Although the *epoché* forced contingency back into view, it also revealed how the lifeworld is structured precisely so as to eliminate—or at least reduce—direct exposure to that very same contingency. As Husserl himself described it, self-consciously punning on the German word for "understanding," "*Verstand,*"the task of phenomenology was one of "transforming the self-evident [*das Selbstverständliche*] into the intelligible [*Verständlichkeit*]." And the lifeworld he had described precisely as the "universe of self-evidence." But this was precisely the same language he used to describe the nefarious of effects of technization—as concealing the other possibilities of meaning behind the self-evidence of their functional readiness-to-hand. Thus, following Husserl's own words, Blumenberg reasoned, perhaps it was phenomenology, more than technique, that harbored an antagonistic relationship to the lifeworld. From the perspective of the lifeworld, Blumenberg argued, "intentionality" appears as much an "intrusion" as a "fulfillment."

Even more important, Husserl's presentation of the lifeworld and technization as *historical* categories only yielded further ambiguities. While technization was supposed to have "broken out" of the lifeworld at a particular moment in history, the lifeworld appeared to Husserl as both a "historical point of departure" and at the same time as an "always co-presented ground level," as genetically and logically, diachronically and synchronically prior to every individual intention.[30] Both meanings, Blumenberg averred, ran the risk of rendering the lifeworld as a normative pole. But to do so would have run afoul of Husserl's designation of phenomenology as a science of transforming the self-evident into the intelligible. Thus, although its affiliated metaphorics pointed in this

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[27] Blumenberg, "Lebenswelt und Technisierung unter Aspekten der Phänomenologie," 23.

[28] Husserl's lifeworld "marks the point of departure of history as a teleologically directed process of the actualization of the intentionality of consciousness with the limiting value of phenomenology itself. This is not a process which leads out of the 'life-world' and flows into 'authentic' reality, but one which reduces and reconditions the self-evidences of the life-world itself." Hans Blumenberg, "The Life-World and the Concept of Reality," in *Life-World and Consciousness: Essays for Aron Gurwitsch*, ed. Aron Gurwitsch and Lester Embree, Northwestern University Studies in Phenomenology & Existential Philosophy (Evanston, Ill: Northwestern University Press, 1972), 429.

[29] Blumenberg, 430.

[30] Blumenberg, "Lebenswelt und Technisierung unter Aspekten der Phänomenologie," 23.

direction, "even for Husserl the lifeworld as the universe of self-asserting self-evidence can have no redemptive meaning [*Heilssinn*]."[31]

To Blumenberg's eyes, Husserl's equivocation on these matters pointed to his deeper motives in constructing the lifeworld idea. These motives and their contradictory consequences became especially manifest in the teleological history of European reason in which the lifeworld was implicated. Even if the lifeworld was not intended as a kind of prelapsarian "mythical paradise," rendering it as a historical "limit idea" was nevertheless crucial to how Husserl conceived the task of phenomenology. Inheriting the "pathos of the radical beginning" from his "role model," Descartes, Husserl envisioned the possibility of "recovering" concealed meaning in the "construction of an ahistorical beginning of history, of an atheoretical 'prehistory,' in order to legitimate thereby the possibility of a 'repetition' of a radical beginning in thought."[32] But the truly radical beginning, for Husserl, was not Descartes, but the "theoretical reorientation" that first took place in ancient Greece, and which initiated the teleological history of European reason. It was this "original" exit from the cave of the naïve lifeworld Husserl wanted phenomenology to repeat.
Husserl could thus present his phenomenology as the fulfillment of an immanent historical telos of reason, of the theoretical attitude, in its act of peeling back the final layers of what had come to be taken for granted.

Yet such a promise of fulfillment revealed yet another, deeper ambiguity in Husserl's conception of phenomenology. Here Blumenberg detected a persistent antinomy between the ideal of the *fulfillment* of intentionality guided by phenomenological inquiry and phenomenology as an *infinite task*. Well before Husserl became concerned with what he diagnosed as the historical malady of technization, the promise of intuitive fulfillment through evidence as the telos of intentionality could not be easily reconciled with his own conception of reality as an infinite horizon. Husserl himself had been the first to emphasize the necessity with which phenomenology revealed itself as an infinite task over two decades prior.[33] And even earlier, in *Logical Investigations*, Husserl had himself intimated that intuition might simply remain unfulfillable because of it could only process an infinite reality perspectivally—that is, *selectively*. As Blumenberg put it, "In the syntheses of empirical intuition a selection of aspects of the thing always and necessarily takes place; in the continuum of adumbrations, as it were, leaps are taken, because, just like the ideal of pure intuition of the empirical, the ideal of running through all possible perspectives is unfulfillable… But that means: at the lowest, most elementary level of its achievements, human intellect is always already involved in formalization."[34] In other words, the idealizing abstraction for which Husserl took modern natural science to task is thus simply a latter-day elaboration of that form of selective restriction on intuition, which had been the precise accomplishment of the lifeworld. In Blumenberg's words, "If Husserl sees the essence of modern natural science in a specific underlying abstraction, then this is not therefore a late transgression in European intellectual history, but rather only the belated consequence of a constriction of intuition that is already moored in natural experience."[35] The abstractions of technization, of formalized method, in other words, emerged immanently out of the a priori structure of conscious intentionality.

The immanence of technization to the syntheses of the lifeworld suggested by Husserl's own analyses thus rendered his historical account of its break-out suspect. Husserl never clearly identified the "motivation" behind it.[36] Simply appearing, rather, as the sole "voluntaristic element" in

[31] Blumenberg, 24.
[32] Blumenberg, 25.
[33] Blumenberg, 40–41.
[34] Blumenberg, 43–44.
[35] Blumenberg, 24–25.
[36] Blumenberg, 29.

Husserl's thought, an arbitrary decision external to the immanent unfolding of the theoretical attitude in history, technization could thus be presented as a blunder, a deviation from the teleology of theoretical reason for which some agency could be held responsible, suggesting that it might be possible to "roll back" this historical detour. But without a motivation or an identifiable agent, it was not at all obvious that technization could be described in moral terms as a historical deviation.

Blumenberg sensed that affirming the antinomy of intuition and infinity, fulfillment and selectivity, by contrast, would make it necessary to recognize the impossibility of overcoming the dialectic of concealment and discovery determining the relationship of the lifeworld and technization. And so Husserl's own theory, against his own intention, implied that the relationship between intentionality and the lifeworld was less antagonistic than *dialectical*. Although he never explicitly put it this way, Blumenberg seems to have depicted Husserl as an inheritor of Hegel's philosophy of history: the structure of intentionality demanded an exit from the "fullness" of the lifeworld in the form of the "theoretical attitude," but only in order to reconstitute the fulfillment it provisioned at a higher level, by recognizing the contingency of the lifeworld's provision of wholeness. In this sense, the artificial reduplication of the lifeworld through formalized technization appears to represent this higher mediation of the competing motives of fulfillment and transcendence, intuition and fulfillment, by displacing and delaying their impossible reconciliation into the limitless horizon of a history that unfolds into the future. In revealing this historical structure, phenomenology can only be but a moment within its process, and not the answer at the end of history for which Husserl sometimes seemed to hope.

Accepting the insuperable validity of these antinomies, Blumenberg wagered, would also render legible the historical "motive," which Husserl had obscured, behind the early modern breakout of technization. Technization-as-methodization provided a means, if not to reconcile, then at least to ameliorate the tension between fulfillment and transcendence, concealment and discovery, *philosophy and science*.[37] Husserl's reluctance to acknowledge that possibility may have explained why he seemed naively to appropriate the early Descartes' belief that the entirety of scientific knowledge could be ascertained within the lifetime of an individual, should one simply throw off the "ballast" of superstitions handed down by tradition. The necessity of progress as an intergenerational task became evident as soon as this faith was disappointed by the fact of its own impossibility. Naturally it had been Leibniz, the original philosopher of complexity, who had first pointed out that even geometry, for Descartes and Husserl the domain of the most complete, apodictic, fulfilled certainty, would never had gotten anywhere had it not worked with empty intuitions, idealizations, formalized abstractions that could not yet be proved with absolute certainty. Progress depended on willingness to assume the unproven, the provisional, the partial.[38] Hence the break out of technization, Blumenberg seemed to suggest, could be read as a 'legitimate' response to this situation—or at least, legitimate according the phenomenology's own criteria. After all, just like the modern science it was supposed to remedy, "Husserl's phenomenology is the most extreme exacerbation of this *infinite* demand with which a *finite* existence is burdened."[39] And for this reason, Blumenberg concluded, "The *loss* of meaning of which Husserl spoke is in truth a self-imposed *renunciation* of meaning, consequent on his theoretical claim. One cannot enthuse about the becoming-human of infinite tasks and at the same time refuse the price of this becoming."[40]

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[37] "We can not get out of this antinomy between philosophy and science: the cognitive ideal of philosophy is opposed to methodization; science as the infinite tasks of a finite existence requires it." Blumenberg, 42.
[38] Blumenberg, 42–43.
[39] Blumenberg, 41.
[40] Blumenberg, 42.

Most importantly, by ensuring the intergenerational transmission of knowledge, technization also facilitates the intersubjective constitution of meaning. The fact of an infinitely complex world composed of objects that can only appear perspectivally means that the ability for multiple subjects to communicate about the *same* objects, that is, the possibility of establishing identical meanings across time and between subjects, necessarily required the assistance of idealizing abstractions. Otherwise, how would it be possible to be certain that two people are speaking about the same thing (other than by 'pointing' at present at hand corporeal objects)? Method is a technique of communication, which crystallized in history as a mode of securing the intersubjective transmission of meaning by effectively *black boxing* the other possibilities inhering in the referential horizon of meaning. In other words, a tension between transparency and opacity, concealedness and discovery, occupy the heart of modern knowledge and its organization as a social and historical process, or rather, knowledge as a form of self-organization in, through, and *as* history:

> Husserl's infinite task is the same answer to the question of the ultimate meaning of human existence, with an admittedly decisive difference: namely that, in view of its infinite task the concrete individual human being is necessarily neither fulfilling nor fulfilled, but rather can only be enlisted as a functionary in a context that outstrips him. The infinity of theory as 'research' requires transmissibility, methodization, formalization, technization. The Sophistic position comes to the fore again at a determinate point on the Platonic terrain: the concrete human being is not at all a possible subject of an infinite task; this subject must be constituted in the form of society, the nation, humanity, or of science, and indeed as a mandating principle that ruthlessly disregards the individual's claim on happiness. Even before the technical-industrial society functionalized the human being, the modern idea of science already exemplarily consummated this elementary act of modern history.[41]

Using only Husserl's own analyses, Blumenberg demonstrated, technization could just as well be read as having emerged at the beginning of modernity as a means of mending a lifeworld already fraying at the seams, restoring its function of cloaking the latent contingency of all conscious intentionality, but only at the cost of denying the lone human individual the status of a subject of history.

Though the impetus to technization was nourished on contingency, like the lifeworld, it did not consume this contingency, but merely concealed it. Yet in doing so, it increased the potential for the experience of contingency, since behind each of its surfaces laid an ever-thickening history of human inventions and decisions—a world full of other possibilities. This has significant consequences for any phenomenology that arrogated to itself the historical and therapeutic task of reactivating these possibilities. Phenomenology, Blumenberg argued, was only in a position to present itself as a therapy for this historical crisis because it was, to its core, the very "incarnation [*Inbegriff*] of the consciousness of contingency, of that basic process in the spiritual substrate of the technical world, which one could designate as 'making non-self-evident' or 'making things non-obvious' [*Entselbstverständlichung*]."[42] But as a vehicle for reintroducing contingency into the world, phenomenology would be hard pressed to carry out even its minimal function as a therapeutic element. Meaning, after all, is itself nothing but the structure of world as a horizon that refers to and also conceals "other possibilities," and so is always contingent. By recovering buried layers of meaning in the lifeworld, phenomenology could not help but reveal the contingency of what has

[41] Blumenberg, 45–46.
[42] Blumenberg, 47–48.

been concealed.[43] Far from some antidote to technization, in revealing the contingency of technization phenomenology also revealed the contingency of every lifeworld—its selectivity, its partiality, its ability to render an infinitely complex reality into a legible and reliable world for everyday human existence. Phenomenology peeled back the sedimented layers of technological and cultural development that had concealed the originary experience of contingency. Because phenomenology revealed the primordial experience of contingency upon which the world-building powers of technization had been founded, it could not help but reveal that these powers were extensions, immanent developments of the very "techniques" of the lifeworld itself.

And so, in important respects, it might be said that Blumenberg's notion of contingency "reoccupied" the double position of the lifeworld in Husserl's schema. In place of the lifeworld as an originary experience, as historically prior and always co-presented, Blumenberg inserted the primordial experience of *contingency*. It was an historical origin—an origin within and perhaps *of* history—that could always be "reactivated." Contingency was not yet in itself meaning, but, like a pearl forming around a foreign particle, meaning crystalized around the irreducible experience of contingency. Phenomenology, it turned out, was far more adept at laying bare contingency than it was at recovering buried sediments of meaning. For every discovery of the latter, by bringing into view ever more possibilities, only extended the scope of contingency with regard to the factual. Contingency had been the catalyst for the self-organization of a scientific knowledge, which Blumenberg clearly viewed as the core of modernity; method, as a response to the contingency and finitude of a human life, was a fallible means to secure the transmission meanings acquired in a lifetime to other humans, present and future.

» 3. Luhmann Reads Blumenberg «

> "The world is the contingency of systems."[44]

Luhmann's reception of Blumenberg's historical-philosophical account of *Kontingenz*, prompted first by his reading of Blumenberg's "Lifeworld and Technization," and later, of *Legitimacy of the Modern Age*, can be described with reference to the following four key points: *First*, Blumenberg's account of the phenomenological dialectic of concealment and discovery at the heart of modern science provided support for Luhmann's own critique of the Enlightenment critique of ideology, essentially becoming a model for what he called the "reduction of complexity." *Second*, Luhmann appropriated Blumenberg's reading of the philosophical and historical meaning of the "contingency of the world," and viewed it in essentially phenomenological terms as the excess of possibilities over actuality. That is, Luhmann agreed that phenomenology represented a paradigm of the consciousness of contingency, and in such a way that contingency and complexity became nearly equivalent yet still alternative modes for framing the problem of excess possibilities. This also entailed that the possibilities and actualities were categories of *meaning*, and thus that the world could only become manifest in the form of meaning. The world's contingency, as distinct from its complexity, was thus rooted in the fact that meaning-as-world was both product and condition of intersubjective

[43] This was evident as early as *Logical Investigations*, since the method of "free variation" presumed and operated upon this fundamental contingency of things in the world, whose existence was merely "posited" by the "general thesis" of the natural attitude. But the transcendental reduction of *Ideas* went even further: making the world as such dependent (even if not causally, as in divine creation) on subjective constitution revealed the fundamental contingency of not only the worldly, but of the *world itself*.

[44] Niklas Luhmann, "Generalized Media and the Problem of Contingency," in *Explorations in General Theory in Social Science: Essays in Honor of Talcott Parsons*, ed. Jan J Loubser et al., vol. 2 (New York, NY: Free Press, 1976), 526.

constitution. *Third*, Blumenberg's account of the historical relationship between the lifeworld, contingency, and technization-as-methodization provided a model for Luhmann's subsequent development of a theory of generalized media, which he explained with reference to the intersubjective problem of "double contingency." As a means for explaining the possibility of communication that can handle ever-greater complexity, the theory of generalized media not only resembled but directly drew upon Blumenberg's account of the role of technization in facilitating the transmission of scientific knowledge, thus constituting scientific progress. *Fourth* and finally, Blumenberg's account of the genesis of modern science in *Legitimacy of the Modern Age* drew attention to the common historical origins of these ideas about contingency and complexity in the seventeenth-century discussion of theodicy. Beginning around 1970, that is, around the time Luhmann sent a letter to Blumenberg inquiring about contingency, he began to repeat key elements of his elder's story of the origins of modernity in an experience of the contingency of the world, an experience provoked by late medieval nominalism and fatefully reconfigured in Leibniz's *Theodicy*. This part of the story only became fully explicit in the early 1970's, and so will be discussed briefly under the the third point, with additional conclusions drawn about its meaning in the final Chapter and conclusion. The remainder of this chapter will now consider each of the first three points in detail.

1. Contingency as the Visibilty of Other Possibilities, Concealment/Discovery as the Selectivity of Systems

Luhmann's explicit adoption of the language of contingency only fully came to the fore in in 1967 in "Sociological Enlightenment."[45] Although explicitly cited only once, the impact of "Lifeworld and Technization" is unmistakable throughout the entire essay, and lies at the heart of its proposed program. That "Lifeworld and Technization" and its reading of contingency found resonance in Luhmann's account of Enlightenment was itself hardly contingent. As a reckoning with the meaning of the Enlightenment as a paradigm for modernity, "Sociological Enlightenment" discovered resources in Blumenberg's interpretation of modernity as rooted in exposure to the contingency of the world, which harbored a distinct affinity for his own dawning projection of the task of sociology with respect to its historical epoch.

This affinity is evident, first of all, in their similarly ambivalent accounts of the genesis and significance of modernity. Though a defense of the project of modernity, and thus the Enlightenment, Blumenberg's critique nevertheless shattered one of the Enlightenment's most cherished idols: the gesture of *unmasking*. Unmasking designated the Enlightenment's adversarial relationship to tradition inherited from the past, which it viewed as little more a confused tangle of superstitions obscuring and concealing direct access to the truth of the nature of the human spirit. A forerunner of the nineteenth-century "critique of ideology," Enlightenment presented itself as a historical process by which mere superstition could be peeled back so as to reveal the obscured truth. But for Blumenberg, and Luhmann following him, the same experience of contingency that first set Enlightenment in motion was nevertheless concealed by the progress of Enlightenment. "Behind so much Enlightenment a still-hidden problem is palpable," Luhmann proclaimed: "the social contingency of the world. *Grand* theory is only still possible now as a suggestion for the solution of this problem—no longer as an Enlightenment that always has more to unmask, but rather as a glimpse of the limits of Enlightenment, as clarification of Enlightenment."[46]

Luhmann held sociology to be both an heir to the Enlightenment and a reaction against it.

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[45] Niklas Luhmann, "Politische Planung," in *Politische Planung: Aufsätze zur Soziologie von Politik und Verwaltung*, 1971, 85 fn 29; Originally published as "Politische Planung," *Jahrbuch Für Sozialwissenschaft* 17, no. 3 (1966): 271–96.
[46] Luhmann, "Soziologische Aufklärung," 86.

Its advantage lay in its capacity to recognize the intrinsic limits to the progress of knowledge rooted in his own version of a dialectic of enlightenment: a dialectic of complexity and contingency, concealment and discovery—or in other words, *selectivity*. "Sociology constitutes itself through the manner in which it offers a counterweight to the Enlightenment of unmasking that is slipping away and becoming universal, ultimately, through the way in which it works against the ungraspable complexity of a socially contingent world."[47] In short, Luhmann positioned sociology as an inheritor of phenomenology in its continuous revelation of the contingency concealed by every form of structure, but one which maintained no "illusions" that it could ever reveal some more profound yet hidden "truth" simply lying in wait "out there," or that society could ever come to dispense with the illusions that made it possible. These illusions [*Täuschungen*], however, would continue to provoke disappointment [*Enttäuschung*] so long as their structural necessity was not recognized. As Luhmann put it in another essay from the same year, "in a certain sense, all structure is based on illusion [*Täuschung*]—on illusion about the true complexity of the world."[48] The "reduction of complexity" amounted to a systems theoretical and sociological translation of "concealment."

Luhmann's rhetorical appeal to "illusions" should not, however, betray a lingering commitment to a metaphysics based on a distinction between being and false appearance. Luhmann also availed himself of phenomenology's refusal of this distinction and any epistemology based on the schema of "representation." It was this variant of the concealment/discovery dialectic that made sociological systems theory continuous with the project of Enlightenment, were the latter's activity only understood not as an "unmasking" of the complete and certain truth behind mere appearances, but as the recognition of the necessary "concealing" function of all illusory simplifications as means of coping with contingency and complexity.

Luhmann thus followed Blumenberg in emphasizing the antinomy immanent in both phenomenology and enlightenment between the ideal of "fulfilling evidence" and the "methodical technique" of transcendental reduction. As he put it, "transcendental reflection on that which I actually experience proves itself not as a path to totally certain evidence [*letztgewissen Evidenzen*], but rather as a methodical technique of transforming every evidence into a problem—including even the being of the world, which now appears as a problem of the most extreme indeterminate complexity."[49] Phenomenology inherited the best impulses of the Enlightenment insofar as it remained committed to problematizing the given instead of grasping for the true and certain being lying "behind" it. The goal of "unmasking" could be reformulated into the procedure of functional comparison as soon as the difference between being and appearance was replaced by a crypto-metaphysics of selectivity rooted in the difference between possibility and actuality. That which "appears" to a system as actual is not a false "representation" of reality, but merely one of the possible ways reality can become manifest. Because of the finitude of every consciousness—or other system—standing before an infinite world, every appearance is only ever partial. Every "thing" appears *itself*, but only ever selectively, *as* one of its possible ways of showing itself. It had been one of the major virtues of Husserl's phenomenology that it had made this notion thematic in describing the world as a horizon which "refers to the infinite and yet renders it meaningful and finite [*sinngebend wie endlich zu wirken*]."[50] But Luhmann nevertheless felt that the metaphor of the horizon had become inadequate for a functional analysis of the concept of the world in systems theory, and would need to be extended to incorporate the unique challenges presented by complexity. In

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[47] Luhmann, 86–87.

[48] Niklas Luhmann, "Soziologie als Theorie sozialer Systeme," in *Soziologische Aufklärung 1: Aufsätze zur Theorie sozialer Systeme* (Opladen: VS Verlag für Sozialwissenschaften, 2009), 152.

[49] Luhmann, "Soziologische Aufklärung," 98.

[50] Luhmann, "Soziologie als Theorie sozialer Systeme," 145.

"Sociology as a Theory of Social Systems," he wrote that one needed to reformulate the insight contained in the horizon metaphor into a "functional reference problem."

2. The World as Problem: Contingency and the Intersubjective Constitution of World and Meaning

Blumenberg's reading of phenomenological contingency as an expression of "problematizing" the world as given thus resonated with Luhmann's earlier insistence that functionalist methodology could only be justified with reference to "problems." Phenomenology was thus a forerunner of functionalist methodology as a heightened form of "problem consciousness." To problematize the world at once presupposed—and revealed—its contingency, and thus also furnished a systems theory of society with its most encompassing "functional reference problem." The problem of the "social contingency of the world" that was "still hidden" after more than two centuries of Enlightenment was thus the most radical point of departure for any sociology worthy of the moniker, because the very notion of "society," Luhmann claimed, could only be understood with reference to this problem of contingency and complexity.

It is therefore no accident that references to contingency abound in "Sociological Enlightenment," the first text since 1962 in which Luhmann explicitly praised phenomenology as a forerunner of his own approach to functionalist systems theory. Luhmann's reticence to appeal to phenomenology in the mid-1960's may have had something to do with the ways it had so far been appropriated for sociology. In Luhmann's view, most extant applications of phenomenology had failed to heed what he considered Husserl's truly "decisive discovery… namely, that of the intersubjective constitution and therefore the social contingency of the world as such."[51] As Luhmann put it in 1968, "The constitution of meaning and world—and here Husserl's struggle with this problem reached its peak—must be recognized as an intersubjective achievement. Intersubjective constitution, however, means nothing other than the social contingency of the world, namely, the contemplation [*Betrachtung*] of the given from the perspective of other possibilities."[52] But even Alfred Schutz, who sociologized Husserl by insisting on the centrality of intersubjectivity even before the latter wrote *Crisis*, merely accepted intersubjective constitution of the world as a "fact." In this respect, Schutz repeated the mistake of Durkheim, who had also "conceal[ed] [*verdeckt*] social contingency through his thesis of the objective substantiality [*objektiven Dinghaftigkeit*] of social realities."[53] Parsons, in Luhmann's view, had also perpetuated this error by positing meaning as an always-already given fact of social life. Husserl's original formulation of the world concept, however, suggested something more radical. Insofar as it is viewed in its contingency, the world "is naturally not a fact that once took place, but rather a problem."[54] Or as he wrote in "Sociology as a Theory of Social Systems," also published in 1967, "The world becomes a problem not in view of its being, but rather in view of its complexity," that is, in terms of the excess of possibilities appresented in every "registering" of the world.[55]

Unlike naïve naturalism, theories such as Weber's Durkheim's, Schutz's, and Parsons's had certainly recognized some relationship between world and meaning. But they had failed fully to grasp its implications—the contingency of the world—because they had reduced meaning to a

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[51] Luhmann, "Soziologische Aufklärung," 98.
[52] Luhmann, "Moderne Systemtheorien als Form gesamtgesellschaftlicher Analyse," 9.
[53] Luhmann, "Soziologische Aufklärung," 87.
[54] Luhmann, 112 fn 28.
[55] "The unreflective presupposition of the concept of meaning belongs to the shortcomings of structural-functional theories projected on the basis of a theory of action. It takes meaning to be a (if also subjective) quality of actions. The reference to the world in all meaning remains hidden." Luhmann, "Soziologie als Theorie sozialer Systeme," 146.

"quality of actions" rather than as the referential structure of the world.[56] Although through meaning the things in the world "show up" in the first place, it also had to be seen as a kind of *solution* to the problem of world contingency.

Although he would not fully work out his theory of meaning until his debate with Habermas in 1971, already in 1967 Luhmann proposed the basic elements of his approach to the problems of meaning and world in a manner that bears the imprint of his engagement with Blumenberg's reading of Husserl. Like Blumenberg, Luhmann understood the constitution of the world in the medium of meaning as a paradoxical play of concealment and disclosure, reduction and production, identity and difference: "meaning forms identities only in the horizon of the world with comprehensible [*nachvollziehbarer*] reference *to* other possibilities," such that, although "meaning is selection from other possibilities," it is "therefore at the same time reference to other possibilities. The 'out-of-which' [*Woraus*] of selection, the reduced complexity, remains preserved in meaning."[57] Like Husserl's concept of the horizon, the selectivity of meaning does not annihilate, but merely conceals excess possibilities: "The world persists despite reduction, and is not reduced [*zusammengezogen*] to the immediately-relevant. Only through selection mediated by meaning can systems constitute a world for themselves and in this sense be 'subject.'"[58]

But is there not a contradiction here between the constitution of a world and its selection? How does a world that is constituted in its possibilities as meaningful by a subject—whether consciousness or social system—also become a problem that can only be solved by the selectivity of meaning? Habermas would object to Luhmann's account of meaning for precisely this reason. For Luhmann no less than Husserl, the fact that the world is "constituted" through meaning does not simply mean that it is "created" in its objective existence. The world is not just factual being; it is the complexity of other possibilities. And as a system becomes more complex, it can do more things, that is, not only is the scope of its possible experiences widened, so is the scope of it actions. And this makes its world more complex. In other words, systems that use meaning do not simply select from already constituted possibilities; they also constitute those very possibilities in their being.[59]

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[56] Luhmann, 146.

[57] Luhmann, 146–47.

[58] Luhmann, 147.

[59] Luhmann recognized that the ambiguity of the concept of possibility may have been partially responsible for the difficulties encountered in making sense of meaning as a medium that simultaneously selects and produces, reduces and expands. As the core component of the definition of both contingency and complexity, the meaning of possibility was no small matter. Especially in the early 1970's, Luhmann make frequent reference to its fraught history in the course of explaining contingency and complexity, usually claiming that the definition of possibility in modal logic could not fully account for its properties as encountered in phenomenology and cybernetics. But he also recognized that a fully convincing account of possibility had not yet been formulated. Systems theory would have to operate for the time being with only provisional accounts of possibility, contingency and complexity. As he put it when discussing the concept of contingency in his essay on generalized media, "The scientific status of these 'other possibilities' is, bluntly stated, unknown. Its clarification will be one of the most important theoretical and methodological tasks of social sciences in the future." Luhmann, "Generalized Media and the Problem of Contingency," 528; Despite these limitations, Luhmann made it clear that the concept of possibility always had to refer to the concept of systems: "The concept of possibility provides, namely, that additional conditions and limits of possibility could be specified. Such a specification must, however, reach back to systems, whose structure enables the possible [das Mögliche... ermöglicht] as determinate or determinable. The concept of complexity always designates a relation between system and world, never a state of being." Luhmann, "Soziologie als Theorie sozialer Systeme," 146; Indeed, for all the importance of the category of possibility to his investigations, Husserl equivocated in his use of the term. In a useful recent study, Andrea Zhok has enumerated as many eleven qualifications of possibility in Husserl's work, which she distilled into four primary versions. These include "ideal possibility", "'logical possibility'", "'real possibility'", "'pure possibility'", "'bound possibility'", "'motivated possibility'", "'empty possibility'", "'open possibility'", "'free possibility,'" "'practical possibility',' and "presumptive possibility." As Zhok notes, such equivocation had also produced substantial controversy over the metaphysical status of possibilities in Husserl's work: were these possibilities transcendent in the "Platonic-Leibnizian" sense that they

Here he translated the concealment/discovery dialectic into the "registering [*Erfassung*] and reduction [*Reduktion*] of world complexity."[60] Systems constitute themselves through distinction between inside and outside by "forming and holding constant islands of lesser complexity in the world."[61] Paraphrasing Ashby's Law of requisite variety, Luhmann asserted that the complexity of the world and the complexity of systems always correspond to one another.[62] A system can only "register" its world as an environment [*Umwelt*], that is, as an already reduced scope of possible ways in which the world can show up, a scope which corresponds to the complexity of their own structure. But unlike mechanical or organic systems, whose physical structure fixes the scope of their corresponding environments, meaning-using systems can vary the complexity of their environment considerably.[63] Meaning just *is* the selective—and therefore contingent—reduction of world complexity. But since selectivity of meaning is not fixed, it also "preserves" what it excludes: "The world is not lost through reduction to meaning. The selectivity of every step of experience and action thus remains doubly preserved: as reduction and as complexity, as meaning and as world."[64]

Meaning thus makes it possible for psychic and social systems to "evolve" much more quickly than, for example, organic systems. Like any other system, the complexity of a social system's environment depends on the complexity of the systems own structures. But these structures are far more flexible because they are formed and reproduced in the medium of meaning, that is, they are not 'things,' but provisional identities that refer to other possibilities. This includes, above all, the very boundary drawn between system and environment, which is continuously redrawn through the medium of meaning. Meaning supports the process of functional differentiation by which systems are able to process increasing degrees of complexity—and thus to develop a more complex world.

Moreover, meaning also enables systems to become *reflexively* aware of the other possibilities they bracket, such that social systems can become aware that their environment—and therefore their own boundary with it—is only every contingently projected. The functional reference problem for social systems is thus more complex than for other kinds of systems, because meaning allows systems to change their own boundaries so as to be able to grasp a more complex environment, that is, to incorporate more of the world into the environment. And precisely this gap between the world and the reduced form in which it is grasped as an environment, like the gap between the lifeworld and the world, exposes systems to the experience the contingency of the world in the form of risk and uncertainty. But it also enables them to achieve something more like Ashby's "ultrastability," since systems can reflexively alter their own boundaries to adapt to the contingencies arising out of the gap between the environment and the world. In short, the overarching functional reference problem of society *as such* lay not in a fluctuating environment, but precisely in the problem of the contingency and limitless complexity of its world.

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preceded the experience that reduced or selected from them, or were they always only constituted in and by experience? The former interpretation would be bedeviled by Husserl's repeated insistence that his was not a Platonic metaphysics; the latter, by contrast, would have to confront the problem of how the world can ever surprise a consciousness that constitutes all of its possibilities, and how these possibilities can appear as the same to a multiplicity of other minds—that is, how multiple consciousnesses can refer not only to the same empirical objects, but to possibilities. Andrea Zhok, "Possibility and Consciousness in Husserl's Thought," *Husserl Studies* 32, no. 3 (October 2016): 213–35.

[60] "If one problematizes the world in the manner discussed here as the most extreme complexity, then one can also say: meaning serves the registration and reduction [*Erfassung und Reduktion*] of world complexity, and only in this way can it orient experience and action." Luhmann, "Soziologie als Theorie sozialer Systeme," 147.

[61] Luhmann, 147.

[62] William Ross Ashby, *An Introduction to Cybernetics* (J. Wiley, 1956). See my discussion in Chapters Seven and Eight.

[63] Luhmann, "Moderne Systemtheorien als Form gesamtgesellschaftlicher Analyse," 147–48.

[64] Luhmann, "Soziologie als Theorie sozialer Systeme," 163.

3. Technization, Double Contingency and Symbolically Generalized Media

Despite these affordances of meaning, the complexity of a social system is limited by the structural principles of its organization; not every meaning-using system can process the same degree of complexity. Meaning simply has different affordances with respect to the structures that can form within it. The preceding section discussed the constitution of meaning by "society" as analogous to its constitution by transcendental subjects, emphasizing the contingency of the world as the functional reference point according to which society draws its boundaries. But this perspective on contingency elided the difficult question of the ordering relationship between two different system levels, between psychic systems and social systems. That is, how does the intersubjective constitution of meaning coordinate the individual and society? Social systems not only constitute themselves by reducing complexity at their boundaries, but through regulating the flow of communications between human beings in everyday interactions, which Luhmann referred to as the necessity of "ensuring the *transmissibility* of *selective achievements*."[65]

Previous chapters have already outlined how Luhmann provisionally approached this question through 1966, before he explicitly embraced Husserl's transcendental theory of meaning. But after having been guided by Blumenberg to recognize the historical centrality and significance of contingency within that theory, Luhmann found new resources through which to begin offering a more robust quasi-transcendental account of the constitution of complex, differentiated social order in terms of a theory of communication systems. For example, in "Sociology as a Theory of Social Systems" (1967), Luhmann generalized some of his conclusions from his investigations into the administrative use of conditional programs to describe the selective advantages of the "stepwise" reduction of complexity by means of "procedure."[66] This idea contained the germs of the argument of his first major work in political sociology, the controversial *Legitimation through Procedure* (1969).[67] The structure-building function of such "algorithmic" techniques also prepared Luhmann's reception of Blumenberg's account of technization and contingency. In *Sociology of Law* (1972), for example, Luhmann explicitly connected his notion of conditional programs to the "automatic triggering functions" Blumenberg described as the phenomenological core of the process of technization. In a footnote Luhmann wrote, "It is remarkable that Hans Blumenberg, *Lebenswelt und Technisierung*… in the explanation of this technical concept… uses an example which comes particularly close to the case of a conditional program: the reduction of human action to pure release functions [*Auslöserfunktion*] for complex mediated effects."[68]

Blumenberg's phenomenological justification of technique-as-method resonated for Luhmann beyond its close affinity with his algorithmic account of codes and procedures, which is only one "institutional" solution to the problems of complexity and contingency. But as societies became more complex, the informational demands posed to finite, individual consciousness only increased, requiring additional and even more diffuse modes of communication to make up for the limited selectivity of individual consciousness. Following a similar logic to the triggering function of conditionally-programmed procedures, systems also use what Luhmann in 1967 first referred to as

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[65] Luhmann, 160.

[66] Luhmann, 151.

[67] Niklas Luhmann, *Legitimation durch Verfahren* (Frankfurt am Main: Suhrkamp, 2013); For a brief review of the substance of the controversy, see Stefan Machura, "Niklas Luhmann's 'Legitimation durch Verfahren' im Spiegel der Kritik," *Zeitschrift für Rechtssoziologie* 14 (1993): 97–114.

[68] Niklas Luhmann, *A Sociological Theory of Law*, ed. Martin Albrow, 2 edition (Routledge, 2016), 350 fn 52; Niklas Luhmann, *Rechtssoziologie* (Rowohlt, 1972).

"communication media", but which only a few years later, adopting one of Parsons' newer terms, he came to call "symbolically generalized media."[69]

Only in the course of developing his theory of the latter around 1970, it seems, did Luhmann fully come to embrace Blumenberg's larger historical and philosophical narrative of the roots of modern science and technization in the early modern exposure to the maw of contingency. Luhmann's letter to Blumenberg, reproduced in the epigraph, was evidently occasioned by Luhmann's efforts to compose the essay "Generalized Media and the Problem of Contingency," written in English in 1970 for a Parsons Festschrift that was not published, however, until 1976.[70] This essay appropriated and radicalized the originally Parsonian concept of "double contingency" in order to challenge Parsons's Durkheimian account of the normative integration of social order in complex societies as well as to evolve Parsons' own account of generalized media. In its original version, Parsons understood by double contingency the "infinity problem" engendered by the mutual "dependence" of two actors' behavioral expectations on one another: in order to act, ego must anticipate alter's anticipation of ego's behavior, and so on ad infinitum. How could such heterogeneous expectations ever be coordinated and stabilized such that cooperative action could take place?[71] A variant of the Hobbesian problem of social order, the situation of double contingency was not so much a problem as an occasion for arguing for the function of institutionalized norms in preventing double contingency from being a problem.[72]

Following Durkheim and the functionalist anthropology he helped inspire, Parsons had simply assumed the integrative role of normative meaning as a solution to this problem. Such a state of nature simply never existed; human beings had only ever confronted one another with some shared, underlying set of norms to ensure the "complementarity of expectations" between multiple subjects such that communication and cooperation could emerge and evolve. In other words, the very existence of society, in Parsons' view, was predicated on the problem of contingency having been always already solved by the normative power of shared symbolic systems. But simply asserting this to be the case, Luhmann contended, would be to overlook the mechanism by which norms actually function with respect to the full scope of the problems of contingency and complexity. Following the model of Husserl's transcendental reduction, symbolic systems, like the lifeworld, could not be taken for granted, but had to be probed with respect to their conditions of possibility. Parsons' "solution" simply risked overestimating the role of norms in solving double contingency.

Most importantly, however, Parsons overlooked the fact that double contingency is never "solved" once and for all, and is constantly reproduced at the heart of every interaction system. This only became more, not less, true in rapidly changing, diverse, and structurally complex societies like the ones Parsons had made his name studying. But when Parsons developed his "macro-sociological" account of the role of generalized media in coordinating action at the level of large, differentiated social systems, he left behind the problem of double contingency arising at the level of interaction systems between individuals. He wrote here instead of "double interchange," which referred only to communication between function systems like the economy and politics. In essence, generalized media amounted to symbolic complexes that coordinate the actions of actors in different subsystems by establishing the "rules" for the "interchange" of their respective ends and means. They establish the paths by which, for example, my 'political' ends can be interchanged with your 'economic' means, and thereby reconcile our respective interests. Parsons schema, however,

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[69] Luhmann, "Soziologie als Theorie sozialer Systeme," 159–63.

[70] Jan J Loubser et al., eds., *Explorations in General Theory in Social Science: Essays in Honor of Talcott Parsons.*, 2 vols. (New York: Free Press, 1976).

[71] R. Vanderstraeten, "Parsons, Luhmann and the Theorem of Double Contingency," *Journal of Classical Sociology* 2, no. 1 (March 1, 2002): 77–92.

[72] Luhmann, "Generalized Media and the Problem of Contingency," 508.

presupposed that action has a fundamentally instrumental structure, which Luhmann had already disputed as far back as 1964 for having presupposed too much—above all, the ontological metaphysics of causality.[73]

Consequently, Luhmann reasoned, Parsons' "line of thought renders the meaning of 'contingency' inadequately and runs the risk of missing it completely." Here Luhmann referred, of course, to that meaning Blumenberg had excavated in multiple publications. And that, evidently, is why Luhmann wrote to Blumenberg in late 1969 to inquire about the English meanings of contingency. For even the emaciated concept employed by Parsons preserved traces of contingency's deeper history. By bringing this history to light, Luhmann hoped he could explain why Parsons missed its greater significance, while also indicating what might be gained by recovering it. "Parson's choice of the concept of contingency," after all, "was not a matter of contingent choice."

Following standard English usage, Parsons deployed "contingency" as an equivalent of "dependency," as in the reciprocal or "double" dependency of different agents' ends and means upon one another.[74] In fact, Blumenberg's historical research made it possible to see that this notion of dependency was simply the legacy of a narrow, causal-metaphysical interpretation of the concept of contingency as selectivity. For both Blumenberg and Luhmann, in the latter's distilled definition, "contingency means that being depends on selection which, in turn, implies the possibility of not being and the being of other possibilities. A fact is contingent when seen as a selection from other possibilities which remain in some sense possibilities despite a selection."[75] The notion of contingency as dependency derived from the theological-causal interpretation of this idea, according to which the agent of selection is a "cause." Appealing to the research of Blumenberg and others, Luhmann recounted its conceptual history; how, in the scholastic theological tradition, "*Contingens* was used in a double sense as a general category of modal logic and as a term which includes causal selection as the factor which decides between being and not-being."[76] The paradigm for this selection, of course, the action of God in bringing the world into existence through the causal action of His will, an act of "selecting" this world out of all the other possible worlds He could have created. The contingency of the world thus also referred to the occasionalist thesis of the world's dependency on God's will for its ongoing existence. And in a nod to Leibniz—before he recognized that the *Theodicy* was already quite modern—Luhmann noted that this logic of contingency "led the pious to look to God for the elimination of infinite other possibilities and for a guarantee that the selected world was the best of all possible worlds." Meanwhile, and by contrast, Hobbes and Descartes had "secularized the problem of selectivity," and made it immanent to individual consciousness and the social process, respectively.[77]

Hobbes' resolutely materialist account of the spontaneous emergence of the political state out of the state of nature acted as a conduit for this causal sense of social contingency to make its way into the heart of modern social theory. But efficient causality, as Luhmann had argued earlier in the 1960's, already embodied a historically contingent achievement of human societies, a functional means to organize the world's complexity. To fully comprehend the problem of double contingency at the heart of all social interaction and its role in the genesis of meaning, norms, institutions, media, and, above all, social systems, it was imperative to return to the universal problem of contingency in terms of the abstract logic of selectivity, free of causal-ontological prejudices. Contingency had to be

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[73] Niklas Luhmann, "Zweck — Herrschaft — System: Grundbegriffe und Prämissen Max Webers," *Der Staat* 3, no. 2 (1964): 129–58; Luhmann significantly expanded and deepened this argument in 1968 in *Zweckbegriff und Systemrationalität: über die Funktion von Zwecken in sozialen Systemen* (Frankfurt (Main): Suhrkamp, 1973).

[74] Luhmann, "Generalized Media and the Problem of Contingency," 508.

[75] Luhmann, 509.

[76] Luhmann, 508.

[77] Luhmann, 509.

understood as "subjective and universal at once," as the potential of every subject to *negate* and *retain* possibilities of acting and experiencing simultaneously. From this perspective, "every fact may be seen as contingent," so long as there was a subject to negate it and project other possibilities.[78]

"Double contingency" thus meant more than a mere additive "doubling" of two independent subjective experiences of contingency, and more than simple "interdependence" of two subjects. Moreover, it "does not double the world and does not construct two separated realms of contingency." Nor, finally, is it "simply a problematical fact inherent in the nature of interaction," as Hobbes had assumed. Rather, such "doubling comprehends the whole structure" of the interaction, by which the selectivity of each subject, in projecting, negating, and preserving the possibilities of its own "encompassing world," constitutes a common world by making those possibilities available for the selective potential of other subjects (Luhmann sometimes called this "double selectivity.").[79] In other words, double contingency described the intersubjective constitution of meaning and world.[80] As a "conceptual framework," it would permit the sociologist "to understand evolutionary gains as higher forms of problematization and organization of selective processes."[81]

This also means that double contingency is in no way eliminated through successful interaction. Quite the contrary, contingency is only heightened whenever ego uses alter's selectivity to reduce the complexity of its world. Alter's (possible) negations of ego's own projected possibilities can usefully narrow the scope of how ego chooses to act or experience the world. But then this choice becomes ever more contingent and *risky* because ego must simply assume the correctness or usefulness of alter's selections. Ego's environment expands and becomes more complex because it can now refer to the possibilities of your environment, even though our possibilities also mutually limit one another. Hence, the structure of double contingency in interaction "has the double aspect of high achievement and high risks. It makes the *selectivity* of other subjects *selectively available* at increasing risks."[82]

What, however, did Luhmann mean by "risks" here? The world constituted in the situation of double contingency expanded the complexity of the world because, in appropriating alter's selectivity—for example, ego accepts alter's account of an event ego did not witness as truth—together the two form a "selection chain," which grants ego access to a greater range of possible experiences, that is, to a much larger world. This is what Luhmann referred to as the "high achievement" of double contingency. But ego must also assume the heightened *risk* that alter's report may turn out to be inaccurate. In other words, "The selection chain may be broken and expectations disappointed." And only *here*, with respect to disappointment, did the function of norms truly appear with respect to double contingency. Norms are one means to maintain the chains that transmit selective achievements by maintaining certain expectations *in the face of disappointment*, such as my trust in you as a generally trustworthy reporter of world events. I could just as well "learn" from my mistake, and decide to no longer trust you; but then I assume the burden of finding out the "truth" for myself, making greater demands upon my own conscious selectivity. Trust in others, as the title of a short 1968 book dedicated to the topic argued, was among the most effective mechanisms to reduce the social complexity of the world for the individual—and thus

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[78] Luhmann, 509.

[79] Here Luhmann uses the term "encompassing world," usually used along with "surrounding world" to translate Husserl's *Umwelt*, rather than the term "environment," which usually translates Luhmann's *Umwelt* because that was the word he used to render the systems-theoretical concept of "environment." Whether Luhmann here meant to distinguish the "encompassing world" of consciousness from the "environment" of systems is not clear from the context.

[80] Luhmann, "Generalized Media and the Problem of Contingency," 509.

[81] Luhmann, 509.

[82] Luhmann, 509.

expand it at the level of society.[83] Just as he wrote of structure the year before, Luhmann held that "Trust rests on illusion."[84] "One who simply hopes has confidence despite uncertainty. Trust reflects contingency. Hope ignores contingency."[85]

Usually the choice between norms and learning is not a matter of conscious or even individual choice. Norms are often simply embedded in experience as trust in the world itself. Citing Berger and Luckmann's *Social Construction of Reality* in "Sociology as a Theory of Social Systems," Luhmann acknowledged that less complex societies can accomplish the transmission of selective achievements through reference to a "common 'construction of reality,'" involving "assumptions about the being and nature of the environment," which conceal other possibilities, other alternatives, from view.[86] In Husserl's terms, social order in such societies was procured through the normative performances of the lifeworld (Berger and Luckmann were, after all, students of Schutz, with whom Luckmann would later cowrite an entire book on the lifeworld).[87]

The 'lifeworldly' affordance of trust in the world, however, could not be sustained in modern functionally differentiated societies. With the reliability of the natural cosmos replaced by the artificial and rapidly fluctuating society as the basis of the lifeworld (the "environment" of human consciousness), trust in the world had to be replaced by trust in society, and trust in individuals gradually overshadowed by trust in systems. Luhmann harbored no illusions about technology as a vector for permanently reducing uncertainty. Despite the promises of enlightened technocrats of all stripes to manage the uncertainty of the natural world through technical interventions, "it is not to be expected that scientific and technological development of civilization will bring events under control, substituting mastery over things for trust as a social mechanism and thus making it unnecessary. Instead, one should expect trust to be increasingly in demand as a means of enduring the complexity of the future which technology will generate."[88] Larger and more diverse societies depend on the construction of ever more elaborate and thus *risky* selective chains.

Directly citing Blumenberg's argument about technization, Luhmann next argued that symbolically generalized media, including money, power, truth, love, and art, evolve to solve precisely this problem.[89] "They are meaningful constellations of combined selectivity which can be signified by words, symbolized, and codified legally, methodologically or otherwise."[90] They figure as more abstract, reliable and fungible techniques for transmitting selective accomplishment in complex, technized and functionally differentiated societies. It is the core function of generalized media to enable the continued "transmission of selectivity" under conditions of extreme complexity, by easing the burdens involved in forming selection chains. Since human consciousness cannot

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[83] Niklas Luhmann, "Trust: A Mechanism for the Reduction of Social Complexity," in *Trust and Power*, ed. Michael King and Christian Morgner, trans. Howard Davis, John Raffan, and Kathryn Rooney (Cambridge, UK: Polity Press, 2017).
[84] Luhmann, 36.
[85] Niklas Luhmann, *Trust and Power*, ed. Michael King and Christian Morgner, trans. Howard Davis, John Raffan, and Kathryn Rooney (Cambridge, UK: Polity Press, 2017), 27.
[86] Luhmann, "Soziologie als Theorie sozialer Systeme," 61–62.
[87] Alfred Schutz and Thomas Luckmann, *The Structures of the Life-World* (Northwestern University Press, 1973).
[88] Luhmann, "Trust: A Mechanism for the Reduction of Social Complexity," 18.
[89] Luhmann would later dedicate multiple monographs to each of these respective media (with the exception of money and truth, which Luhmann explored in the context of his writings on the economic, science, and education systems. See, for example, Niklas Luhmann, "Power," in *Trust and Power*, ed. Michael King and Christian Morgner, trans. Howard Davis, John Raffan, and Kathryn Rooney (Cambridge, UK: Polity Press, 2017); Niklas Luhmann, *Art as a Social System*, trans. Eva M. Knodt (Stanford University Press, 2000); Niklas Luhmann, *Love as Passion: The Codification of Intimacy* (Stanford, Calif.: Stanford University Press, 1998); Niklas Luhmann, *Liebe: Eine Übung*, ed. André Kieserling, 1. Aufl (Frankfurt am Main: Suhrkamp, 2008).
[90] Although closely related, Luhman did not include trust among these symbolically generalized media because it operates differently. Whereas these media "transmit contingent selections which are perceived as *past* performances," by contrast, "Trust refers to *future* contingencies." Luhmann, "Generalized Media and the Problem of Contingency," 512.

survey the entire chain of selections involved in every communication, generalized "symbols" step in to represent common patterns in the formation of these chains, "motivating" their acceptance without the need for complete justification or intuitive insight into their full meaning. Just like programs and procedures, they are another form of simplifying abstraction, which, when recognized as valid and legitimate, allow individuals or subsystems to accept a given communication without having to survey the entire selection chain that produced it. In other words, generalized media accomplish the "social organization of individually dispersed human selectivity" at higher levels of contingency and complexity.[91]

Money was perhaps the paradigmatic case of a symbolically generalized medium that coordinates the selectivity of actions and experience in a diffuse and distributed fashion.[92] Money presents itself as an unquestionably valid means of transmitting selections. In Luhmann's reading, the particular selectivity of each medium presupposed the differentiation of "action" and "experience," which he considered to be functionally equivalent modes of selection. Whether a selection counts as one or the other depends on an attribution made by the system: actions are selections the system attributes to itself (ego), while experiences are selections attributed to another system or to a system's environment (alter).[93] Each medium involves a selective transmission from *alter's* action or experience to *ego's* action or experience. Money, for example, involves alter's action (a payment) selecting ego's experience (the recognition of alter's selective interest in acquiring something). In principle, possession of money affords alter an extremely wide scope of choice (selectivity), which is, as it were, 'expended' by making a payment in exchange for some kind of good. In making a payment, alter forfeits the possibility of another choice that a given quantity money affords. Money only motivates such an acceptance because it not only communicates a selection, but it also "transmits the freedom of selection." Unlike power, for instance, money does not *necessarily* entail a selection of ego's action by alter's action of payment. Ego accepts that the selection took place, but is not compelled, in turn, to respond with any specific action of its own.

A few years later, Luhmann made his dependence on Blumenberg's reading of Husserl even more explicit by including a short chapter in *Power* (1975) bearing the title "Lifeworld and Technique," which basically reads as a gloss on Blumenberg's similarly titled essay. Due to the especially close resemblance of Luhmann's vocabulary to Blumenberg's, it is worth reproducing some key quotes from the text. For example, Luhmann described the lifeworld as a "horizon of non-actualized possibilities" and wrote of the emergence of technique out of its "problematization." Additionally, Luhmann saw "the essence of such technical forms—again with reference to Husserl but without following his dismissal of techniques from the standpoint of transcendental thought—in relieving the processes of experience and action of the burden of perceiving, formulating, and explicating all the references to meaning which are involved." And although technique often "takes the form of making the processing of information automatic and calculable," as he demonstrated in *Law and Automation*, nevertheless, "this concept of technique has a much broader sociological foundation than the concept of machine technology."[94] Because, more important than machines were the generalized media, essentially "a manifestation of technique," which made more complex forms of social order possible. But where he had previously emphasized the construction of

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[91] Luhmann, 511.

[92] In fact, for Parsons it was the model from which he constructed his account of the others. But Parsons had constructed his theory of generalized media deductively with respect to their corresponding function systems—money to the economy, power to politics, etc—while these function systems were themselves deduced from the so-called "AGIL schema." By contrast, Luhmann viewed these subsystems as evolutionary "concretizations of different ways to solve the problem of double contingency." Luhmann, 515.

[93] Luhmann, 515.

[94] Luhmann, "Power," 179.

selective chains, "of equal importance" to the stability of complex social system "is the possibility of symbolizing possibilities in such a way that the selection process can react not just to what is actual and real but also to what is possible, or to the actual and real becoming something different."[95] To this, Luhmann appended the following footnote: "If we could, together with Blumenberg (1972), imagine a lived world completely without contingencies, we could even say that technique constitutes contingency in the first place. In that case, obviously, phenomenology itself, to the extent that it is looking for truth according to logical premisses, must be understood as technique."[96]

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In summary: "Lifeworld and Technization" presented Luhmann with a notion of the emergence of an idea of modern technoscience as a historical process enabled by the institutionalization of method; and method, in Blumenberg's presentation, was distinguished by its signature role in the intersubjective constitution of a world of meaning. Luhmann essentially extended Blumenberg's philosophical-historical account of the origins of modern science as a *self-organizing and intergenerational system of communication* to the evolution of modern functionally differentiated social systems. Both, essentially, had been catalyzed by exposure to the contingency of the world, which had been made manifest by late medieval nominalism.

[95] Luhmann, 179.
[96] Luhmann, 181; "Blumenberg (1972)" refers to the essay "The Life-World and the Concept of Reality."

10
THE DIELECTRIC OF ENLIGHTENMENT
MEANING AND CONTINGENCY IN THE LUHMANN-HABERMAS DEBATE, 1968-1973

Intellectual history loves a good debate. Making for captivating storytelling, the staged clash of titans imparts a natural dramatic tension, while the agonistic quality of the intellectual struggle can be made to resemble the adversarial staging of courtroom procedure. The classic encounter, what Germans call an *Auseinandersetzung*, promises a clarification of positions, each side drawing on every bit of its intellectual resources to outwit its opponents; acolytes and supporters line the figurative sidelines, and continue the fight outside the venue. Rarely, however, did these debates have the historical effect they seemed to promise. While the 1929 Davos debate between Heidegger and Cassirer has "ramified" into near-mythic status in the annals of continental philosophy,[1] the latter twentieth century, by contrast, is littered with highly anticipated sparring matches that resulted in neither a clear victor nor mutual exhaustion, but rather a shrug: the Gadamer-Derrida debate;[2] Gadamer-Habermas debate;[3] and the famous yet inconclusive "positivism debate" between Adorno, Karl Popper, and their followers in the early 1960's.[4]

By contrast, the Habermas-Luhmann debate, presented to the West German public in the form of a little red four hundred-page book published in 1971, has left to posterity something different. The popular and suggestively titled *Theory of Society or Social Technology?*, published by the new Suhrkamp *Theorie* series, would find a home on the bookshelves of aspiring intellectuals in the coming decades.[5] Viewed by contemporaries as a resounding success, it symbolized an intellectual peak of German social theory in the 1970's, yielding three "supplementary" volumes of commentary penned by fellow theorists between 1973-1975.[6] But few owners of the original book would actually read, let alone study its intimidatingly dense and detailed contents. The text became a prop, something one had to own and display as a mark of intellectual cultivation and seriousness, but whose labyrinthine arguments proved resistant to discussion in the noisy cafes and bars frequented by the young student activists. Ever since, there has been no shortage of fascination with the event,

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[1] Peter E. Gordon, *Continental Divide: Heidegger, Cassirer, Davos* (Cambridge, Mass: Harvard University Press, 2010).
[2] Diane P. Michelfelder, ed., *Dialogue and Deconstruction: The Gadamer-Derrida Encounter* (Albany: State University of New York Press, 1989); Richard J. Bernstein, "The Conversation That Never Happened (Gadamer/Derrida)," *The Review of Metaphysics* 61, no. 3 (2008): 577–603.
[3] Martin Jay, "Should Intellectual History Take a Linguistic Turn? Reflections on the Habermas-Gadamer Debate," in *Fin-de-Siècle Socialism and Other Essays* (New York: Routledge, 1988).
[4] Theodor W. Adorno, *Positivist Dispute in German Sociology* (London: Ashgate Pub Co, 1981); Agnes Heller, "The Positivism Dispute as a Turning Point in German Post-War Theory," trans. Mark Ritter, *New German Critique*, no. 15 (1978): 49–56; Hans-Joachim. Dahms, *Positivismusstreit: die Auseinandersetzungen der Frankfurter Schule mit dem logischen Positivismus, dem amerikanischen Pragmatismus und dem kritischen Rationalismus* (Frankfurt am Main: Suhrkamp, 1994).
[5] Jürgen Habermas and Niklas Luhmann, *Theorie der Gesellschaft oder Sozialtechnologie: Was leistet die Systemforschung?*, ed. Karl Markus Michel (Frankfurt am Main: Suhrkamp, 1971).
[6] Franz Maciejewski, ed., *Theorie der Gesellschaft oder Sozialtechnologie: Beitr. z. Habermas-Luhmann-Diskussion*, Theorie. Theorie-Diskussion. Supplement 1 (Frankfurt (am Main): Suhrkamp, 1973); Wolf-Dieter Narr and Franz Maciejewski, *Theorie der Gesellschaft oder Sozialtechnologie: Beiträge zur Habermas-Luhmann-Diskussion* (Frankfurt am Main: Suhrkamp, 1974); Hans-Joachim Giegel, *Theorie der Gesellschaft oder Sozialtechnologie: System und Krise : Kritik d. Luhmannschen Gesellschaftstheorie* (Frankfurt (am Main): Suhrkamp, 1975).

and just as little consensus over its historical significance, meaning, and consequences.[7] Many at the time saw it as the paradigm of spirited public intellectual debate.[8] Some have picked winners and losers,[9] while others have emphasized or downplayed its importance and uniqueness.[10] One expressed frustration at social theory's alleged usurpation of properly philosophical questions.[11] But very few commentators in later decades actually were concerned with the technical details of the debate, or even appear to have read the volume with any care. The substantial arguments of the original text would be eclipsed by the polemical shadow boxing between the two theorists over the next two and a half decades, in which each reduced the other to a mere caricature: Habermas, the pedantic, anachronistic and utopian humanist, Luhmann the amoral, ironic technocrat and "metabiologist."[12] Habermas and Luhmann's own restaging of the debate in later works into simple, suggestive, and polemical binaries, cemented this polar image of the existence of two self-contained, opposing camps, two Suhrkamp cultures, Frankfurt vs. Bielefeld.[13] Conservative media theorist Norbert Bolz, who sided decisively with Luhmann, even called it a "phantom debate."[14]

But at the time, the debate stood out to their contemporary observers because of its high level of mutual engagement and technical sophistication: polemics and ad hominem attacks were kept to a relative minimum, compared to the missives the two lobbed at one another over the following decades. Many of the contributions in the supplemental companion volumes recognized this outstanding quality. Its sophistication may have contributed not only to its strange reception, but also to the misunderstandings that greeted these essays. Even such a renowned scholar as Wolf Lepenies remarked on the exceptional difficulty of the texts: "The four hundred page volume poses immense challenges to one's erudition, concentration and endurance, even for a reader," like

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[7] Alexander Petring, "Gejammer vs. Worthülsen: Die Luhmann-Habermas-Kontroverse Feierte Fröhliche Urständ.," *WZB Democracy Blog* (blog), accessed April 17, 2016, https://democracy.blog.wzb.eu/2014/08/29/gejammer-vs-worthuelsen-die-luhmann-habermas-kontroverse-feiert-froehliche-urstaend/.

[8] Wolf Lepenies, "Die Debatte zwischen Jürgen Habermas und Niklas Luhmann - 2. Alteuropäische Tradition und die Frage: Ist Systemtheorie eine Ideologie?," *Frankfurter Allgemeine Zeitung*, October 12, 1971; Klaus Eder, "Komplexität, Evolution und Geschichte," in *Theorie der Gesellschaft oder Sozialtechnologie: Beitr. z. Habermas-Luhmann-Diskussion*, ed. Franz Maciejewski, Theorie. Theorie-Diskussion. Supplement 1 (Frankfurt (am Main): Suhrkamp, 1973).

[9] William Rasch, "Theories of Complexity, Complexities of Theory: Habermas, Luhmann, and the Study of Social Systems," *German Studies Review* 14, no. 1 (February 1, 1991): 65–83; Norbert Bolz, "Niklas Luhmann und Jürgen Habermas: Eine Phantomdebatte," in *Luhmann Lektüren*, ed. Dirk Baecker, Wolfram Burckhardt, and Niklas Luhmann (Berlin: Kulturverlag Kadmos, 2010); Eva Knodt, "Toward a Non-Foundationalist Epistemology: The Habermas/Luhmann Controversy Revisited," *New German Critique*, no. 61 (January 1, 1994): 77–100; Friedrich W. Sixel, "The Problem of Sense: Habermas v Luhmann," in *On Critical Theory*, ed. John O'Neill, A Continuum Book (New York: Seabury Press, 1976).

[10] Karl Hermann Tjaden, "Bemerkungen zur historisch-materialistischen Konzeption der Struktur gesellschaftlicher Systeme," in *Theorie der Gesellschaft oder Sozialtechnologie: Beitr. z. Habermas-Luhmann-Diskussion*, ed. Franz Maciejewski, 1. Aufl, Theorie. Theorie-Diskussion. Supplement 1 (Frankfurt (am Main): Suhrkamp, 1973).

[11] Karl Otto Hondrich, "Systemtheorie als Instrument der Gesellschaftsanalyse: Forschungsbezogene Kritik eines Theorieansatzes," in *Theorie der Gesellschaft oder Sozialtechnologie: Beitr. z. Habermas-Luhmann-Diskussion*, ed. Franz Maciejewski, 1. Aufl, Theorie. Theorie-Diskussion. Supplement 1 (Frankfurt (am Main): Suhrkamp, 1973).

[12] Jürgen Habermas, *The Philosophical Discourse of Modernity: Twelve Lectures*, trans. Frederick G. Lawrence (Cambridge, Mass.: The MIT Press, 1990).

[13] Bolz, "Niklas Luhmann und Jürgen Habermas: Eine Phantomdebatte"; Knodt, "Toward a Non-Foundationalist Epistemology"; Sixel, "The Problem of Sense: Habermas v Luhmann"; Philipp Felsch, *Der lange Sommer der Theorie: Geschichte einer Revolte*, 3rd ed. (München: C.H.Beck, 2015).

[14] Although Bolz meant by this that there was no real debate because he believes Luhmann was fundamentally uninterested in learning from Habermas. Bolz, "Niklas Luhmann und Jürgen Habermas: Eine Phantomdebatte."

Lepenies, "specialized in the discipline. Nevertheless the discursive discipline of the adversaries and their precise language make the lectures a—if also arduous—pleasure."[15]

Unlike the momentous Cassirer-Heidegger encounter, however, it did not register as a moment of historical reversal between two schools of thought, one ascendant and the other in decline. For while Luhmann's Bielefeld was only getting underway, given an enormous boost by the debate, the already celebrated Frankfurt School's greatest global influence also still lay in the future. The debate, so to say, functioned "dielectrically" rather than dialectically: a metaphor lifted from a technical term in electrical engineering, a dielectric is a material used to electrically insulate an object from its environment because of the way it becomes polarized when placed in an electric field. Taking place in the "force field" of *Kontingenzsinn*, then, the debate served more to isolate Habermas's and Luhmann's respective positions than to synthesize them. Not a contest with a clear victor, the 1971 debate inaugurated a period in West German intellectual life whose shape would be structured by a tense and productive polarity, two rival claims on the legacy of the Enlightenment.

Of course, Habermas' development would be unquestionably influenced by the encounter. Over the following decade he even attempted to combine Luhmann's systems theory with the new theory of universal pragmatics. His 1981 magnum opus, *Theory of Communicative Action*, was the outcome of the sustained encounter with Luhmannian systems theory. And perhaps his best-known work from the 1970's, *Legitimation Crisis* (1973), ought to be read as Habermas's own "last word" in the debate. Though some commentators, including Thomas McCarthy, recognized the impact of Luhmann's work, they often disparaged this influence as the weakest link in Habermas's mature theory.[16] But not only was it a central component of Habermas's development in the 1970's, but it came to influence the work of several other major Frankfurt School figures.[17] Political sociologist Claus Offe a former student and close collaborator of Habermas, devoted much of his work in the 1970's to developing a theory of the crisis of the welfare state, marrying Marxist and systems theoretical approaches.[18] Nevertheless, for all Habermas's efforts to defuse Luhmann's theory by synthesizing their positions, their respective "mature" theories in the 1980's remained just as distinctly opposed as in 1971, if not more so.

There is more than one path out the labyrinth of this debate. But in keeping with the arguments of this dissertation, this chapter proposes to follow the thread of *Kontingenzsinn* derived from Leibniz's twin labyrinths: the problem of the origin of evil (the theodicy) and the problem of infinity.[19] In fact, I argue, Luhmann deliberately staged the debate in these terms. Whereas Habermas used the title to make the debate appear as two rival *political* approaches to social theory, the theory of society versus social technology, Luhmann framed the debate in terms of two possible legacies of Leibniz's *Theodicy*: one, beholden to the antique, onto-theological and ethical metaphysics of 'Old Europe', the other, the hypermodern philosophy of world complexity and contingency. In other words, he framed in in terms of the two dimensions of *Kontingenzsinn*, the vertical dimension of grounds and the horizontal dimension of other possibilities. To the degree that the two social

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[15] Lepenies, "Die Debatte zwischen Jürgen Habermas und Niklas Luhmann - 2. Alteuropäische Tradition und die Frage: Ist Systemtheorie eine Ideologie?"

[16] Thomas McCarthy, "Complexity and Democracy: Or the Seducements of Systems Theory.," in *Communicative Action: Essays on Jürgen Habermas's The Theory of Communicative Action*, ed. Axel Honneth and Hans Joas, Studies in Contemporary German Social Thought (Cambridge, Mass: MIT Press, 1991).

[17] For example, see references to Luhmann in Christoph Menke, *Reflections of Equality* (Stanford University Press, 2006); Christoph Menke, *Law and Violence: Christoph Menke in Dialogue* (Oxford University Press, 2018); Hauke Brunkhorst, "Die kommunikative Wende der Gesellschaftstheorie – Kritische Theorie und Systemtheorie," in *Kritik und kritische Theorie* (Nomos, 2014).

[18] Claus Offe, *Contradictions of the Welfare State*, ed. John Keane, Contemporary Politics (London: Hutchinson, 1984).

[19] Gottfried Wilhelm Leibniz, *Theodicy: Essays on the Goodness of God, the Freedom of Man, and the Origin of Evil*, ed. Austin Marsden Farrer (Charleston, S.C.: BiblioBazaar, 2007).

theorists 'talked past' each other, it is because, for Habermas, their differences were primarily normative and ethical, while for Luhmann they were, above all, scientific and metaphysical.

» 1. Before the Debate «

Luhmann, although still relatively unknown to the wider theory-consuming public in West Germany in 1970, had just begun to gain a more pronounced reputation through his brief stint in Frankfurt substituting for Adorno in the Winter semester of 1968-1969, and for a pair of small debates sparked by his recent forays into more politically sensitive topics.

The first of these was a brief debate with political theorist Frieder Naschold in 1968-1969 over the implications of "complexity" for democracy, essentially an extension of the technocracy debates that preoccupied West German intellectuals for much of the 1960's.[20] In an essay published in December of 1968 in *Politische Vierteljahresschift*, Naschold took Luhmann's recent writings on organizations and especially "political planning" as exemplary of the technocratic and authoritarian tendencies he identified with Helmut Schelsky and much North American social science.[21] On the one hand, he felt that Habermas's normative concept of democracy as embodied in the public sphere did not sufficiently take account of complexity. On the other hand, the real challenges presented by "complexity," he suggested, could easily be made into an excuse for evacuating the normative content of democracy. Instead of presupposing an opposition between democracy and complexity, of which he charged Luhmann, Naschold hypothesized that participatory democracy is, in fact, the best means for managing high complexity. As such, the paramount task facing contemporary political science would be to search for a means to merge complex systems concepts with the "normative concept of democracy" as universal participation.[22]

In his reply to Naschold the following spring, Luhmann essentially agreed: democracy and complexity are not necessarily antagonistic. But for the very same reason, neither are "democracy and technocracy" or "technology and humanity."[23] Luhmann thought that his recasting of decision-making in the framework of "horizontal" *Kontingenzsinn* as "selectivity" would make clear why democracy and technocratic elements were functional correlates. His complex argument essentially boiled down to the claim that while "decision processes are selective reductions running counter to

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[20] Helmut Schelsky, "Planung der Zukunft: Die rationale Utopie und die Ideologie der Rationalität," *Soziale Welt* 17, no. 2 (1966): 155–72; Armin Mohler, "Der Weg der 'Technokratie' von Amerika nach Frankreich," in *Epirrhosis : Festgabe für Carl Schmitt*, ed. Hans Barion et al., vol. 2 (Berlin: Duncker & Humblot, 1968), 579–96; Claus Koch and Dieter Senghaas, eds., *Texte Zur Technokratiediskussion* (Frankfurt am Main: Europäische Verlagsanstalt, 1970); Hermann Lübbe, "Zur politischen Theorie der Technokratie," in *Theorie und Entscheidung: Studien zum der praktischen Vernunft* (Freiburg im Breisgau: Rombach, 1971) (originally published in 1962); Jörg Berkemann, *Technokratie als Ideologie* (Kohlhammer, 1973); Hans Lenk, ed., *Technokratie als Ideologie: sozialphilosophische Beiträge zu einem politischen Dilemma*, Kohlhammer philosophica (Stuttgart: W. Kohlhammer, 1973); For recent accounts, see Dirk van Laak, "From the Conservative Revolution to Technocratic Conservatism," in *German Ideologies since 1945: Studies in the Political Thought and Culture of the Bonn Republic*, ed. Jan-Werner Müller (New York: Palgrave Macmillan, 2003); Gabriele Metzler, *Konzeptionen politischen Handelns von Adenauer bis Brandt: politische Planung in der pluralistischen Gesellschaft* (Paderborn: Schöningh, 2005); Ben Seibel, *Cybernetic Government: Informationstechnologie Und Regierungsrationalität von 1943-1970*, Frankfurter Beiträge Zur Soziologie Und Sozialpsychologie (Wiesbaden: Springer VS, 2016); Dolores L. Augustine, *Taking on Technocracy: Nuclear Power in Germany, 1945 to the Present* (Berghahn Books, 2018).

[21] Frieder Naschold, "Demokratie Und Komplexität: Thesen Und Illustrationen Zur Theoriediskussion in Der Politikwissenschaft," *Politische Vierteljahresschrift* 9, no. 4 (1968): 494–518.

[22] Naschold, 516.

[23] Niklas Luhmann, "Komplexität und Demokratie," in *Politische Planung: Aufsätze zur Soziologie von Politik und Verwaltung*, 1971, 37; originally published as Niklas Luhmann, "Komplexität und Demokratie: Zu Frieder Naschold: 'Demokratie und Komplexität,'" *Politische Vierteljahresschrift* 10, no. 2/3 (1969): 314–25.

complexity… Democracy, in contrast, means the preservation of complexity despite continuous decision-making, the preservation of the widest possible realm of selection for making new and other decisions."[24] In short, he tasked democracy with holding open the "World as *Woraus* [out of which]," a function in which "democracy has its rationality and its humanity: its reason [*Vernunft*]."[25] Contrary to the romantic ideal of the student protestors, Luhmann averred, it is impossible for the public to directly participate in making binding decisions. But in the form of "public opinion" it serves as the reservoir out of which "other possibilities," alternatives excluded by prior decisions, can be drawn and reintroduced back into political communication. Or, as he put it in another essay from 1969, "public opinion is substantivized political contingency—a substantive to which one entrusts the solution to the problem of the reduction of the arbitrariness of legal and political possibilities."[26]In a sense, then, Luhmann actually agreed with Habermas that the "public sphere" was the functional core of democracy, *not* the selection process represented by elections.

Elections nevertheless had their function, for Luhmann, as an important source of legitimacy for the binding decisions made by the state administration. This idea, which already rankled many, including Habermas, for its resemblance to Joseph Schumpeter's "acclamatory" or "elite theory of democracy,"[27] was only made more troubling by the complementary thesis of *Legitimation through Procedure* (1969). The book provoked a small but heated academic controversy that formed the more immediate backdrop of the debate with Habermas.[28]

One source of controversy was simply a matter of confusion: several readers had ignored Luhmann's qualifications and understood him to be advancing the claim that procedure alone constitutes political legitimacy. Luhmann construed his argument more narrowly: how *does* procedure create legitimacy? He proposed treating procedure as a kind of social system with its own unique complexity-reducing selectivity, which could be analyzed in judicial, electoral, legislative, and administrative contexts. Part of the legitimacy of procedure resided in its relationship to uncertainty, which it both reduced and preserved. By formalizing the rules according to which decisions are made, procedure relieves the uncertainty of observers about *how* the decision will be made. But its legitimacy also resides in its ability to preserve the uncertainty of its results: no one trusts a judicial system or an election whose outcomes are a foregone conclusion. Procedures thereby serve as release valves that help to absorb conflicts without trying to stamp them out; they give conflicting parties a chance to express their grievances while also containing them so they don't spill over into other social domains. In so doing, they also help preserve the autonomy of the political subsystem.[29] Luhmann's concept of legitimacy was therefore not a normative, but a descriptive category. Instead

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[24] Luhmann, "Komplexität und Demokratie," 1971, 40; originally published as Luhmann, "Komplexität und Demokratie," 1969.

[25] Luhmann, "Komplexität und Demokratie," 1971, 40.

[26] Niklas Luhmann, "Öffentliche Meinung," in *Politische Planung: Aufsätze zur Soziologie von Politik und Verwaltung*, 1971, 10.

[27] Joseph A. Schumpeter, *Capitalism, Socialism, and Democracy* (Harper Collins, 1942).

[28] Niklas Luhmann, *Legitimation durch Verfahren* (Frankfurt am Main: Suhrkamp, 2013); Warnfried Dettling, review of *Review of Soziologische Aufklärung. Aufsätze zur Theorie sozialer Systeme. 2. Aufl., ; Legitimation durch Verfahren. Soziologische Texte Bd. 66, Niklas Luhmann; Theorie der Gesellschaft oder Sozialtechnologie: was leistet die Systemforschung? (Reihe: Theorie-Diskussion), Jürgen Habermas, Niklas Luhmann*, by Niklas Luhmann and Jürgen Habermas, *Zeitschrift Für Politik* 19, no. 1 (1972): 58–63; Johannes Weiß, "Legitimationsbegriff und Legitimationsleistung der Systemtheorie Niklas Luhmanns," *Politische Vierteljahresschrift* 18, no. 1 (1977): 74–85; Joachim Heidorn, *Legitimität und Regierbarkeit: Studien zu den Legitimitätstheorien von Max Weber, Niklas Luhmann, Jürgen Habermas und der Unregierbarkeitsforschung ... Schriften)* (Berlin: Duncker & Humblot, 1982); Stefan Machura, "Niklas Luhmann's 'Legitimation durch Verfahren' im Spiegel der Kritik," *Zeitschrift für Rechtssoziologie* 14 (1993): 97–114; Chris Thornhill, "Niklas Luhmann: A Sociological Transformation of Political Legitimacy?," *Distinktion: Journal of Social Theory* 7, no. 2 (January 1, 2006): 33–53.

[29] For a recent defense of political proceduralism, see Kari Palonen, *The Politics of Parliamentary Procedure: The Formation of the Westminster Procedure as a Parliamentary Ideal Type* (Verlag Barbara Budrich, 2016).

of positing universal criteria for the legitimate exercise of power, Luhmann offered a sociological account of the various ways in which political systems procure their own legitimacy.

This notion of legitimacy was obviously unsatisfactory to a normative theorist like Habermas. He had already published several influential broadsides against technocracy and, more generally, against science and technology as instances of the ceaseless striving of "instrumental reason" for universal domination and mastery.[30] At the same time, Habermas was more sanguine about modern science, including the social sciences exported from the United States, than his Frankfurt predecessors, Adorno and Horkheimer. In fact, the publication of *Theory of Society or Social Technology* coincided with the beginning of a new period in Habermas's career, as he departed Frankfurt to lead the Max Planck Institute for the Study of the Scientific-Technical World at Starnberg in 1971. By then, the tumultuous twilight years of the 1960's already found Habermas transitioning from the more explicitly Left-Hegelian Marxism of the earlier part of the decade to more focused inquiries into the relationship of science to the modern world, returning to Max Weber's most potent inquiries and the powerful contemporary currents in American sociology that had followed him.[31] Although Habermas already announced this interest with the publication of *On the Logic of the Social Sciences* in 1967, it was during his Starnberg period that his work was most characterized by the incorporation of the kinds of American social-scientific theories that informed Luhmann's work, which the previous generation of the Frankfurt School would likely have castigated as positivist.[32]

The specter of positivism loomed in the background of the debate between Habermas and Luhmann, and has figured centrally in interpretations ever since. Agnes Heller, for example, has viewed the debate as a more successful recapitulation of the original West German positivism debate between Adorno and Karl Popper in the late 1950's and early 1960's, continued by their students, Habermas and Hans Albert, respectively.[33] With the misguided characterization of Luhmann as a positivist (and a Heideggerian!), however, Heller overlooked how Luhmann's own early work had opposed the same naïve, positivist empiricism that Habermas also critiqued—one of the reasons why Adorno, Habermas and others on the Left originally found something appealing in Luhmann's work in the late 1960's. Numerous references throughout the text of the debate reveal that Habermas recognized this commonality. Luhmann and Habermas both shared the belief that positivism was split between an empirical and a normative side, and that any substantial scientific progress demanded a new kind of theory to overcome it.[34]

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[30] Max Horkheimer and Theodor W. Adorno, *Dialectic of Enlightenment*, trans. Gunzelin Schmid Noerr and Edmund Jephcott (Stanford, CA: Stanford University Press, 2007); Max Horkheimer, *Critique of Instrumental Reason* (Verso Books, 2014); Martin Jay, *Reason after Its Eclipse: On Late Critical Theory*, 1 edition (Madison, Wisconsin: University of Wisconsin Press, 2016); For a critique of the equation of science and instrumental reason, see Cathryn Carson, "Science as Instrumental Reason: Heidegger, Habermas, Heisenberg," *Continental Philosophy Review* 42, no. 4 (March 2010): 483–509.

[31] Jürgen Habermas, "Dogmatism, Reason, and Decision: On Theory and Praxis in Our Scientific Civilization," in *Theory and Practice*, trans. John Viertel (Boston: Beacon Press, 1988).

[32] Jürgen Habermas, *On the Logic of the Social Sciences*, trans. Shierry Weber Nicholsen and Jerry A. Stark (Cambridge, Mass.: The MIT Press, 1990); Jürgen Habermas, *Theory and Practice*, trans. John Viertel (Boston: Beacon Press, 1988); Jürgen Habermas, "Labor and Interaction: Remarks on Hegel's Jena Philosophy of Mind," in *Theory and Practice*, trans. John Viertel (Boston: Beacon Press, 1988); Jürgen Habermas, *Communication and the Evolution of Society*, trans. Thomas McCarthy (Boston: Beacon Press, 1979); Jürgen Habermas, *The Theory of Communicative Action, Volume 1: Reason and the Rationalization of Society*, trans. Thomas McCarthy (Boston: Beacon Press, 1985).

[33] Heller, "The Positivism Dispute as a Turning Point in German Post-War Theory"; Adorno, *Positivist Dispute in German Sociology*; Dahms, *Positivismusstreit*.

[34] Habermas, *On the Logic of the Social Sciences*; Niklas Luhmann, *Funktionen und Folgen formaler Organisation* (Berlin: Duncker & Humblot, 1964); Niklas Luhmann, *Theorie der Verwaltungswissenschaft* (Köln u. Berlin: Grote, 1966).

Luhmann's theory did, nonetheless, strike Habermas as 'scientistic' because it appeared to argue for the application of the methods of the natural sciences to social phenomena, implying that social science ought to be "value free." And therein lay Habermas's occasional accusation that Luhmann's systems theory could not escape from a positivistic, and hence, ideological, bias. And so, owing in part to his former career as a bureaucrat and his work in administrative science, Luhmann provided a tempting target for Habermas's recently developed critiques of technocracy.

For example, "Technology and Science as Ideology, "written in the context of the 1968 student revolt, reflected on Herbert Marcuse's earlier analysis of oppressive reification exacted by technological abstraction.[35] But unlike some of the more utopian strains on the Left, including Marcuse, which speculated on the possibility of a "different" technology, Habermas concurred with conservatives like Gehlen that technology as instrumental reason was so deeply rooted in the structure of instrumental action that creating a better science and technology by "returning to nature" would be no easier than changing human nature itself. Instead, Habermas insisted that it simply needed to be balanced out by another fundamental dimension of the human condition, that of "symbolic interaction" or "communicative action."[36] The problem with technocracy was thus that it made decisions according to the dominating criteria of instrumental reason, rather than engaging in a participatory politics rooted in communicative reason.[37] Moreover, instrumental reason had also become ideological as soon as it entered the everyday "lifeworld," preventing social actors from distinguishing between "practical" and "technical" reason.[38]

Cybernetics also proved a tempting target in this context. Habermas criticized cybernetics and "systems analysis" on several occasions in the 1960's, highlighting its intrinsic affinities to the technocratic impulse to manage society according to the instrumental criteria of efficiency and self-preservation.[39] Norbert Weiner, after all, titled his famous book *Cybernetics, or, Control and Communication in the Human Animal*. Habermas took particular exception to cybernetics' overriding concern with the problem of "stability." But "even if the cybernetic dream of a virtually instinctive self-stabilization could be realized," he argued, "the value system would have contracted in the meantime to a set of rules for the maximization of power and comfort." Invoking a term from Luhmann's favorite cyberneticist, Ross Ashby, Habermas thought this "would be equivalent to the biological base value of survival at any cost, that is, ultrastability."[40]

Habermas thus saw in Luhmann not only a potential ally against crude and naïve versions of sociological positivism, but also a potentially seductive, ideological, and dangerous technocratic post-positivist. In what would become a characteristic maneuver, Habermas used Luhmann's systems theory as a pivot around which to develop his own alternative. Luhmann's work presented an opportunity for an immanent critique of the most theoretically ambitious social science research program of the day. Rather than merely rejecting systems theory, Habermas sought to assimilate it into his own theory of universal pragmatics, and thereby defuse what he saw as its most ideological

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[35] Herbert Marcuse, *One-Dimensional Man: Studies in the Ideology of Advanced Industrial Society*, ed. Douglas Kellner (Boston: Beacon Press, 1991); J. Jesse Ramírez, "Marcuse Among the Technocrats: America, Automation, and Postcapitalist Utopias, 1900-1941," *Amerikastudien / American Studies* 57, no. 1 (2012): 31–50.

[36] Jürgen Habermas, "Technology and Science as 'Ideology,'" in *Toward a Rational Society; Student Protest, Science, and Politics* (Boston: Beacon Press, 1970), 88.

[37] Habermas, 103.

[38] "The reified models of the sciences migrate into the sociocultural life-world and gain objective power over the latter's self-understanding. The ideological nucleus of this consciousness is *the elimination of the distinction between the practical and the technical*." Habermas, 113.

[39] Habermas, 106; Jürgen Habermas, "Technical Progress and the Social Lifeworld," in *Toward a Rational Society; Student Protest, Science, and Politics* (Boston: Beacon Press, 1970), 60; Habermas, "Dogmatism, Reason, and Decision: On Theory and Praxis in Our Scientific Civilization."

[40] Habermas, "Technical Progress and the Social Lifeworld," 60.

and antidemocratic tendencies. The dialectical irony, of course, is that Habermas may have granted Luhmann the very springboard that would launch a career of almost unprecedented success. He may have created his own "best fiend."

» 2. Luhmann on "Meaning as a Basic Concept of Sociology «

The late 1960's witnessed the rapid rise of social scientific concern in the United States and West Germany with the category of "meaning." It was the heyday of the "interpretive social sciences," including the elaboration of George Herbert Mead's symbolic interactionism, the cultural anthropology of "thick description," and social constructivism. By 1971, these currents had become a fixture of methodological dispute in the social sciences, a reaction, in part, to the positivistic and quantitative models that had dominated American social science in the 1950's and early 1960's.

The new concern with meaning drew on previous efforts to develop an interpretive sociology in interwar Germany. Alfred Schutz, the former Husserl student and German émigré to the United States, was instrumental in promoting and advancing this methodological agenda. Already in interwar Germany he had used Husserlian phenomenology to complement the under-theorized dimensions of the concept of meaning in Weberian sociology, and conversely, used sociological insights to try to overcome Husserl's solipsistic starting point.[41] His students in the United States, the Austrian-born Peter Berger and German-born Thomas Luckmann later became the standard bearers of this new interpretive sociology with the publication of their landmark 1967 text, *The Social Construction of Reality*.[42] Foreshadowing Luhmann's strategy, Berger revived the Weberian link between the concept of meaning and theodicy in his work on religion, seeing in the problem of theodicy the core of all religion, as the stimulus which provoked religion's meaning-endowing and interpreting powers.[43] Religion, for Weber and Berger, was the meaningful projection of a world structure in which suffering and evil could be balanced out by some higher purpose.

In keeping with his hostility to the idea that rationality and intelligibility required reference to a higher "purpose" or to natural moral or juridical laws,[44] however, Luhmann denied that a scientific concept of meaning required any necessary reference to judgment over the good and evil in the world. Nonetheless, Leibniz's original framing of the problem of theodicy in terms of God's contingent selection of this world as the "best of all possible worlds," which already structured Luhmann's theory of rationality, became even more explicitly central to his new theory of meaning. In many respects, this concept of meaning, I argue, reconstructed crucial elements of Leibniz's metaphysics, only stripped of its "vertical" ontotheological and juridical dimension.[45]

Throughout the late 1960's Luhmann had regularly invoked the term "meaningful" as an adjective, without, however, clarifying how meaning related to the basic concepts of systems

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41 Alfred Schutz, *The Phenomenology of the Social World* (Northwestern University Press, 1967).

42 Peter L. Berger and Thomas Luckmann, *The Social Construction of Reality: A Treatise in the Sociology of Knowledge* (New York: Anchor, 1967).

43 "The implicit theodicy of all social order, of course, antecedes any legitimations, religious or otherwise. It serves, however, as the indispensable substratum on which later legitimating edifices can be constructed… Theodicy proper, then, as the religious legitimation of anomic phenomena, is rooted in certain crucial characteristics of human sociation as such." Peter L. Berger, *The Sacred Canopy: Elements of a Sociological Theory of Religion* (New York: Anchor Books, 1990), 55.

44 See Chapters Five and Six.

45 As described in previous chapters, I refer to the central thesis of Patrick Riley's important work on Leibniz's rationalism, which argued that Leibniz's concepts of rationality and logic were inextricable from his legal and political thought. Leibniz's overarching project, clearly laid out in *The Theodicy*, Riley argued, was to develop a "universal jurisprudence." Patrick Riley, *Leibniz' Universal Jurisprudence: Justice as the Charity of the Wise* (Cambridge, Mass: Harvard University Press, 1996); For another connection to Leibniz, also discussed in Chapter Four, see Jaap den Hollander, "Beyond Historicism: From Leibniz to Luhmann," *Journal of the Philosophy of History* 4, no. 2 (January 1, 2010): 210–25.

theory.[46] "Meaning as a Basic Concept of Sociology," the text written on the occasion of the debate with Habermas, aimed not only to perform this task, but also to undermine Habermas's own project of grounding rationality upon the pragmatic structure of intersubjective justification by demonstrating how the presuppositions of modern sociology, including Habermas's, were rooted in the ambivalent legacy of Leibnizian theodicy.[47]

Luhmann signaled this intention near the beginning of the text by declaring the task of sociology to be the "reduction of the contingency of possible worlds."[48] In this Leibnizian vocabulary, Luhmann argued that sociology contributes to the ability of a social system to "select" its world, just as God, for Leibniz, had selected this world as the "best of all possible worlds." This requires some explanation. In order to preserve God's freedom, Leibniz argued, the world God selected, even though the "best," nonetheless had to be contingent. Only God's "perfection" guaranteed that this contingent world was also necessarily the best. Otherwise the principle of "compossibility" governed Leibniz's definition of the good: the best world would be the one in which the greatest number of mutually compatible possibilities, or "compossibles," could be instantiated. In other words, the best world would be the most complex world.[49] Hence, Leibniz's theodicy presents a protean theory of complexity.[50] But if God's perfection withdraws as the basis of the selection of this world, then all that remains behind it is the contingency of its "selection." Luhmann's theory of meaning, I argue, reproduced the Leibnizian world inside the medium of meaning, governed only by the principle of contingency. In Luhmann's scheme, God is functionally reoccupied by contingency, and Leibniz's principle of sufficient reason transformed into what Jakob Bernoulli called the principle of *insufficient* reason.[51]

a. Meaning as the "Ordering Form of Human Experience"

So how did Luhmann define meaning? Characteristic of his approach to theorizing, no single definition exhausts the phenomenon under scrutiny. Drawing directly on his phenomenological heritage, Luhmann began with arbitrary starting points, provisional definitions that expand as his argument progresses.[52] In this text, Luhmann began by defining meaning as the "ordering form of human experience."[53] Phenomenology provided the basis for the analysis by describing the structure of the phenomena of the world as they appear to consciousness. This immanent description of the meaningful structure of experience could then offer the social theorist an entry point for accessing meaning's social dimensions.

Beginning with phenomenological experience allowed Luhmann to adopt one of Husserl's most crucial and basic insights from the latter's theory of intentionality for his own concept of meaning: that "what is given always and ineluctably refers to something else."[54] This "immanent

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[46] With the important exception of *Concept of Purpose and Systems Rationality*. Niklas Luhmann, *Zweckbegriff und Systemrationalität: über die Funktion von Zwecken in sozialen Systemen* (Frankfurt (Main): Suhrkamp, 1973).

[47] Niklas Luhmann, "Sinn als Grundbegriff der Soziologie," in *Theorie der Gesellschaft oder Sozialtechnologie: Was leistet die Systemforschung*, by Jürgen Habermas and Niklas Luhmann, ed. Karl Markus Michel, Auflage: 2. (Frankfurt a.M.: Suhrkamp, 1974).

[48] Luhmann, 26.

[49] Gregory Brown and Yual Chiek, eds., *Leibniz on Compossibility and Possible Worlds* (New York, NY: Springer Science+Business Media, 2016).

[50] See also, for a fuller exposition of this argument, Jonathan Sheehan and Dror Wahrman, *Invisible Hands: Self-Organization and the Eighteenth Century* (Chicago ; London: The University of Chicago Press, 2015); for a different genealogy, see Martin Davis, *The Universal Computer: The Road from Leibniz to Turing* (New York: Norton, 2000).

[51] Martin Jay, *Reason after Its Eclipse: On Late Critical Theory*, (Madison, Wisconsin: University of Wisconsin Press, 2016).

[52] Niklas Luhmann, *Introduction to Systems Theory*, ed. Dirk Baecker, trans. Peter Gilgen (Malden, MA: Polity, 2013).

[53] Ibid., 31; Niklas Luhmann, *Social Systems* (Stanford University Press, 1995).

[54] Luhmann, "Sinn als Grundbegriff der Soziologie," 31.

transcendence" which characterizes experience is, however, not at the discretion of the subject. One cannot "choose" to experience in a completely different manner, since free choice is itself predicated upon the availability of possibilities procured through this structure of experience. But the proliferation of possibilities also generates new problems. If there exist more possibilities at any given moment than can be "actualized" in any finite number of steps, how do they cohere, and how does one proceed to the next step, the next actualization?

The answer, for Luhmann, was meaning. Meaning creates a horizon, it projects a world, an always receding limit which contains the totality of what 'is' and what might be—that is, what could be experienced, what could be performed. This world is not just an aggregate or totality of already given, pre-constituted objects "out there", but the ultimate condition of possibility against which something can stand out *as* something. "Over against acute, conscious experience stands a whole world of possibilities."[55] Meaning is the space in which possibilities are projected and selected.

What are these selections? As recounted in Chapters Four and Five, throughout the 1960's Luhmann had tried to displace the foundations of sociology from a theory of action to a theory of social systems composed of communications (departing from the work of Talcott Parsons).[56] In line with this shift, Luhmann had already begun in the late 1960's to insist on the functional equivalence of the categories of "action" and "experience," abstracted from human actors and converted into disembodied ascriptions made by impersonal communications in determinate situations. "Meaning as a Basic Concept" presented another opportunity to expand on this distinction. Since not subjects but systems constitute meaning, the system decides whether a selection counts as an action or an experience, not the human "subject" or agent supposedly standing behind it. Whereas an action is a selection a system ascribes to itself, an experience is ascribed to a selection made by the environment. Luhmann's point is not that motives, experiences and intentions of individuals don't, in some sense, exist, but that they are outside the network of communications that constitute the system. In systems theoretical terms, they belong to the system's environment. Hence, Luhmann preferred the highly abstract term "selection" because it could encompass a wide variety of possible ways in which a system can make decisions, without privileging specific agents who are always responsible for the system's selections.

b. The Two "C's" – The Contingency and Complexity of the World

Meaning constitutes the world as a horizon of possibilities, out of which a system organizes itself, using a range of evolutionary mechanisms that select and stabilize certain possibilities of action. In other words, insofar as meaning is defined by the very difference between a selected actuality and a horizon of possibilities, it is a medium of contingency. In other words, for Luhmann "*Sinn*" is always *Kontingenzsinn*.

But it is also *Komplexitätssinn*. Citing Hans Blumenberg's encyclopedia entry on *Kontingenz*,[57] Luhmann next distinguished contingency and complexity. "The problematic of this self-overburdening of experience through other possibilities," he asserted, "has the double structure of complexity and contingency." Whereas complexity designated the "excess" of possibilities, that "there are more possibilities of experience and action than can be actualized," the concept of contingency, by contrast, expressed that selected or actualized possibilities, which could take place

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[55] Luhmann, 32.

[56] Talcott Parsons, *The Structure of Social Action*, 2nd ed. (New York: Free Press, 1968); Talcott Parsons, *The Social System* (London: Tavistock Publications, 1952); Hans Joas and Wolfgang Knöbl, *Social Theory: Twenty Introductory Lectures*, trans. Alex Skinner (Cambridge, UK ; New York: Cambridge University Press, 2009).

[57] Hans Blumenberg, "Kontingenz," in *Die Religion in Geschichte und Gegenwart. Handwörterbuch für Theologie und Religionswissenschaft.*, ed. Kurt Galling and Hans Freiherr von Campenhausen, vol. 3 (Tübingen: Mohr, 1959); Rüdiger Campe, "Contingencies in Blumenberg and Luhmann," *Telos* 2012, no. 158 (March 1, 2012): 81–99.

otherwise than expected, and "can deceive" and "disappoint." Whereas complexity signifies the "practical pressure to select," contingency involves "the practical danger of disappointment and the necessity of exposing oneself to risks."[58]

The concept of contingent selection, however, is in no way the exclusive province of "meaning." As discussed in Chapter Seven, it was also the central component defining the mathematical concept of information. All organisms, as organic systems, engage in selective behavior with regard to their environment, just like the simple cybernetic devices built in the 1950's. In behaving, they select one possibility over at least one alternative. The distinction between information and meaning had been raised in a series of heated debates inside the cybernetics community in the 1950's and early 1960's. Norbert Wiener and Claude Shannon, who had independently formulated the mathematical theory of information in 1948,[59] vigorously insisted that their concept had no bearing on semantics.[60] Their concept of information pertains only to the relative quantity of entropy in a closed system. It measures the probability of a given selection relative to the other possibilities that could have taken place instead. The number of alternative possibilities is strictly finite. In a message rendered in binary code, for example, the amount of information contained in each place in the message is equal to the probability of it being a 1 or a 0. Semantics was simply beyond the purview of this concept.

Nonetheless, the ambitious world-remaking aspirations of the cybernetic project and its affiliated disciplines did not remain content with this self-limitation. While always recognizing the limitations of the original version of meaning, those cyberneticists most interested in developing thinking machines, especially the prophets of artificial intelligence, did not stand idle under the ban imposed by Shannon and Wiener. Donald MacKay, a Scottish member of the "second generation" of cyberneticists, presented the rudiments of a possible theory of meaning that could be developed out of the resources of the theory of information, influencing Luhmann's approach.[61]

The distinction between meaning and information also involved the old philosophical problem of indeterminacy. While information entails indeterminacy in the form of entropy, it is always determinable or quantifiable indeterminacy: there are a finite, rather than indeterminate, number of possible values that can be assigned to each place in a message. Certain determinate possibilities are definitively excluded or implied in every instance of information: a 1 excludes a 0; in English, a "u" follows a "q" with a high probability. Information is a local and specific change in the state of some system. It is a selective event and not a stable quantity. Information, in other words, always upsets the relatively stable background of structured expectations: something is not information if it does not "surprise" a system. As Gregory Bateson would famously put it,

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[58] Luhmann, "Sinn als Grundbegriff der Soziologie," 32. Or again: complexity addresses the problem of the access to possibilities, while contingency involves the anxiety which develops through the recognition that every actualization is a *risky* selection from these possibilities. In this way, contingency takes on a somewhat more emotional coloring, restoring its existentialist pathos as fermenting anxiety.

[59] C. E. Shannon, "A Mathematical Theory of Communication," *The Bell System Technical Journal* 27, no. 3 (July 1948): 379–423; Norbert Wiener, *Cybernetics; or, Control and Communication in the Animal and the Machine.* (New York: M.I.T. Press, 1961); Katherine Hayles, *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics* (Chicago, Ill: University of Chicago Press, 1999); Katherine Hayles, *Chaos Bound: Orderly Disorder in Contemporary Literature and Science*, 1 edition (Ithaca, N.Y: Cornell University Press, 1990).

[60] Ronald R. Kline, *The Cybernetics Moment: Or Why We Call Our Age the Information Age* (Baltimore: Johns Hopkins University Press, 2015).

[61] Donald MacCrimmon MacKay, "The Place of 'Meaning' in the Theory of Information," in *Information, Mechanism and Meaning* (Cambridge: M.I.T. Press, 1969); Andrew Pickering, *The Cybernetic Brain: Sketches of Another Future* (Chicago ; London: University of Chicago Press, 2010); Kline, *The Cybernetics Moment*.

information is a "difference that makes a difference."[62] Meaning, by contrast, behaves in more like a highly malleable structure, which processes complexity and information more flexibly and capaciously than machines and organic systems. Whereas information is a "selective event" that cannot be repeated without losing its value as information, meaning is "a selective relation between system and world."[63] It handles information far more flexibly than mechanical and organic systems because it can preserve a much higher degree of indeterminacy, that is, those relatively unstructured possibilities that take the form of a *world*, permitting a far more adaptable regulation of the system/environment difference.[64]

The world, according to Luhmann, is a problem, a medium, and a precondition for the processing of complexity in any system that uses meaning.[65] As such, it must be *preserved* from one minute to the next. This is what Luhmann meant when he referred to the world as a "*Woraus,*" a relatively stable and structured network of possibilities presupposed in every communication. "Complexity," he wrote, "shall not be, as it is called in computer jargon and which is only adequate for describing machines, 'annihilated', but is, as it were, 'bracketed out', reduced from moment to moment in always different ways, remaining thereby protected as a universally constituted realm of selection, as a 'wherefrom' of always new and always other choices—as a world."[66] In rendering complexity in the form of a world, meaning preserves the vast and structured realm of possibilities not selected for future selection; it preserves complexity in the very act of reducing it. Systems, in order to maintain their boundaries in a complex environment, need to be able to reduce that complexity precisely in order to increase complexity on another level. Preserved complexity helps mitigate the "risk" that accompanies each selection. Because a decision or system structure might fail, maintaining a reserve of other possibilities—a "contingency plan"—makes the system far more flexible and adaptable. In other words, meaning is a pre-condition for learning.

Although Luhmann does not use the word in this text, it might be useful to think of this idea of meaning as a kind of "memory." Meaning constitutes a world by preserving the possibilities generated immanently within it: these possibilities are produced and reproduced as byproducts of the process of selection, through which a system replicates itself and differentiates itself from its environment. Meaning preserves them through a kind of virtualization, whereby they continue to be "available" for future selection. Or as Luhmann puts it, reminiscent of Leibniz's monadology, "In each meaning is the world indicated as a whole, from each meaning is it accessible."[67]

To explain this memory function, Luhmann claims an idiosyncratic version of "negation" specific to meaning as the mechanism. Meaning employs a "virtualizing" mode of negation, one in which the possibilities "negated" by each selection are bracketed and held in abeyance, but not annihilated. This negation, in other words, is part of the technology of memory. Negation, he claims,

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[62] Gregory Bateson, "Form, Substance and Difference," in *Steps to an Ecology of Mind: Collected Essays in Anthropology, Psychiatry, Evolution, and Epistemology*, 1 edition (Chicago: University of Chicago Press, 2000), 459.

[63] Luhmann, "Sinn als Grundbegriff der Soziologie," 34.

[64] A formulation that bears a striking resemblance to the discussion of the world in Martin Heidegger, *The Fundamental Concepts of Metaphysics: World, Finitude, Solitude* (Bloomington: Indiana University Press, 2001); But Luhmann likely draws far more on the self-identifying, non-Heideggerian tradition of thinking about the world, including Schutz and Berger. See also a text written by Blumenberg's *Doktorvater,* Ludwig Landgrebe, "The World as a Phenomenological Problem," *Philosophy and Phenomenological Research* 1, no. 1 (1940): 38–58.

[65] For the earliest discussion of this world concept, see also Niklas Luhmann, "Soziologie als Theorie sozialer Systeme," in *Soziologische Aufklärung 1: Aufsätze zur Theorie sozialer Systeme* (Opladen: VS Verlag für Sozialwissenschaften, 2009).

[66] Luhmann, "Sinn als Grundbegriff der Soziologie," 33–34. So whereas the 'selection' of a behavior or a stimulus by an organic or mechanical system is "contingent," it does not *use* this contingency to control its own behavior—it doesn't use this reference to other possibilities to remain 'aware' of the possibility of needing act otherwise in case of disappointments, that is, to absorb risk.

[67] Luhmann, 61.

is both reflexive and generalizing: it creates usable abstractions, while also referring back to itself, so that a negation or the abstraction it produces can always be undone.

» 3. Habermas's Critique « Following Ariadne's Thread

I cannot do full justice here to the depth, detail and finesse of Habermas's lengthy, detailed, technical and often charitable critique of Luhmann's work. Its scope extends well beyond the treatment of themes from the "Meaning" essay, encompassing a critical appraisal of a generous selection of Luhmann's texts from the 1960's. The following exegesis will focus above all on Habermas's arguments concerning the category of meaning.

Without denying the usefulness of particular features of Luhmannian systems theory, Habermas attempted to demonstrate that the syntheses enabling its supposedly universal applicability involved contradiction. Simply put, systems theory and phenomenology were incompatible because they articulated mutually irreconcilable concepts of the "world." Even on their own, both were far too "monadological" or solipsistic to account for the structures of intersubjectivity. In consequence, Habermas presented his own newly emerging alternative: a theory of normative rationality based upon the human linguistic, communicative capacity to justify in public, expressed through "discourse."

The concept of meaning, Habermas argued, could not be reconstructed independent of the structures of language, because he believed that meaning derived from linguistic ability. A theory of communication rooted in a universal pragmatics and hermeneutics, accordingly, must be normatively and logically prior to systems theory. From this vantage point, Habermas launched his attack on what he saw as the ideological and technocratic dimensions of Luhmann's theory, repurposing his attacks on "technocracy" from the late 1960's,[68] chiseling away at Luhmann's claim that truth was but a symbolically generalized medium of communication and not a universal and immanent feature of communication. Most perniciously, according to Habermas, Luhmann's weakened concept of truth obstructed his ability to distinguish between Enlightenment and Counterenlightenment, leading his theory consistently to empower the latter.

a. On the Incompatibility of Systems Theory and Phenomenology: The Two-World Problem

Although his late 1960 screeds against 'technology run amok' evidenced a somewhat impoverished notion of contemporary science as a mere manifestation of instrumental reason, Habermas was no stranger to the mathematical concept of information underpinning cybernetics.[69] His first forays into the realm of what he would call "universal pragmatics" had already begun in the late 1960's, addressing the role of information in the structural linguistics he appropriated from Chomsky, among others, for this theory. Habermas prefaced his critique of Luhmann with a brief propaedeutic presentation of this work in a significantly-revised version of an essay from 1969, in which he first developed the outlines of the theory through a critique of accounts of communication based on a theory of information.[70]

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[68] Habermas, "Technology and Science as 'Ideology'"; Habermas, "Dogmatism, Reason, and Decision: On Theory and Praxis in Our Scientific Civilization."

[69] Habermas, "Technology and Science as 'Ideology'"; Habermas, "Dogmatism, Reason, and Decision: On Theory and Praxis in Our Scientific Civilization"; Jürgen Habermas, "Between Philosophy and Science: Marxism as Critique," in *Theory and Practice*, trans. John Viertel (Boston: Beacon Press, 1988).

[70] Jürgen Habermas, "Towards a Theory of Communicative Competence," *Inquiry* 13, no. 1–4 (January 1, 1970): 360–75.

Using recent developments in linguistics and analytical philosophy, Habermas refined the category of "interaction," which, he argued in his earlier work, was a form of praxis (as opposed to "work," purposive-rational action, or *techne*) disastrously overlooked in traditional European social theory.[71] The concept of interaction offered Habermas a novel approach to social action, one rooted from the very beginning in the intersubjective structures of language.

Habermas's adoption of new developments in structural linguistics was always critical. He took Chomsky's generative grammar to task, for example, for relying on mathematical information theory. Habermas held this responsible for Chomsky's "monological" account of language—a reproach Habermas would repeatedly level against Luhmann. "I consider this model to be monological," Habermas wrote in 1969, "because it consistently attributes the intersubjectivity of meaning — that is, the mutual sharing of identical meanings — to the fact that sender and receiver — each an entity for itself — are previously equipped with the same programme. It is this pre-established code that is supposed to make communication possible."[72] But neither "subjectless structures" nor anthropologically fixed, individual capacities, Habermas argued, could alone harbor the faculty of reason. Instead a more robust, critical, intersubjective, normative and yet diffuse concept of communicative action would have to be developed for the task—precisely the one Habermas had begun to outline in most of his work throughout the 1960's, from *Structural Transformation of the Public Sphere* through *Knowledge and Human Interests*.[73] Although intersubjective reason still depended on the anthropologically constant capacity for linguistic "competence," the latter can only be fostered through social interaction or "socialization."

Habermas's critique of Luhmann began with a casual dismissal of systems theory as a form of "sociocybernetics," a term associated with social theorist Walter Buckley, but which Luhmann never used.[74] He argued against the possibility of representing a society as a system akin to a self-regulating mechanism or organism. Unlike organisms, which are born and which can die, social systems have no clear criteria for establishing their identity as something persisting over time. But any claims that a social system can be understood as a unity that defines itself through its own ability to reproduce itself and its boundaries would need some kind of identity—some kind of reference point or criterion to delimit exactly what is being reproduced.[75]

For Luhmann meaning was supposed to generate the criteria for the identity of a system. But instead of choosing the route of a social hermeneutics to interpret this thick meaning, Luhmann had opted to "radicalize" the basic concepts of systems theory to fuse them with phenomenological analyses of meaning. In the case of complexity-oriented systems theory, in which a system

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[71] Habermas, "Labor and Interaction: Remarks on Hegel's Jena Philosophy of Mind."

[72] Ibid., 361; This should also give one pause before a too hasty assent Rasch's critique that Habermas's version of complexity, unlike Luhmann's, is based on the notion of "generative simplicity," drawn from Chomsky's generative grammar. William Rasch, "Theories of Complexity, Complexities of Theory: Habermas, Luhmann, and the Study of Social Systems," *German Studies Review* 14, no. 1 (February 1, 1991): 65–83.

[73] Jürgen Habermas, *The Structural Transformation of the Public Sphere: An Inquiry into a Category of Bourgeois Society*, trans. Thomas Burger and Frederick Lawrence, Sixth Printing edition (New York: The MIT Press, 1991); Jürgen Habermas, *Knowledge and Human Interests*, trans. Jeremy J. Shapiro (Beacon Press, 1972).

[74] The same critique he had leveled against all forms of functionalism in 1967 with *On the Logic of Social Systems*, which he borrowed from American sociology. But these were critiques which had already been embraced within the project of "sociocybernetics" itself. See Walter Buckley, *Sociology and Modern Systems Theory* (Englewood Cliffs, N.J.: Prentice Hall, 1967). For a full account of the American critiques of functionalism, see Chapter Four.

[75] Luhmann only partially addressed this concern in his response to Habermas. But the centrality of the problem of identity persisted, stimulating him to compose a contribution to the eighth meeting of the famous research group Poetik und Hermeneutik in 1976, dedicated to the concept of identity. Niklas Luhmann, "Identitätsgebrauch in selbstsubstitutiven Ordnungen, besonders Gesellschaften," in *Identität*, ed. Odo Marquard, Karlheinz Stierle, and Forschungsgruppe Poetik und Hermeneutik, vol. 8, Poetik und Hermeneutik (München: W. Fink, 1979).

distinguishes itself from an environment always more complex than it, the system's only reference problem, from which it is supposed to derive criteria for regulating its boundaries, was that of the "excess complexity" of the world of meaning. A system reproduces itself by reducing the complexity of its environment to a level such that it can adequately respond to unpredictable events in its environment, what Ross Ashby had called "requisite variety."[76] Luhmann designed his concept of meaning precisely to account for the system's ability to process this complexity of "excess possibilities" and achieve a higher order form of requisite variety. By making the task of reducing complexity independent of the given, concrete structures of that specific society, Habermas argued, Luhmann would have to posit an objective "world complexity" independent of any given, empirical system. It would have to be a form of complexity subsisting "in itself" and not only *for* a system. Without it, sociocybernetics merely defends the status quo: society reproduces itself by always trying to remain what it already is.[77] But if Luhmann were to agree that there is a world complexity "in itself," this would contradict everything he had so far said about the world consisting in a system-immanent projection of meaning, as its horizon of possibilities.[78]

In other words, Luhmann's theory was beset by a dilemma between two completely different concepts of "the world" that he seemed to use interchangeably: a realist and an idealist-constructivist world. While the "real world" consists of the "totality of states" obtaining for both the system and environment, the idealist "projected world" is an open, in principle infinite, horizon of possibilities, which belong, however, to the system itself as its own projection. The latter assumption, according to Habermas, derived not only from idealist phenomenology, but also from philosophical anthropology, which had always emphasized the "openness" of the world of humans compared to that of other animals. Cyberneticists like Ashby, by contrast, used the idea of the overpowering complexity of a world totality in-itself to produce a formal definition of the system/environment distinction.[79] This equivocation, Habermas alleged, forced Luhmann to overextend the concept of complexity. In the case of the mechanical apparatuses, a system is overburdened by external, environmental complexity, which it must reduce to parameters to which it can respond. It decreases world complexity in order to increase its own complexity. But in the case of the "projected world," it is not clear which complexity is being reduced or increased. Does decreasing the complexity of the world also entail decreasing its own complexity?[80]

From a more political and less abstract point of view, this equivocation suggested Luhmann's fundamental ambivalence towards the Enlightenment. Habermas argued that the two concepts of the world map onto two mutually opposed practical stances: a humanist-existentialist and an irrationalist-institutionalist approach. Habermas associated the former with the work of Jean-Paul Sartre: in the face of an absurd world of radical contingency, in which "reality is conceived according to the principle 'everything is possible… there remains nothing more for the actor than to

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[76] William Ross Ashby, *An Introduction to Cybernetics* (J. Wiley, 1956); See also, Pickering, *The Cybernetic Brain*.

[77] The idea of a status quo was a complicated issue for Luhmann, who addressed this concern in a prior essay. Niklas Luhmann, "Status Quo Als Argument," in *Studenten in Opposition : Beitrage zur Soziologie der deutschen Hochschule / [Hrsg. von] Horst Baier*, ed. Horst Baier, Wissenschaftstheorie, Wissenschaftspolitik, Wissenschaftsgeschichte ; Bd. 10 (Bielefeld]: Bertelsmann Universitatsverlag, 1968).

[78] This Kantian argument on the necessity of the idea of the "thing in itself" had become central to Critical Theory's argument against the philosophy of identity. Adorno had interpreted it as a "block" against all-too-hasty reductions of truth to subjective reason. See Theodor W Adorno, *Kant's Critique of Pure Reason*, ed. Tiedemann, Rolf, trans. Rodney Livingstone (Stanford, Calif.: Stanford University Press, 2001).

[79] Ashby, *An Introduction to Cybernetics*.

[80] Jürgen Habermas, "Theorie der Gesellschaft oder Sozialtechnologie? Eine Auseinandersetzung mit Niklas Luhmann," in *Theorie der Gesellschaft oder Sozialtechnologie: Was leistet die Systemforschung?*, ed. Karl Markus Michel, Auflage: 2. (Frankfurt am Main: Suhrkamp, 1974), 155–60.

encounter the risks of his existence through projecting possibilities of acting."[81] The human individual better learns how to manipulate its world the more possibilities of action it has before it: the more substitutes for any action or goal, the more manipulable it becomes. This Sartrean, humanist rendering of the world favored Enlightenment, because by equating rationality with an increase in complexity, it made an argument in favor of a kind of reason that transcends the status quo and works in favor of transparency and manifest decisions.[82] The institutionalist position, which Habermas attributed to Gehlen, by contrast, entailed counter-Enlightenment.[83] This theory argued that the complexity of the world must be reduced and concealed through social norms, techniques and organizations in order to disburden weak, individual human beings from having to reckon with it alone. Here, the increase in complexity appeared not as a gain in rationality, but as an increase in risk. Rationality thereby consisted in leaving parts of the world opaque in ways that could increases a system's chances of survival, by restraining the range of possible actions available for responding to pressing circumstances.[84] Essentially, Habermas accused Luhmann of conflating not only two kinds of worlds, but the two kinds of contingency later distinguished by Odo Marquard: the Promethean "anything is possible" and the facticity of fate that denies human agency.[85]

Finally, to refute Luhmann's use of constitution theory, Habermas also resumed the critique of German Idealism he had originally raised against Lukács's *History and Class Consciousness*. Habermas's reading of Hegel's Jena writings from *Theory and Praxis*,[86] in which he first discovered the alternative resources in Idealism for a theory of interaction as distinct from "labor," had provided such an occasion to critique Lukács for his overly monological, expressivist and cognitivist account of the historical and collectivist *Bildungsprozess* of proletarian class consciousness.[87] Collectives can act, but not in the same way as individual subjects.[88] Luhmann's theory of the constitution of meaning was vulnerable to the same critique. In order to account for the polycentricity of the social world, Habermas maintained, we need to sideline cognitivist and "productivist" constitution theories and focus on the practical category of interaction.

b. Alternative: Discourse, Communicative Competence, and Reason as Justification

Habermas's began his alternative account of discourse with a critique of the idea of pre-linguistic meaning. Following Ernst Tugendhat's linguistic critique of ontology, he argued that words like "being" and "negation" are just hypostatizations of grammatical functions.[89] If so, the concept of "virtualizing negation" prior to language entailed a category mistake. Instead, Habermas placed human action back at the beginning of the story. Concrete human *communicative* action, Habermas argued, is logically and normatively prior to the constitution of a world of experience—of meaning.

Even more, Habermas charged that Luhmann's theory could not make meaning

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[81] Habermas, 160.

[82] For an important account of the critiques of transparency in France, see Stefanos Geroulanos, *Transparency in Postwar France: A Critical History of the Present*, 1 edition (Stanford University Press, 2017).

[83] Arnold Gehlen, *Man* (New York: Columbia University Press, 1988); Jan-Werner Müller, *A Dangerous Mind: Carl Schmitt in Post-War European Thought* (New Haven: Yale University Press, 2003); Joachim Fischer, *Philosophische Anthropologie: Eine Denkrichtung des 20. Jahrhunderts* (Freiburg im Breisgau: Verlag Karl Alber, 2016).

[84] Habermas, "Theorie der Gesellschaft oder Sozialtechnologie? Eine Auseinandersetzung mit Niklas Luhmann," 161.

[85] This was described in detail in the *Supplement* to the introduction to this dissertation. See also: Odo Marquard, *In Defense of the Accidental*, trans. Robert M. Wallace (New York: Oxford University Press, 1991).

[86] Habermas, "Labor and Interaction: Remarks on Hegel's Jena Philosophy of Mind."

[87] Georg Lukács, *History and Class Consciousness: Studies in Marxist Dialectics*, trans. Rodney Livingstone, MIT Press edition (Cambridge, Mass.: The MIT Press, 1972); Martin Jay, *Marxism and Totality: The Adventures of a Concept from Lukács to Habermas* (University of California Press, 1984).

[88] Habermas, *Knowledge and Human Interests*; Habermas, "Between Philosophy and Science: Marxism as Critique."

[89] Ernst Tugendhat, *Der Wahrheitsbegriff bei Husserl und Heidegger* (Walter de Gruyter, 1970).

independent of or prior to the concept of information because he had defined meaning in terms of the same idea of selectivity that defined information. But, as Luhmann himself conceded, in order for something to be treated as information, as a "surprise," it presupposed that both participants in a communication already share some background of meaning. In other words, some basic layer of meaning must be held identical for multiple participants if information is to be exchanged between them: there must already be a "background" of meaningful expectations that can be surprised or disappointed. But Luhmann offered no way to account for this identity, since his notion of meaning seemed by definition to be in flux. A concept of meaning independent of and prior to the concept of information, Habermas contended, would require a situation in which there is meaning without information.[90] Habermas called it "discourse."[91]

The problem of identity is crucial to the concept of discourse. Habermas argued that since one cannot assume that dialog partners hold identical meaning contents in common, they must share something else identical. And this, he claimed, could be found in the everyday practice of *normative rule-following*: in order to speak to one another, we tacitly presuppose the very same normative linguistic rules of communication. Absent the mutual identifiability of these rules, truthful communication would be impossible. "Discourse" was the privileged site for discussing and arguing over the meaning and relevance of these tacitly presupposed normative rules.

Habermas clarified the structure of discourse by distinguishing his own linguistic variant of virtualizing negation. "Discourse is based, namely, on a virtualization of the mode of validity of expressions. As we enter a discourse, we negate that assumption of existence, which, while acting, is always bound up with propositional contents… first, the reservation of existence transforms assertions into hypotheses, facts into problematic facts…"[92] Discourse, in other words, precisely because it is free from the compulsion to reduce complexity, allows non-informational meta-communication to take place, in which participants exchange *justifications*. Offering a justification is a type of communication that does not involve information, since it involves the logical analysis of presuppositions shared by the participants and so can't be surprising. In other words, discursive justifications don't appeal to the discovery of new empirical facts about the world, but to the analysis and clarification of already extant reasons or "meaning contexts."[93]

According to Habermas, language has an immanent telos in discourse, as not only free of domination, but free of all "selective pressures" to reduce complexity or process information. "Discourse is not an institution," Habermas claimed, rather, "it is the counterinstitution as such."[94] It counterfactually suspends the objectivistic "functional imperatives" of the system, escaping their grasp through the "forceless force" of justification. The promise of the redemption of validity claims inhering in every speech act, the promise to justify one's assertions with good reasons, has priority for Habermas over the very category of selection.[95] Selection, for Habermas, was little more than a secondary, derived and impoverished version of justification—"technicized" reason.

c. Legitimation Crisis: Systems Theory as Ideology

Having offered his account of discourse as an alternative to Luhmann's conception of prelinguistic meaning, Habermas proceeded skillfully to dissect Luhmann's approach to the questions of truth, ideology and legitimation, a preview of his next major work. *Legitimation Crisis* (1973) was in many

[90] Habermas, "Theorie der Gesellschaft oder Sozialtechnologie? Eine Auseinandersetzung mit Niklas Luhmann," 183–86.
[91] Habermas, 195.
[92] Habermas, 199.
[93] Habermas, 200.
[94] Habermas, 201.
[95] Habermas, 213.

ways an addendum to the debate, Habermas's attempt to get in a last word. But it also adapted key tenets of functionalist systems theory in order to enable critical theory to account for systemic crisis as a problem of legitimation.[96]

Habermas took his starting point from Weber, who had defined the problem of legitimation as the "justification for domination."[97] The task of developing a concept of justification liberated from Weberian domination became, for Habermas, the lodestone for the project of Critical Theory and its account of legitimacy through the present,[98] orienting his own work and subsequent generations of Frankfurt School critical theory.[99] His goal was not merely to establish a plausible account of social reason, but to use it to develop a normative political theory of legitimation in conjunction with Marxist theories of crisis. He sought to reunite the sociological question, "how is social order possible?" with the philosophical question, "what is the good life?" and the political question, "how can this be achieved?" A critical theory of legitimacy, in other words, had to progress beyond a neutral description of how systems use legitimacy to maintain order, while avoiding promoting specific utopian fictions about the good life. So, following both Marx and Durkheim, Habermas attempted to demonstrate how the two problems of social order and social justice are factually interdependent. Unjust suffering, according to Habermas, generated social instability by eroding public confidence. A robust concept of legitimacy would bear an immanent connection to truth and justice, such that a just system could maintain legitimacy without recourse to ideological "worldviews." Harm to truth and "meaning" (in the substantive sense) needed to be understood as corrosive of the social fabric. The structure of social reason must be both objectively "correct" and subjectively "good;" the "unity of reason" must exist somewhere underneath the "plurality of its voices."[100] Or, as Habermas expressed it in *Legitimation Crisis*, there exists an objective social need to resist "the renunciation of the immanent relation of motive-shaping norms to truth,"[101] which systems theory, following the strictures of bureaucratic capitalism, seemed to demand.[102]

Justification provided the lynchpin joining the normative and realist dimensions of Habermas's account of reason. Unlike the return to natural law in Max Scheler and Nicolai Hartmann's interwar "concrete value thinking," which influenced judicial interpretations of the Federal Republic's Basic Law in the 1950's, justification is also highly formal. It is an open-ended practice that does not specify in advance the content of political norms, but rather exposes them to the testing of validity claims in the space of a discourse free from the pressures of "selection."

For Habermas, Luhmann's inability to recognize the normative power of practices of justification resulted from the systems theorist's violation of the ineradicable difference between

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[96] Jürgen Habermas, *Legitimation Crisis* (Boston: Beacon Press, 1975).

[97] Max Weber, "Politics as a Vocation," in *From Max Weber: Essays in Sociology*, ed. Hans Heinrich Gerth and C. Wright Mills (New York: Oxford University Press, Galaxy, 1958), 78.

[98] Jürgen Habermas, *Truth And Justification* (MIT Press, 2005).

[99] Three titles by the current leading figure in the Frankfurt School makes this clear: Rainer Forst, *Justification and Critique: Towards a Critical Theory of Politics*, 1 edition (Cambridge, UK: Polity, 2013); Rainer Forst, *The Right to Justification: Elements of a Constructivist Theory of Justice*, trans. Jeffrey Flynn, Reprint edition (New York: Columbia University Press, 2014); Rainer Forst, *Justice, Democracy and the Right to Justification: Rainer Forst in Dialogue* (London ; New York: Bloomsbury Academic, 2014).

[100] Jürgen Habermas, *Postmetaphysical Thinking*, trans. William Mark Hohengarten (Cambridge, Mass.: The MIT Press, 1994); Jay, *Reason after Its Eclipse*; Susan Neiman, *The Unity of Reason: Rereading Kant*, Reprint edition (New York: Oxford University Press, 1997).

[101] Habermas, *Legitimation Crisis*, 121.

[102] Habermas admitted, however, that it is still "an open question whether in complex societies motive formation is *actually* still tied to norms that require justification, or whether norm systems have lost their relation to truth," that is, whether the process of modernization was responsible for the progressive erosion of an emphatic concept of truth. Habermas, 117.

cybernetic concepts and the hermeneutics of meaning. Because the identity of a social system depends on prior meaningful interpretations of the world, Habermas argued, hermeneutics must take priority over systems theory.[103] Otherwise, one would have to assume that the objectively given, contingent states of a system are sufficient criteria for determining its identity. If so, systems theory would become merely a conservative technocratic theory for the preservation of the status quo, reducing the political system to an instance of Ashby's notion of an "ultrastable" self-regulating machine that only needs to be kept in working order by social planners, managers-cum-engineers. Luhmann's "sociological enlightenment" was simply a tendentious redescription of *counterenlightenment*.[104] Even worse, by disavowing the priority of social hermeneutics, Luhmann was forced to hastily identify the sociologists' own analysis of social problems with the reference problems facing a given social system. In any society with an unequal distribution of chances to participate and communicate, the sociologist would be forced to equate the needs of the system with the needs articulated by its hegemonic powers. This would result in a false identity of theory and praxis, disabling, for sociology, any semblance of critical distance from society. Sociology would become little more than a system for producing a neutral description, whose praxis would amount to little more than legitimating domination.[105]

In Luhmann's alleged false equivalence of theory and praxis, Habermas identified another dialectical ambivalence, familiar to students of the Frankfurt School, Martin Heidegger, or Carl Schmitt: Systems theory, Habermas alleged, was an updated variant of irrationalist "Lebensphilosophie," which dialectically enabled its technocratic impulses. Technological rationalism was here exposed as the flipside of decisionistic irrationalism. This accusation reflected the theme of the same major postwar West German debate formative for Luhmann: whereas Luhmann had hoped to overcome the polemical opposition between technocratic rationalism and decisionism, Habermas argued that, in Luhmann's theory, they had only become inseparable.[106]

» 4. Luhmann's Reply «
Theseus Assimilates the Minotaur

Instead of countering Habermas's critiques point by point, Luhmann used his response to clarify those of his basic concepts he thought Habermas had misunderstood. The accusation of having promoted a form of "socialtechnology" or "social cybernetics" struck Luhmann as particularly instructive in this regard. Habermas had simply cast technology as antithetical to the concept of meaning, corrosive to the constitution of a meaningful world. But technology, from symbolically generalized media to bureaucracies and airplanes, Luhmann countered, is a mode of structuring the field of meaning. It is a process for rendering abstract, indeterminable complexity into a workable, determinable form. It makes determinate possibilities available, and manages their contingency. Rather than a disenchanting violation of meaning, technology is a mode for processing this plexus of determinacy and indeterminacy called the world. The relationship of technology and technocracy to this problem of indeterminacy of meaning is one reason why in his response Luhmann expended so much energy rebutting Habermas's critique of his "two worlds ambivalence." Habermas contrasted

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[103] An argument foregrounded already in Habermas, *On the Logic of the Social Sciences*.
[104] Habermas, "Theorie der Gesellschaft oder Sozialtechnologie? Eine Auseinandersetzung mit Niklas Luhmann," 260.
[105] Habermas, 170.
[106] This had actually been Schmitt's own argument as well: technicity (the "spirit of technology") as a form of neutralization does get rid of the decision, of politics; it just makes it more dangerous by pretending it doesn't exist. Carl Schmitt, "The Age of Neutralizations and Depoliticizations(1929)," *Telos* 1993, no. 96 (June 20, 1993): 130–42. See Chapters Five and Six.

a world constituted as a "projection" or "horizon of possibilities" with a world as reality "in-itself" [*Wirklichkeit*], as complexity that exists independently of any system. Habermas argued that these two concepts of "world" and reality were incompatible. Luhmann aimed to show that Habermas had fundamentally misunderstood the post-metaphysical revolution he had aimed to introduce with his imbricated concepts of world, complexity and contingency.

Complexity involves the ordering of a gradient along a distinction. Social systems are defined by two such orthogonal gradients: the system/environment distinction and the difference between the indeterminate and determinate "world." The determinate, projected world forms the immediate horizon of an act, composed of possibilities that are readily available. The indeterminate world, not a self-subsisting ungraspable "something," is rather the constantly reproduced condition that only a limited number of alternatives can come into view at any given time, leaving a whole realm of murky possibilities beyond. "Meaning is an ordering form that controls access to other possibilities," Luhmann wrote. Some possibilities are held readily available, others fade into a hazy background of indistinct possibilities. This gradient exists for system-internal a well as environmental complexity. The world encompasses both. The relationship between an indeterminate and a determinate world distinguishes meaning-using systems from organic systems. While boundary maintenance regulates the relationship of complexity between system and environment in any system, *meaning* regulates the relationship between determinate and indeterminate complexity on both sides of the system/environment difference.[107]

Luhmann felt, accordingly, that he needed to reframe the concepts of "world" that are "constituted" through the interplay of reductions and expansions of complexity. Part of the problem, Luhmann thought, was that the transcendental concept of constitution used by Habermas in his critique of its "productivism" was still shackled to the interpretation of causality derived from ontological metaphysics.[108] To return to Husserl's original innovation beyond Neo-Kantianism: constitution is not "creation" or "construction." It is a revealing or disclosing, a framing of something under a given aspect, in the form of an "as." It is not an arbitrary fantasy or hallucination, but a way of letting something appear. Complexity is not a "grounding" principle, and constitution is not a relationship of "creation" or "emanation."[109] Constitution doesn't fabricate the object ex nihilo, and it doesn't synthesize it in the sense of assembling something out of heterogeneous parts. Systems theoretical constitution acts more like a prism or a "filter": instead of the blindness of pure white light, in refracts a differentiated spectrum; instead of the non-differentiation of white noise, it permits only certain frequencies to pass through, producing a harmonically rich tone. Having the ability to reduce and differentiate the white noise is essential; being able to produce shadows and separate colors is indispensable. But the more colors one has to work with, the greater the number of colors and shades, the more rich and complex, not only the song or the painting, but the ever-evolving set of formal possibilities available for producing art.

With this non-productivist notion of the constitution of the world of meaning in terms of the logic of selectivity, Luhmann aimed to untether the concept of meaning from the "vertical" dimension of ontotheological *Kontingenzsinn*. To Luhmann, Habermas's repeated insistence on the

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[107] Niklas Luhmann, "Systemtheoretische Argumentationen – Eine Entgegnung auf Jürgen Habermas," in *Theorie der Gesellschaft oder Sozialtechnologie: Was leistet die Systemforschung*, by Jürgen Habermas and Niklas Luhmann, ed. Karl Markus Michel, Auflage: 2. (Frankfurt a.M.: Suhrkamp, 1974), 300.

[108] For this argument, see Niklas Luhmann, "Funktion und Kausalität," in *Soziologische Aufklärung* (Opladen: Westdeutscher Verlag, 1970). For my commentary, see Chapters Four and Five.

[109] According to Luhmann, "This is, in a certain way, the theological version of my problem, but not my thesis. For me it consists, first of all, neither in theological nor in secularized causal or logical justifications, whose medium of thought typically bypasses the problem of complexity, but rather in a conceptual grasp and reconstruction of that relationship of implication as a gradient of complexity." " 298.

foundational nature of "justification" thus simply appeared to be an expression of his stubborn attachment to this vertical dimension. Whereas for Habermas, any refusal to countenance the vertical dimension of grounds could only mean a descent into the arbitrary irrationalism of Lebensphilosophie, Luhmann held the experiences of irrationality and nihilism to be byproducts of modernity's incomplete disengagement from ontological metaphysics; "phantom pains," he later wrote, resulting from "large-scale historical amputations."[110] From Luhmann's perspective, despite Habermas's own repeated declarations of the necessity of a post-metaphysical and anti-foundationalist philosophy, the Critical Theorist's prioritization of justification betrayed a lingering nostalgia for such metaphysical grounds. And so while Habermas clung the "old metaphysics" of Leibniz's *Theodicy*, embodied in the juridical demand for grounds, reasons, and responsible wills, Luhmann positioned himself as the legatee of Leibniz the theorist of complexity by pushing the truly modern, "horizontal" dimension of Leibnizian *Kontingenzsinn* to its late modern, sociological conclusion.

[110] Niklas Luhmann, *A Systems Theory of Religion*, ed. Andre Kieserling, trans. David Brenner and Adrian Hermann (Stanford, California: Stanford University Press, 2013), 20.

Conclusion
Lost in Leibniz's Labyrinth?
Systems theory and the Pathos of Theodicy

In an "Excursus on God's Participation in Sin" included in the posthumously published manuscript *Contingency and Law*, composed around 1971, Luhmann made explicit his understanding of the tight linkage between *Kontingenzsinn* and theodicy. The question of whether moral norms, laws and actions can be rationally "grounded," Luhmann argued, depends on a concept of contingency that originated in a theological debate about the responsibility of God for evil in the world. The "overarching unity of law and non-law," he wrote in *Contingency and Law*, ultimately depends on "the constitution of social contingency," whose "first adequately radical version" as a "world problem… is owed to John Duns Scotus."[1] In the course of the history of Christian dogma, this led to problems, which, according to Hans Blumenberg, became anthropologically "unbearable."[2] The nominalist doctrine of divine omnipotence and world contingency issued by Scotus and Ockham not only rendered the cosmos indeterminable and unpredictable, but it also revived the gnostic problematic of the moral purity of the true god, which had been only temporarily solved by Augustine's "anthropological burdening" of the human creature through the doctrine of original sin. Again following Blumenberg, Luhmann wrote:

> In the realm of contingency the will appears as prior to knowledge, since God can only know what he wills. And divine will wants everything that it effects, including, therefore, the freedom to sin, and wholly consequent thereupon, the sinful itself. Along this path, the argument appears to presuppose a sinning or at least a co-active and responsible God. But the terminology of causality and freedom in which this thought unfolds compels this parallelization of contingency and sin.[3]

The historical link between contingency and sin enabled Luhmann to expand his critique of causality as a species of onto-theology into a critique of the "juridical" element of *Kontingenzsinn* that scaffolded modern rationality. Both juridical and causal aspects of this theology had been integrated into Leibniz's theodicy, in which God was justified in the face of the world's evils. Habermas's talk of "justification" [*Begründung*], which Luhmann viewed as another species of this juridical rationality, was therefore undermined by the "vertical" contingency of grounds [*Gründen*]. Deep social processes for organizing contingency, Luhmann argued, operate prior to and independent the verbal formulation of reasons and causes. In other words, *Kontingenz* and rationality had to be made

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[1] Niklas Luhmann, *Kontingenz und Recht: Rechtstheorie im interdisziplinären Zusammenhang*, ed. Johannes Schmidt (Berlin: Suhrkamp Verlag, 2013), 106.

[2] Earlier in the book, Luhmann again affirmed the explicit connection to Blumenberg: "With the help of the concept of contingency is formulated one of the essential theoretical points of departure for the development of modern science, namely, the idea that the creation of the world through God must be grasped as an act of a contingent (willful) selection of a world from infinite other possible worlds. The full scope of this reorientation of thought which is therefore set on course, even though long discussed, is still difficult to assess." This statement was followed by a footnote attributing this though to Blumenberg: "The really most important publication on this is Hans Blumenberg, *The Legitimacy of the Modern Age*… important also for our particular considerations because Blumenberg also sheds light on these intellectual historical contexts with the assumption of the continuity of certain *Grundprobleme*, whose origin and systematic context remains open." Luhmann, 29.

[3] Luhmann, 107.

independent of their "vertical," theological, moral and juridical scaffolding, from the demand for reasons and justifications for the existence of evil, which would only ever trace a series of causes back to an endless abyss or to an arbitrarily chosen will. Fixating on this dimension of *Kontingenzsinn* simply put the cart before the horse. "The question of grounds [*Gründen*]," Luhmann posited, "only first develops on the basis [*Boden*] of contingency."[4]

Luhmann's "Systems Theoretical Argumentation: a Rebuttal to Jürgen Habermas," returned repeatedly to Leibniz and the theodic problematic, so clearly foregrounded in *Contingency and Law*. Luhmann here signaled his proximity to Leibniz's (failed) solution: "we live, as one knows since the Lisbon earthquake, not in the best of all possible worlds, but rather in a world full of better possibilities."[5] Luhmann did not so much deny the possibility of something like "progress" as he tried to restrain it with a heavy dose of rhetorical sobriety:

> The world concept no longer characterizes the cause [*Grund*], but rather the contingency of everything existent; it refers after the nominalistic turn of thought no longer to a cosmic sphere of necessity, under which the facticity of change, of movement, of merely possible becomes a problem; rather *it means contingency itself*, inside of which it has become a problem to justify necessities, truths, beauties, validities. The world no longer professes validities, but rather only the problem of validity. Domination and reason were early modern answers to this problem. The controversy with Habermas truly consists in the question, if they still suffice.[6]

Habermas considered "domination" and "reason" functionally adequate for reckoning with contingency because reason established its own immanent necessity above and beyond contingency through the structure of linguistic justification. This was true even if reason could no longer root its justifications in some "cosmic sphere of necessity," in nature as *physis*, or in a world that by itself "professes validities." Out of the intersubjective structures of the lifeworld Habermas made an ersatz foundation, the fallible practice of justification [*Rechtfertigung*] of validity claims replacing foundationalist appeals to absolute "reasons" [*Begründung*]. But following Blumenberg, Luhmann held the lifeworld to be only a reaction, one among many techniques for processing the world's ineluctable contingency. For the world is not merely contingent, rather, "it *means* contingency itself."[7] Contingency is thus corrosive only to an emphatic notion of meaning that encompasses purposes, causes and reasons. For a concept of meaning stripped of this baggage, however, it is foundational.

The oscillation of the debate around the pair "justification" and "selection" signaled a Leibnizian conceptual constellation. The *Theodicy* expressed the problem of cosmological justification as the giving of moral reasons for existence *tout court*. The relationship between contingency and justification, framed by theodicy, enabled Luhmann to critique Habermas for the Panglossian optimism of his attempt to make normative justification an immanent constituent of social order. For Luhmann, however, any attempt to reduce contingency to justification for the sake of

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[4] Niklas Luhmann, "Systemtheoretische Argumentationen – Eine Entgegnung auf Jürgen Habermas," in *Theorie der Gesellschaft oder Sozialtechnologie: Was leistet die Systemforschung*, by Jürgen Habermas and Niklas Luhmann, ed. Karl Markus Michel, Auflage: 2. (Frankfurt a.M.: Suhrkamp, 1974), 326–27.

[5] Luhmann, 297.

[6] Luhmann, 379–80. Italics are my own.

[7] An argument Luhmann adapted from Blumenberg. See, in particular, Hans Blumenberg, "Lebenswelt und Technisierung unter Aspekten der Phänomenologie," in *Wirklichkeiten in denen wir leben: Aufsätze und eine Rede* (Stuttgart: P. Reclam, 1981); Hans Blumenberg, *Theorie der Lebenswelt*, ed. Manfred Sommer (Berlin: Suhrkamp Verlag, 2010); Niklas Luhmann, "Die Lebenswelt — Nach Rücksprache Mit Phänomenologen," *ARSP: Archiv Für Rechts- Und Sozialphilosophie / Archives for Philosophy of Law and Social Philosophy* 72, no. 2 (1986): 176–94.

promoting and validating universal moral standards would inevitably shipwreck on the reef of contingency. All modern theories of reflection had been based precisely on this attempt. They failed not only because of their monological character, but also because they failed to grasp how moral norms were belated socially constructed responses to the dual problem of world contingency and complexity. Contingency may undermine *reason*, but it is the basis of *rationality*.

Leibniz, Luhmann suggested, had come only half way along this path. He had recognized that "the problem of contingency lies in the *expansion of complexity*," because he could see "the world as contingently created." But he did not "*yet have the possibility of arguing with complexity as a substitute for justification*," because he had instead tried "to justify the world at hand as the best of possible worlds..." This would be a mistake subsequently repeated by positivists, who had also justified the world, not in moral terms, but "only scientifically, in its facticity."[8] The *Theodicy* parried the paradoxes of evil in the world by a clever displacement of the vertical dimension of *Kontingenzsinn* onto the horizontal. Leibniz "solved" the conflict between the world's intelligibility, reliability, on the one hand, and the infinite power and freedom of God's will, on the other, which was only a problem for ontotheological metaphysics, by redirecting the philosopher's gaze away from the vertical plane of grounds towards the horizontal plane of complexity and alterity: the universal, reciprocal selectivity of every possibility with respect to every possibility.

Leibniz's *Theodicy*, as a protean theory of complexity, was perhaps the first to make the horizontal dimension of *Kontingenzsinn* explicit as a metaphysical, and not merely a practical theme. The universal horizontal selectivity by which every possibility, every possible monad, reciprocally selects every other makes the process and structure of the universe into a computer tasked with solving an infinite optimization problem. This world is the "best of all possible worlds" not because the God who selected it is "good," but because it represented the solution to this optimization problem. The selection is *rational* because it is the "best" according to the measure of maximal variety, of maximal compossibles. Leibniz thus subtly made the world's "perfection" equivalent to its optimality. But in so trading the vertical for the horizontal, Leibniz transformed what began as a moral-existential problem into a technical problem. As a purely quantitative criterion, the selectivity of compossibility had no necessary connection to human suffering. The *Theodicy* seemed to solve the problem of evil by only dispensing with it through a mathematical-rhetorical sleight of hand.

This sleight of hand only worked, however, because it retained the ontotheological scaffolding of "grounds" and justifications, that is, the vertical dimension. Ultimately the theory of complexity, of compossibles, provided Leibniz with the *criterion* of justification. It did not dispense with it. Even in his most rarefied metaphysical speculations, in his most technical mathematical innovations, Leibniz's motive was always theological, moral, and juridical. His metaphysics, as Patrick Riley has insisted, invariably strove after a "universal jurisprudence."[9] Even while striving to check to arbitrariness of nominalist voluntarism through the horizontal logic of selectivity, for Leibniz there was no question of doing away with divine voluntarism or ontotheological metaphysics altogether.

Luhmann's theory looks a lot like the *Theodicy* purged of the remnants of ontotheology. Instead of cleaving to the vertical dimension of "grounds, "which entailed something like the juridical category of responsibility, Luhmann opted for the horizontal dimension of *Kontingenzsinn* as "selectivity." in the *Theodicy* Leibniz argued that divine "creation" was itself a "selection" out of an infinite number of possible worlds.[10] Rendering the *Theodicy* comparable to systems theory produces

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[8] Luhmann, "Systemtheoretische Argumentationen – Eine Entgegnung auf Jürgen Habermas," 313.

[9] Patrick Riley, *Leibniz' Universal Jurisprudence: Justice as the Charity of the Wise* (Cambridge, MA: Harvard UP, 1996).

[10] "At first theologically clothed as the contingency of the world, which God could have also created otherwise (and so still thought only from the perspective of the contingency of action, which in God coincides with experience), a

a strange result: Leibniz's best of all possible worlds is already a selective achievement, dictated according to a criterion of optimality, the highest measure of variety with the fewest means. That is, Leibniz's actual "world," as a totality of actual compossibles, roughly corresponds to Luhmann's concept of a system. The system's "world" then resembles Leibniz's "possible worlds." As Luhmann put it, Leibniz's "world itself becomes a system, while that which functions unacknowledged as world-representation, namely, the world of contingent worlds, is reduced to logic."[11]

By employing the language of theodicy to parry Habermas's critiques, Luhmann essentially played off the two dimensions of *Kontingenzsinn* against one another as the respective constituents of two modes of rationality. Habermas, as much as he too strove to construct an anti-foundationalist and postmetaphysical theory, nevertheless continued to cleave to the vertical dimension of grounds and justifications in constructing a theory of communicative reason, and so would be forever haunted by the problems of grounds, infinite regress, nihilism, and a guilty conscience. And it condemned his theory to perpetual inadequacy with respect to the complexity of the modern world. A theory of grounds could simply never marshal the requisite complexity to cope with modern functionally differentiated societies. But then why did Luhmann himself nevertheless retain *Kontingenz*, that paradigmatic term of old European ontotheological metaphysics, instead of resting content with "complexity" and "selectivity?"

Evident already in his demotion of the concept of purpose from its position at the helm of instrumental reason, the traces of the vertical dimension in Luhmann's systems theory culminated in a concept of meaning (*Sinn*) that inherited its logical model from Leibniz's theodic cosmology, while purging it of anything smacking of a "higher purpose," a connotation still dominant in German and English.[12] Questions of the "meaning of life" and "history" continued to invoke the *Sehnsucht* for a transcendent end in the form of perfection and fulfillment. Karl Löwith's *Meaning in History*, for example, drew on these semantic reservoirs to critique the philosophy of history as a secularization of Christian eschatology, using the terms "meaning" and "purpose" more or less interchangeably.[13] The semantics of meaning that makes completion, unity and wholeness into the normative pole of existence, persists in minimal form in the Kantian "regulative ideas;" in Schiller's "world history is the world court" and the Hegelian Absolute; in Weber's neo-Kantian concession that meaning and values ultimately derive from irrational, religious origins, a reservoir modernity can only deplete but never replenish; and finally in Habermas's apparent recourse to the Weberian position in his recent writings on religion.[14] Contingency, for this tradition, acted as a counterconcept to meaning,

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multiplicity of possible world constructions subsequently becomes conscious and made available for selection [zur Auswahl gestellt] in the universal comparison of nations and times, in the philosophy of reflection, in the experience of the change of hypotheses in scientific progress and the conventionality of scientific measurement methods and conceptual apparatuses—to mention just a few moments. The problematic of an excess of possibilities, of the *possibile logicum*, is displaced from the past (reduced through creation) into the future (to be reduced by planning), out of the possibility of other worlds into other possibilities of this world." Luhmann, "Systemtheoretische Argumentationen – Eine Entgegnung auf Jürgen Habermas," 393–94. Hence it is no 'accident' that those contingencies regarded by the legal system as "acts of God" are precisely those to which no "grounds" can be assigned within the domain of human responsibility. Attribution is thereby returned to its origin: a God who wills contingently.

[11] Luhmann, 313.

[12] Niklas Luhmann, "Zweck — Herrschaft — System: Grundbegriffe und Prämissen Max Webers," *Der Staat* 3, no. 2 (1964): 129–58; Niklas Luhmann, *Zweckbegriff und Systemrationalität: über die Funktion von Zwecken in sozialen Systemen* (Frankfurt (Main): Suhrkamp, 1973).

[13] Karl Löwith, *Meaning in History: The Theological Implications of the Philosophy of History* (University of Chicago Press, 1957).

[14] Peter E. Gordon, "Critical Theory between the Sacred and the Profane," *Constellations*, May 1, 2016.

something which meaning must "explain away;" a hiccup or deviation interrupting the provision of wholeness, which might be yet restored or redeemed through some kind of last judgment.[15]

While I would not go as far as Protestant theologian Trutz Rendtorff in claiming that the Luhmann-Habermas debate recapitulated old theological controversies in the language of social theory, Luhmann's decision to foreground contingency with all its theological baggage imparted a new pathos to the debate less detectable in previous works.[16] I am not arguing that Luhmann was some kind of closet theologian. But the intimate relation between a systems-theoretical account of meaning and the theodicy-derived concept of *Kontingenz* at the most foundational level of Luhmann's otherwise anti-foundationalist system-theory suggests that he discerned therein an ethical and metaphysical reorientation whose stakes stretched beyond the supposedly disinterested purview of social scientific methodology.

It is no accident that Luhmann turned his attention to the sociology of religion at the precise moment he first began to avail himself of the full scope of modern *Kontingenzsinn*. His first work on religion, "Religious Dogmatics and the Evolution of Society," was published in a small volume in 1972, eventually making its way into Luhmann's first monograph on religion, *The Function of Religion* (1977).[17] There he more or less defined the function of the subsystem of religion as one of managing the "indeterminacy" of all meaning, the radical contingency of those excess possibilities that "transcend" the immanently given. In fact, to the very end he continued to recapitulate Blumenberg's argument relating *Kontingenz* to the theological problems that gave rise to the modern world. "In retrospect," he wrote in 1991, "it seems as if the concept of God had only provided a dress rehearsal for society, with the unexpected side effect of semantically preparing society's entry into the modern world. We are concerned with, so to speak, preparatory developments, or preadaptive advances, as if we had accommodated ourselves to the contingency required later within a traditional society with the help of religion, that is, within a world secured by God."[18] On several occasions he also noted the deep affinities between the concept of autopoiesis and the theological doctrine of *creatio continua* or "continuous creation." Autopoiesis, he averred, could be read as an immanentized version of *creatio continua*, in which a system does not simply have "inertia," but must constantly reproduce itself from every moment to the next.[19] And although every subsystem of society had its own "contingency formula"—a term Luhmann used in his late work on "second order observation" to designate a kind of absolute universal principle each subsystem employs to manage the paradoxes of its constitutive self-reference—the model for every other subsystem was clearly that of religion: "God."[20]

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[15] On the issue of judgment and meaning for history as a whole, see Hans Blumenberg, *Care Crosses the River*, trans. Paul Fleming (Stanford, Calif: Stanford University Press, 2010); Reinhart Koselleck, "Geschichte, Recht, und Gerechtigkeit," in *Zeitschichten* (Frankfurt am Main: Suhrkamp Verlag, 2000); Reinhart Koselleck, "Vom Sinn und Unsinn der Geschichte," in *Vom Sinn und Unsinn der Geschichte: Aufsätze und Vorträge aus vier Jahrzehnten*, ed. Carsten Dutt (Berlin: Suhrkamp, 2014).

[16] Trutz Rendtorff, *Gesellschaft ohne Religion?: theologische Aspekte einer sozialtheoretischen Kontroverse (Luhmann-Habermas)* (München: Piper, 1975).

[17] Niklas Luhmann, "Religiöse Dogmatik und gesellschaftliche Evolution," in *Religion - System und Sozialisation* (Luchterhand, 1972); Niklas Luhmann, *Religious Dogmatics and the Evolution of Societies*, Studies in Religion and Society, v. 9 (New York: E. Mellen Press, 1984); Niklas Luhmann, *Funktion der Religion* (Frankfurt am Main: Suhrkamp, 1988).

[18] Niklas Luhmann, "Contingency as Modern Society's Defining Attribute," in *Observations on Modernity*, trans. William Whobrey (Stanford, CA: Stanford University Press, 1998), 55.

[19] Luhmann, 51.

[20] Niklas Luhmann, *A Systems Theory of Religion*, ed. Andre Kieserling, trans. David Brenner and Adrian Hermann (Stanford, California: Stanford University Press, 2013), 105–32 Other contingency formulas include "justice" (law), "scarcity" (economics), "legitimacy" (politics), and "learning objectives" (education).

The persistence of the pathos of vertical *Kontingenzsinn* in Luhmann's systems theory thus forces the question of why he decided to hold on to such a semantically loaded term in the first place, when so much of what he attempted to do with the term had already been achieved by the concepts of selectivity, possibility, and complexity. Why not, for example, coin one of the neologisms for which German philosophers are famous? Even as he tried to replace its vertical, existential dimension with the disarming irony of the cybernetic horizontal, much of the existential pathos of the absurd remained in Luhmann's invocation of *Kontingenzsinn*, as evidenced by his own attributions of his interest in the concept to his experiences of the arbitrary and the absurd under the Nazis.[21] It preserved a powerful rhetorical reference to the theologically coded questions of relationship between suffering and existence, voluntarism and determinism, caprice and fate, absurdity and cosmic order, moral-legal judgment and redemption.

Like many neoconservative members of the *Flakhelfer* generation, such as Odo Marquard and Hermann Lübbe, who also promoted the semantics of *Kontingenz*, Luhmann bristled at demands for *Vergangenheitbewältigung*, for reckoning with the past. But unlike the former, who aimed to restore the continuity of German identity and tradition by unburdening it of the stigma of the Holocaust, Luhmann emphatically tried to distance himself and his theory from the "classics" of the German tradition. He did not fit the profile of the "German German" of Dirk Moses' typology.[22] For Lübbe and others *Kontingenzbewältigung* may have functioned as an alternative to *Vergangenheitbewältigung*. But in the cases of Luhmann and especially Blumenberg, the *Halbjude*, the problem was far more complex. *Kontingenz* only destabilized the questions of guilt, responsibility, justification, and cosmic evil insofar as it also maintained them. Like all meaning, *Kontingenzsinn* preserved a reference to the other possibilities it bracketed out. The elements of the horizontal dimension of *Kontingenzsinn* could not escape the attractive pull of their selective affinity to its vertical dimension. This was the symptomatically ambivalent pathos of *Kontingenzsinn* as a paradigm of modern rationality. As much as its cybernetic incarnation could be mobilized to chart a course through almost any maze, it could not escape the labyrinth of theodicy.

[21] See the discussion in Chapter One. Luhmann's major references to the experience of contingency under Nazism can be found in Friedrich A. Kittler, "Ein Herr namens Luhmann," in *"Gibt es eigentlich den Berliner Zoo noch?": Erinnerungen an Niklas Luhmann*, ed. Theodor M. Bardmann and Dirk Baecker (Konstanz: UVK, Universitätsverlag Konstanz, 1999).
[22] A. Dirk Moses, *German Intellectuals and the Nazi Past* (Cambridge: Cambridge University Press, 2009).

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