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UNIVERSITY OF CALIFORNIA, SAN DIEGO

The Biopolitics of the Vegetative Subject

A dissertation submitted in partial satisfaction of the
requirements for the degree
Doctor of Philosophy

in

Communication

by

Etienne Pelaprat

Committee in charge:

Professor Valerie Hartouni, Chair
Professor David Serlin, Co-Chair
Professor Michael Cole
Professor Marcel Hénaff
Professor Stefan Tanaka

2010

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Co-Chair

Chair

University of California, San Diego

2010

DEDICATION

For Val, who guided me the whole way.
In love, gratitude, and admiration.

EPIGRAPH

The critical ontology of ourselves has to be considered not, certainly, as a theory, a doctrine, nor even as a permanent body of knowledge that is accumulating; it has to be conceived as an attitude, an ethos, a philosophical life in which the critique of what we are is at one and the same time the historical analysis of the limits that are imposed on us and an experiment with the possibility of going beyond them.

Michel Foucault, "What is Enlightenment?"

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VITA

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ABSTRACT OF THE DISSERTATION

The Biopolitics of the Vegetative Subject

by

Etienne Pelaprat

Doctor of Philosophy in Communication

University of California, San Diego, 2010

Professor Valerie Hartouni, Chair

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The aim of this thesis is to develop a critical understanding of shifting definitions of life and death in contemporary society, and to situate a set of arguments in the biopolitical literature of the humanities and social sciences. I have focused, in particular, on developing a “genealogy of the vegetative subject.” By vegetative subject, I do not refer simply to the contemporary medical-legal status of the brain-dead patient or “end of life” care. I refer instead to the historical permutations of assemblages that produced a human subject on a threshold of life and death as a response to ways a discourse and knowledge of human life itself, located in the neural production of mind, posed concrete bioethical, legal, medical, scientific, and even economic problems. I argue that the vegetative subject’s brain and body are historical figures through which we may trace and

render visible how our complicated encounter with death today is negotiated and shaped by particular technical advances, knowledges of material life, cultural production, and relations of power. At its core, this thesis develops a genealogy of the vegetative subject along three axes. The first axis recovers the historical emergence of the rationality of “life itself” that animates a knowledge and discourse of human life, primarily articulated through the brain, neuroscience, consciousness and cognition. The second axis examines how this threshold life and death, and its articulation across particular kinds of bodies, produces concrete “biopolitical struggles” that are addressed by what Foucault called strategies of “governmentality.” Finally, the third axis considers the vegetative subject as a site of cultural production, one where discursive “acts of seeing” govern the recognition of a human other and one’s relation to it.

Introduction: The biopolitics of the vegetative subject

The aim of this thesis is to develop a critical understanding of shifting definitions of life and death in contemporary society, and to situate a set of arguments in the growing biopolitical literature of the humanities and social sciences. I have focused, in particular, on developing a “genealogy of the vegetative subject,” and take as my point of departure the recent, well-known case of Theresa Schiavo, a vegetative patient who remained on life-support for fifteen years. Indeed, the major work of this thesis is to organize an historical and contemporary critique of life and death that reframes the case of vegetative patient as a contemporary social, legal, and ethical *subject* of power.

By vegetative subject I refer not only to the contemporary medical-legal status of the brain-dead patient or “end of life” care, but to the historical permutations of the social, legal, ethical, and economic domains that produce the human figure between life and death. I consider, in short, the vegetative subject to be a plural figure; an historical matrix through which our complicated encounter with life and death is routinely negotiated and shaped by events, technical advances, advances in our knowledge of biological life, the experience of death, cultural production, and relations of power. I develop my arguments by tracing a genealogy of this subject along three axes. The first axis is a rationality of “life itself” articulated primarily through the brain, neuroscience, consciousness and cognition. The second axis examines how the life itself of this subject, and its articulation across particular kinds of bodies, poses problems of what Foucault called “governmentality.” Finally, the third axis considers the vegetative subject as a site

of cultural production; a human figure produced and governed by discursive acts of seeing.

Thus, in contrast to most studies of the vegetative subject, I argue that we must consider the vegetative subject as a biopolitical phenomena. That is to say, the vegetative subject needs to be understood as a problematization of biological life and social existence rendered intelligible by forms of knowledge and power that govern the “conduct of conduct” across different domains of social, economic, and legal domains. Tracing the genealogy of the vegetative subject allows us to give an account of the historical contingencies that make up one aspect of our biosocial present, and to track these contingencies as they permute to form our biopolitical future. Articulations of the vegetative subject are not limited to “right to die” discourse, end of life care, or in organ procurement and exchange. We also find it in cognitive sociology, the humanism of the neurosciences, narratives of public health, and philosophical sources of self-understanding. The generality of the vegetative subject, in short, corresponds to the fact that the particular problems it poses to medicine, law, ethics, or commerce regarding self-interest, autonomy, and living the “good life” implicate rationalities of life, death, culture and power widely distributed in contemporary biopolitical society.

Chapter 1 examines the visibility of Ms. Schiavo’s body to recover the medical, legal, and cultural production of her body *as a* vegetative body. This examination will allow us to open up a broader set of questions that the rest of the thesis will take up. Indeed, the visibility of the vegetative body -- how to recognize and see it and read oneself in relation to it across distinct material and discursive practices of health, law,

economy, science, etc. -- requires configuring a particular relation between a relatively new epistemology of biological life, medical and legal death, and the kind of human subject who can occupy it. The visibility of this body, which I will reframe as a subject, is also historically contingent. The meaning of the visible vegetative body was up for grabs in the last three months of Schiavo's life when it became an object of public scrutiny. And it was up to a particular paradigm of vision and mediation, what I call the "dying and death consensus," to contain and re-normalize the excesses of signification during this period. Part of the work of this chapter will therefore be to problematize the "dying and death consensus" into an object of historical and critical research.

Chapter 2 develops the conceptual and methodological arguments with which to carry a broader inquiry into the vegetative subject and the dying and death consensus. I will draw heavily on a particular literature -- biopolitical and governmentality studies -- to problematize both. One aim of this chapter is to situate the historical production of the vegetative subject as a biopolitical subject. Biopolitics, a notion introduced by Michel Foucault, roughly corresponds to the ways in which our knowledge of ourselves as living beings is a central object of rationalities of power. Foucault called these forms of power *biopower*. I will propose that the category of *cognizant life*, which refers to the bare biological processes of the brain sufficient to produce consciousness and mind, refers to a form of life, specific to the last century, which organizes a knowledge of ourselves as living beings. It is made possible by the development of a new epistemology in the cognitive sciences. The other aim of this chapter is to reframe the "dying and death consensus" as what Foucault called a *governmental apparatus*; i.e., as a rationality of

power which, in this case, renders intelligible cognizant life as a human subject and deploys it across various social arrangements of dying and death. I engage in an exegesis of Foucault and others' texts to argue that the biopoliticization of the cognizant life of the vegetative subject is coextensive with a governmental apparatus that seeks to secure a space of freedom at the "end of life."

Chapter 3 develops an genealogical account of cognizant life in three parts. The aim of the chapter is to render visible the "form of life" specific to the vegetative subject. After a brief sketch of the epistemology of the nervous system in early modernity, I trace how new clinical medical practices and scientific inquiries in the late 19th and early 20th century developed a knowledge of the brain as an organ of the mind. Indeed, an important, epistemic permutation in the nervous system unfolds in the 19th century so that the traditional relationship between body and brain, where the former used to dominate the latter, becomes inverted. By the middle of the 19th century it became possible to ask how the brain, as the organ of individual mind, conditions the experience of human beings as living beings in a living environment. We will then trace the origins of cognitive science and contemporary neuroscience to recover basic assumptions about how a physicalist science of mental functioning was born. These origins were critical in giving the dominant discursive and scientific character to the mind as a mechanized machine of mental activity, and thereby of cognizant life. Third, we will trace how cognizant life acquired a relation to death, which is to say brain death. It is within all three of these pillars and their relations that cognizant life became intelligible and allowed for the birth of the vegetative subject. Indeed, the argument here is that

accounting for a vegetative subject requires placing, genealogically, bare consciousness, subjectivity, and death into a paradigm of mutual intelligibility, itself rendered intelligible across discursive practices.

In chapter 4, we turn our attention to a critique of the “dying and death consensus” as a form of biopower, i.e., as an apparatus of government. We will consider how cognizant life emerges in medical and legal institutions as a set of biopolitical struggles to which a governmental response is mobilized through an apparatus. What is critical to apparatuses as forms of power is that they seek to transform an experience (such as death) into a field of relations and objects that it may govern. What is critical to the form of governance specific to the end of life, organized through the vegetative subject, is to secure a social, legal, and economical space of freedom at the end of life. Thus, we will also consider how this governmental response is organized by mobilizing a particular form of ethics, one that seeks to secure a “practice of freedom” at the end of life. But what is so important in this critique of the dying and death apparatus is the rationality of power that it deploys to intervene in all kinds of social contexts. Indeed, what is unique to the form of power that operates to *govern* the vegetative subject is that it simultaneously governs social relations, legal practices, the actions of the State, as well as economic processes and systems of social provision. Our critique of the vegetative subject as a biopolitical subject will show that the form of power at stake here governs the subject by collectivizing the problem of medical care, dying and death.

In chapter 5, the concluding chapter, I will summarize the main arguments of the thesis to conclude that the biopolitics of the vegetative subject are of a particular kind: we

have, today, made possible the existence of a human subject, caught on the threshold of life and death, on the condition that we are uncertain, in nearly every respect, that a subject exists at all. This is not a politics that assumes a particular kind of political subject to exist, and which it thereby responds to. What the case of Ms. Schiavo and the vegetative subject reveal is that we now have a biopolitics of law, ethics, society, health, and economy which governs a field of activities *on the condition* that a subject may not exist in the first place. Indeed, it is precisely because this form of power seeks to secure a place of freedom “at the end of life” that it has made possible the existence of a subject there. But as I will conclude, we may well wonder what the deployment of this form of power entails for a society which is, with greater force and speed, redefining the meaning and the conditions of life and death for human beings as living beings.

Chapter 1: The Vegetative Body of Theresa Schiavo

“The question had ultimately to do with whether or not there could be occasions when the broad economic and ethical interests of the society at large should outweigh any individual claim to either the most advanced medical attention ... or indefinite care.”¹

“A living figure outside the norms of life not only becomes a problem to be managed by normativity, but seems to be that which normativity is bound to reproduce: it is living, but not a life.”²

1. The visibility of Theresa Schiavo’s vegetative body

On the March 31st, 2005 front page of the *The Washington Post*, here is how a reporter described the scene outside the Florida hospice where Theresa Schiavo, a vegetative patient whose body was kept alive by feeding tube for 15 years, finally died: “Within moments of Schiavo's passing, the plaintive notes of ‘Amazing Grace’ filled the air, twisting out of a scuffed trumpet as an impromptu choir formed outside her hospice. A man slumped against a metal post, shaking his head and murmuring a prayer. A woman in a purple nurse's smock sobbed, unable to speak.”³ The mourners watched

¹ Didion, Joan. 2005. “The Case of Theresa Schiavo.” *The New York Review of Books*, June 9.

² Butler, Judith. 2009. *Frames of War: When is Life Grievable?* Brooklyn, NY: Verso.

³ Roig-Franzia, Manuel. 2005. “Long Legal Battle Over as Schiavo Dies.” *The Washington Post*, April 1, A01.

solemnly as an armored car, guarded by police officers, transported Ms. Schiavo's body to the offices of the city medical examiner for an autopsy. Moments later, a Franciscan friar and adviser to Ms. Schiavo's parents, the Schindlers, was asked whether or not the family would be attending Ms. Schiavo's funeral in Pennsylvania, as Mr. Schiavo, her husband, had planned. For years, the Schindlers and Mr. Schiavo were locked in a legal battle over the termination of Ms. Schiavo's life-sustaining treatment. Attending these services, the friar explained on a makeshift altar outside the hospice, "would be like a victim's family attending services with the murderer." Jose Saraiva Martins, head of the Vatican's office for sainthood, declared in a press release that the removal of Schiavo's feeding tube constituted "an attack on God," and that her bodily treatment was "cruel." Effigies of Ms. Schiavo's body -- some strung from scaffolds and crucifixes, others lying prostrate on the ground -- mingled with the bodies of protesters gathered outside the hospice in protest. Meanwhile, Tom DeLay, the speaker of the House of Representatives, took to another stage. Echoing comments by Randall Terry (a "pro-life," anti-abortion zealot) that there would be "hell to pay," DeLay warned on television that the "time will come for the men responsible for this to answer for their behavior."

For the national audience gripped by Ms. Schiavo's legal and medical death in 2005, these and other dramatic images on television and in print were a mere postscript; an echo of a collective experience that had consumed public attention for two months. Although Ms. Schiavo's saga reached its crescendo at the end of her physical and legal life, it was the whole world of medical expertise, mundane care, cutting edge neuroscience, combative litigation, heated family quarreling, public protests, and political

maneuvering that, night in and night out, organized the visibility and meaning of Ms. Schiavo's body as the centerpiece of narratives and conflicts.

Among the more prominent narratives was the one that Ms. Schiavo was a figure on the ethical, medical, and legal threshold of life and death. Her body represented the human experience materialized at the intersection of personhood and the medical capacity to extend mere physical life *ad infinitum*. From a normative standpoint, Ms. Schiavo's relation to death as a "right to die" subject was the only story to tell here, one that had been, since the Quinlan ruling in 1976 and Cruzan ruling in 1990, a matter of properly adjudicating an individual's "end of life" wishes.⁴ All that mattered was whether Ms. Schiavo could be "allowed to decide to die," and how that decision could be brought by legitimate court proceedings when, in fact, she lacked the capacity to decide at all due to her vegetative state.

This particular narrative of the Schiavo case, however, hardly captures the variety of meanings and stories of the vegetative body offered during the first few months of 2005. The narrative of a right to die case was only one in a number of stories and cultural discourses that, drawing relations between physical life and social life through Ms. Schiavo's vegetative body, attempted to render intelligible what we were seeing, the limits of what could be done, and what ought to be decided. Indeed, the meaning of the Schiavo case, primarily organized through a reading of her body, was up for grabs as an object of cultural and political signification. So too were the constitutive elements of the

⁴ *In re Quinlan*, 355 A. 2d 647 - NJ: Supreme Court 1976. *Cruzan v. Director, Mo. Dept. of Health*, 497 US 261 - Supreme Court 1990.

case -- such as how to recognize human life, the duties and limits of medicine, the interventions of law, family quarreling, the right to refuse medical treatment, or the nature of social obligations to those who are “incompetent.”

Outside Ms. Schiavo’s hospice, throngs of religious-right groups had gathered to protest. They argued that removing Ms. Schiavo’s feeding tube would begin a slippery slope of state-sanctioned euthanasia ushered in by so-called “activist judges,” a code-phrase, largely nurtured by the right, to denounce liberal judges. Protesters theatricalized Ms. Schiavo's body by making gruesome effigies staged to appear as prisoners of the medical system and martyrs in medical garb (one effigy, dressed in a hospice outfit, was crucified). As if this message were not clear enough, many protesters handcuffed themselves to gurneys, silenced themselves with tape over their mouths and lay their bodies in the street in front of television crews or in such a way as to block entry to the hospice. The rhetoric of violence instantiated through the vegetative body and its avatars fit neatly, as was dominant in this period, within a grammar of fear, insecurity, and its proposed corrective: asserting a “culture of life” to fight against bodily precariousness invoked by “liberal” social or national security policies. These were anxieties and stakes about which no compromise was possible, and in which bodily security was necessary to preserve at all costs. She was not dead, they argued, or even dying; she was a living person receiving basic medical care; any decision on her death was, here, a decision on “murder.”

On television and in newspapers, politicians and pundits debated the meaning of the nation’s frenzy over the legal case of Ms. Schiavo. Was this only a “right to die”

case; was this indeed a case of imposed euthanasia on a living being? Or did the different opinions about how to care for this body represent a more general division in the social commitment to life and the dying? David Brooks, writing in *The New York Times*, argued something more fundamental was indeed expressing itself: whereas liberals were content to follow a legal process, he argued, conservatives were inclined to draw lines in the sand and apply “moral imperatives,” whatever the cost. Right-leaning politicians, eager to brandish their “culture of life” credentials, quickly denounced the actions of the courts and Ms. Schiavo’s husband. They mobilized theologians and religious leaders to stand by the Schindlers’ side outside her hospice, reproducing a common, and false, assumption that the right was a “party of values” with a monopoly on moral piety. Tom DeLay raised the rhetoric to biblical heights, claiming the Schiavo case finally exposed “what is happening in America,” by which he meant the culture of death inherent to liberal, progressive policies, and its cold investment in science, which undermined “the sanctity of life.”

Ms. Schiavo’s body was everywhere, her animated but “merely reflexive” gaze and face etched into the visual spectrum of a national audience as so many photographs, videos, and sub-frames on the television screen. What is unique to the vegetative state as a neurological state is that, though permanently unconscious, the body and face of a patient continues to move, emote, and behave spontaneously, giving the appearance of life. Thus, the specter of imminent death provided the discursive resources for a counter-narrative that rendered Ms. Schiavo’s body as a living being problematic. In this in-between space, the relationship between Ms. Schiavo as a living body and as a living

person became open to contestation. This was not only as a body that could articulate a form of biological life within a living body but, more specifically, a living person who continued to live for others because of her living body. How Ms. Schiavo's body was rendered intelligible (as a daughter, wife, victim, etc.) was central to grounding the meaning of questions about how to treat her body and act properly. Indeed, what gave the vegetative body of Ms. Schiavo its moral and ethical plot line was the struggle and fight between Michael Schiavo and the Schindlers over who could control what could or could not be done with respect to her end of life care.

In 1997, Mr. Schiavo had filed a petition to terminate his wife's life-support and, since then, Schindlers had filed repeated appeals to rescind it. The legal procedures that adjudicated the end of life for Ms. Schiavo were not simply a story of deciding to end life. We came to learn that this decision required sifting through a family's claim to care for their daughter indefinitely and a husband's attempt to formulate a narrative in which removing his wife's feeding tube was not only part of his "responsibilities" as a loving husband but, in the same breath, something he said his wife "would want for herself." The legal process required reading the vegetative body as that through which one might control one's own relation to death. And, in the case of vegetative patients, the state had a right to control how to determine a patient's own end of life choices when they could not articulate it themselves. But how could we know what Ms. Schiavo wanted when her bodily condition made it impossible for that to be known? Bioethicists flooded the public with a new vocabulary to mitigate the uncertainties: they urged the public to complete legal documents known as "living wills" and "advanced directives," so as to make one's

end of life wishes clear and thus avoid a situation like the one Ms. Schiavo and her family now faced.

The vehicle of family division allowed many commentators to reflect on the growing perception that the case of Ms. Schiavo was not limited to this one incident but was, in fact, something “we all” could come to experience in relation to our loved ones. There was another way in which the vegetative body was read as a collective problem. Economists argued that this debate was a matter of public healthy policy, the normative limits of law to deal with death as a medical commitment, and the social expenditures that provide medical care to individuals that might, at some point, be understood as “futile.”

In this regard, the body of Ms. Schiavo became a source of social parables; an axis of reflection not simply on the ties that bind but, in fact, an interruption of the ties that bind and which have to be remade. For the vegetative body, as Michael Schiavo had repeated, is a body that requires “total care.” It exists in a state of utter dependence on the actions of others. It was in this sense, as Joan Didion put it a few months after Ms. Schiavo’s legal death, that the matter at hand may have started with a debate about how we “define a life worth living” but terminated with a more fundamental, social, moral and also political problem: of balancing between “broad economic and ethical interests of the society at large” and the right of individuals to “indefinite care.” But how these “interests” might be framed, and how a “right” of individuals is organized to compete with those interests, was a calculus too touchy to discuss explicitly outside of the circumscribed, sterile frameworks of law and bioethics.

“Indefinite care” referred to more than medical care, technical capacity, or even legal protection. It problematized the relation between our capacity to harness biology as a discourse of human life and the conditions through which we recognize personhood, and what this entails for our own actions. As was remarked in media coverage of the Schiavo case, the problem of care extended to how we understood ourselves as “ethical and moral” persons in relation to this body. How to construct oneself as an ethical subject in relation to Ms. Schiavo expressed the most contested meaning of the term “indefinite.” Appeals, for example, to the “moral duty” of Catholics to care “at all costs” for the life of an other notwithstanding, the question of what constituted care, why it should be indefinite, and how it might be terminated were recurring topics of debate. Cornel West, appearing on the show *Real Time with Bill Maher*, reiterated a different frame of reference in this regard: when “biography” is over, it doesn’t matter where “biology” stands. This remark only intensifies, however, our attention to how Ms. Schiavo continued to operate as a central figure in the lives of others who cared for her. Here, the Schindlers, conservatives, and disability rights groups argued that Ms. Schiavo *was* living her life as a disabled person and that the scenes of affection and love provided by the Schindlers in videos of their interactions were evidence of that.

So what is the vegetative body, and what does it mean, today, that nearly 50,000 Americans are vegetative? What do we make of the complicated visual and rhetorical tapestry through which the vegetative body of Ms. Schiavo was woven to support a multitude of narratives about care, dependence, social family upheaval, economic costs,

the limits of law, organizing one's "end of life wishes," responsibility, and the relationship between the technical capacity to sustain living processes and the social relations that sustain social being? What does it mean, furthermore, that the visibility of this patient is mediated by categories of life and death that ethicists, neurologists, and physicians continue to debate and revise? Indeed, what does it mean that the vegetative body occupies such a prominent place in our debates about life and death at all? How do we interpret the various kinds of stories, lessons, and arguments mobilized through the figure of Ms. Schiavo's vegetative body, and how, as many claimed, was this body a window or reflection of contemporary American society?

In this chapter, I retrace the lines and contours that are drawn around the vegetative body to recover the constitutive discursive and material elements that render this body intelligible *as a* vegetative body. Indeed, what I want to retrace, in the 15-year odyssey of the Schiavo case, are the ways her body, brain, and death are rendered intelligible *as vegetative*. My aim is to raise a more general, yet limited, set of questions that will be investigated in the rest of the thesis. What does it mean, for example, that in the last 50 years we have redefined the location of death from the heart and the lungs to the brain? Is there a specific discourse of human life that has emerged to supply this definition with some meaning? And how far has this form of life extended as an object of medical, legal, and social thought? My sense is that the case of Ms. Schiavo will help us lay out the bare contours by which we may answer these questions more concretely.

This chapter unfolds in three phases. The first phase examines the medical and legal production of Ms. Schiavo as a vegetative body. For the first seven years after her

accident, Ms. Schiavo was scarcely an object of public deliberation or contestation. The production of her body as a vegetative body followed a predictable path that had been twenty-five years in the making. This path establishes a particular relation between biological life, medical and legal death, and the kind of human subject who can occupy it. Indeed, these discourses reproduce, through the vegetative body, a specific social arrangement of dying and death that has become a normative project of medicine, law and bioethics known as the “right to die” and “end of life” care. While there was a bitter dispute between the Schindlers and Mr. Schiavo over how this relation was negotiated, the role of the courts and clinics largely followed scripts that were not very contested at all.

However, when the Schindlers released a video of Ms. Schiavo in 2003, her body became an object of public scrutiny and destabilized conventional notions of life and death. What is so surprising about this period is that the meaning of the vegetative body as a social, economic, and ethical problem of life and death became so heterogeneous. Seeing and watching the body of Ms. Schiavo as a vegetative body meant many different things, as we have already seen. The polysemy of the construction of the vegetative body through ways of seeing destabilized notions of life, death, responsibility, legality, and piety. And it was because the vegetative body became unhinged from its normative, circumscribed institutional meanings that it became a centerpiece for a wholly different set of cultural narratives. Thus, the second phase of this chapter examines how these cultural narratives sought to reframe the social arrangements of dying and death.

Finally, the third phase of this chapter examines how these contestations over the meaning of the vegetative subject, and over the social arrangements of dying and death, were contained and re-normalized. I will invoke here what is widely known in medical, legal, and bioethical literature as a “consensus” about the end of life and the right to die. My aim, however, is to also show that this “consensus” is much more than a benign, moral, and normative set of means by which to legitimately bring about the death of an Other who wishes to die. By teasing out the elements of this “consensus” I hope to lay out the stakes that, in chapter 4, I will take on more rigorously as a question of power.

What this chapter investigates, then, is how a world of meaning is made and remade in and through the vegetative body, so as to not only produce it as an intelligible object of practice and thought (medical, legal, etc), but as a subject who continues to occupy social relations. A whole world must be reproduced around the vegetative body and, indeed, the production of a vegetative subject corresponds, at the same time, to the normalization of the social arrangements of dying and death.

2. Rendering visible the medical life and relation to death of the vegetative body

Often, as in the case of Ms. Schiavo, the medical clinic attends first in the long institutional and discursive formation of the vegetative patient. In 1990, Ms. Schiavo suffered a cardiac arrest in the middle of the night and, after severe anoxia, was revived but in a coma and taken to the ICU. After a week of urgent care, she emerged from her coma, but had suffered severe brain injury. A feeding tube provided nutrition and hydration. Although physicians knew she was severely brain injured, the depth of the

injury was unknown, and could not be known, until she emerged from her coma. When she did, it was necessary, to organize a medical diagnosis, to determine the nature of the brain injury.

The medical production of a brain injured patient, alive by virtue of life support, depends on making visible two forms of life: the life of the body and the life of the brain. Although many forms of cognitive and mental deficit result from aging, the capacity of medical technologies to sustain bodily life after catastrophic strokes or brain injuries has made it possible, in the last 50 years, to establish medical practices for patients who remain alive in spite of their devastating brain injury. For fifteen years, Ms. Schiavo's body and brain were subject to intensive medical care. It was between the body and brain as two discourses of life and medical attention that she was recognized as a vegetative patient. One form of care attended to the pathological and mechanical order of her body's physiological processes. The other to her brain's capacity to produce mind and consciousness. The interactions of both forms of life, however, constituted her as more than a medical patient. For the major question was whether or not her mind, as the activity of the brain, was embodied in the behaviors of her body. It was at the intersection of both discourses of life, then, that Ms. Schiavo's body traversed various legal institutions, ethical dilemmas, scientific discourses in order to mediate the relation of life and death.

Although it was immediately known that she suffered brain damage, the depth and gravity of Ms. Schiavo's brain injury was initially unclear. Determining the level of cognitive deficit is critical to complex treatment of the brain-injured patients. But such

determinations are also difficult to make. Research on how and where consciousness is produced in the brain is a nascent science and full of uncertainties. We know relatively little about the way the brain's cognitive and neural pathways organize higher level thought and the various faculties of consciousness. Many brain tissues are relatively plastic and may respond to electrical stimulation, which can help regenerate disrupted or damaged neural pathways. At the same time, since 1968 physicians and ethicists have accepted a definition of death specific to the brain -- brain-death -- which corresponds, in most accounts, to the total cessation of cerebral activity.

Thus while Ms. Schiavo's brain damage placed her precariously close to a definition of death, the fact that her brain retained *some* function meant that she was still technically alive and could possibly be rehabilitated. Yet even here there was uncertainty, for it was unclear which areas of brain, and therefore which kinds of cognitive faculties, could be rehabilitated in her case. In the first year after her accident, imaging devices and representational techniques, developed in the neurosciences, tried to make sense of her brain activity in order to develop a diagnosis. Although this sense-making relies on computed axial tomography (CAT) scans, electro-encephalograms (EEGs), and functional magnetic resonance images (fMRI), clinical methods also draw on interpreting the body's movements for evidence of awareness.

In contrast to the life of her brain and its relation to death, Ms. Schiavo's physical body remained alive and animated. Its physiological processes were intact. Once she emerged from her coma following her stroke, Ms. Schiavo behaved and emoted expressively. To be sure, a gastrointestinal tube compensated for her inability to

coordinate chewing and swallowing by providing alimentation and water directly to her stomach. Her needs for subsistence extended across a division of labor between nurses and doctors who treated myriad afflictions. Treating the body of a vegetative patient is painstaking, costly, at times galling, sometimes technically complex but usually mundane. Ms. Schiavo was often subject to infections (e.g., gangrene). She required muscle therapy to prevent arthritis and rigidification. Her body's hygiene was a source of constant concern. In short, her body was alive in clinics and hospitals as a consumer of health services and an object of relatively modest, unsophisticated, and routine medical treatments.

But her body was also a typical subject of medical care in another way. In the first few years, her health insurance provider covered a part of the bills; later, she qualified for Medicaid. In late 1991, when neurologists began to suspect her brain was not only permanently damaged but permanently unconscious, her husband filed a malpractice suit against his wife's obstetrician and physician for not detecting the potassium imbalance that appears to have precipitated her stroke. The settlement netted nearly a million dollars in damage compensation, and most of it was used to extend her medical care and provide experimental treatment.

What I want to suggest is that if Ms. Schiavo was a "vegetative patient," it was not only because her brain lacked the capacity for consciousness while her body's physiological processes remained intact. Both of these aspects of her condition were produced through the requirement to medically care for her. What I want to suggest is that there is more here than a diagnosis. To render Ms. Schiavo intelligible to medical

care-takers, an important discursive distinction was made between her brain and her body. This division was necessary in order to produce her vegetative body as an object of institutional knowledge and practice. She continued to live as a institutional body through two horizons of medical care, each of which set her body on two distinct paths of intelligibility and knowledge organized around establishing what this body was, how it continued to live, how it continued to rely on the actions of others, and how it occupied a relation to death. But at the same time, each horizon of life and care established certain limits on the other: the regulated body's life maintained the hope of cerebral rehabilitation, while the life of the brain expressed the limits of medical care for the body as "futile care."

These complex relations between the body and brain as objects of care were complicated by the peculiar expressiveness of Ms. Schiavo's body. The vegetative patient continues to have enough cognitive function to regulate the body's parasympathetic nervous system. In the case of Ms. Schiavo, for example, small changes to environmental light or temperature elicited cortical and subcortical reactions. She recoiled at pinpricks, warmed to nurturing touches, and moaned spontaneously. Sometimes, as her husband and family reported, she wept, laughed, and smiled. While doctors explained these behaviors as "merely reflexive," to the medically uninitiated they were evidence of a living person. The vitality of the vegetative body confounds the scientific claim that, due to a lack of mental presence, there is no there, there. Moreover, in relation to the provision of care, these merely reflexive reactions appear responsive to the touch of others. The vegetative body is more than a lump of functioning

physiological processes; it continues to embody a figure whose reaction to sense facilitates the belief that Ms. Schiavo's body is a "she" responding to "me."

Her reactive, emotive visibility, in relation to her daily bodily needs, allowed others to transfigure their pre-accident relations with Ms. Schiavo onto a new plane of social intelligibility. Michael, her husband, took her for walks in a wheelchair that held her body and head in place. He clothed her in the latest fashions and spritzed her with new fragrances. He trained as a nurse to better care for her specialized needs, and spent nights sleeping in a cot placed beside her gurney. Relations of marital fidelity and obligation were not abandoned but redrawn. So too, in a more limited way, did her mother, father, and siblings remake their relations with her to fit new patterns of care and significance. If Ms. Schiavo was in a space of limbo between life and death, as neurologists concluded by 1994, the fact that her body remained alive and dependent on the care of others to live maintained a meaningful social existence. The physical "life" of Ms. Schiavo's body and the "total care" it required was not limited to mere physical processes. In fact, her body's needs and animation allowed for a number of social relationships to be rebuilt on a new plane of social life. This was a plane on which institutional relations of dependence could be articulated as so many obligations, duties, and professions of others to provide health services; to execute their commitments; and to behave as loving husbands, mothers and fathers.

Despite the medical care for Ms. Schiavo's vegetative body and the way it routinely figured as a person in social relations, medical institutions and neurological care, by contrast, organizes the recognition of a person through the brain. For "our"

brain, we have come to learn and be taught, is the organ of personality, cognition, agency, and self-determination.⁵ It is irregular or abnormal activity in the brain that accounts for depression, anxiety, and other mental disorders. It is in the brain that emotions are regulated and moods are controlled. The brain is, finally, the seat of mind, thought, willful bodily control, and intentional acts that we direct at others.⁶ Rather than the visibility of the animated vegetative body, representations of brain activity (or lack therefore) are the ground of “personhood.” Only representations of the brain’s activity

⁵ The “life of the brain” has, in fact, become an object of increasingly complex forms of thought in the humanities and social sciences, not only in cognitive science (about which, again, I will say more in chapter 3), but also in evolutionary psychology, where the brain as an adaptive machine responds to pressures of natural selection and other ecological forces that, tens or hundreds of thousands of years ago (it is claimed), the particular species *homo sapiens* developed. We also see the brain emerging as a central object in moral philosophy (i.e., “how the brain makes decisions,” whence emerges the question: which parts of the brain are responsible for moral decision making), and rational choice economics (where there emerges a synergy between the rational choice hypothesis and particular, localizable processes of the brain to make decisions).

⁶ Although it is universally accepted today that cognition and consciousness are dependent on particular patterns of neural activity in the brain, “consciousness” remains a slippery category. In recent years, a number of repeated studies in neuroscience and neurophysiology have upended the classical definitions. Where is consciousness localized, how do we know which patterns of neural activity represent conscious activity, and how do we distinguish these patterns from, for example, visual processing or other neural patterns that integrate the senses but don’t “account” for thought or self-awareness? Indeed, many neuroscientists today are asking themselves this question: how do we know that some patterns of neural activity in patients that have been diagnosed as vegetative are not, in fact, evidence of an interior mental life?

were legitimate as evidence to make a diagnosis and prognosis.⁷ In contrast to mundane medical care, the condition of Ms. Schiavo's brain demanded the most cutting-edge technology and expert interpretation. In 1991, Ms. Schiavo received specialized rehabilitative stimulation at UCSF. However, after several weeks of attempts in specific areas of the brain thought to organize various cognitive faculties, no marked differences were registered. By 1992, it became clear that her brain could never support any form of consciousness or awareness. Not only did brain stimulation fail, but its failure allowed for medical personnel to conclude that the damage to Ms. Schiavo's brain was permanent. And it was at precisely this point that neurologists told Mr. Schiavo and the Schindlers not only that further rehabilitation efforts on the brain would be inconsequential, but that maintaining her bodily care might also be futile.

This futility had nothing to do with a diagnosis that she was brain-dead. She was *not* medically dead, or brain-dead, since spontaneous electrical cranial activity remained. The legal definition of brain-death requires the full cessation of all electrical activity in the brain. Residual brain activity that animated her heart, lungs and other basic

⁷ Reading the body of the vegetative body is not immaterial to determinations of coma or of a persistent vegetative state. Professional guidelines for the determination of a vegetative state require that the body be interrogated. How? In order to decipher "levels of coma" and "levels of consciousness" in vegetative patients, neurologists or physicians will, for example, contort the limb of a patient and "ask" him or her to return it to its original position or to some other position. This was the case in the exams by many neurologists who, eventually, were asked by the court to render an expert opinion on Ms. Schiavo's medical condition. The logic is clear: though severely brain-injured may not be able express "directly" if there is a "there" there, the body can function as a medium of communication. The Glasgow Coma Scale -- internationally accepted as a critical framework of diagnosing the comas and the vegetate state -- relies directly on this kind of examination and interpretation.

physiological functions kept her body not only alive, but reflexive and perceptibly living. However, since no recovery or improvement was possible, keeping her alive was *medically* futile. Yet as long as others might act to stem physiological disease, they could maintain her life indefinitely. But what it meant that she was “alive” was not entirely clear -- alive for whom and in what sense? While neuroscience insisted there was no “there” there, the continued animation of her body, and the way it remained caught and recognizable within discursive frameworks of social intelligibility, persistently acted against the interpretation that she was truly “gone.”

Here, then, is the result of Ms. Schiavo’s intelligibility in the discursive medical frames that diagnosed her body as vegetative. This body was, to be sure, the subject and object of two qualitatively different forms of life and death’s intelligibility and care, one tied to the life of the body, the other to the life visible in the cognitive processes of the brain. Both forms of life and living organized different ways of knowing and caring for the body that figured Ms. Schiavo as a “person.” From a medical point of view, however, only the life of the brain provides normative limits to the care for the body. The hope for the recovery from brain injury stemmed from the visibility of a body sustained by routine medical care, and the way in which the animated, lively, and reactive visage of this body allowed for the reproduction of a person prior to their accident along a new plane of social intelligibility. The first seven years following Ms. Schiavo’s accident were largely worked out along the contradictions between these two horizons of life and the way they organized not only the diagnosis of a patient, but enlisted the care of others. On the one hand, the life of the brain foregrounded categories of awareness and consciousness to

represent the person. On the other hand, the “life” of the body was animated and visible, discursively open, and dependent on the routine health-care provided to persons in ongoing social relationships.

3. Developing the vegetative body’s legal relation to death

At about the same time Ms. Schiavo suffered her cardiac arrest, the United States Supreme Court ruled, in a 5-4 decision titled *Cruzan vs. Missouri Department of Health*, that individuals (including vegetative patients) have a constitutional right to refuse medical treatment under the due process clause of the 14th amendment.⁸ Though states may restrict this refusal to competent persons, in the absence of competence, “clear and convincing evidence” may be presented to demonstrate the will of a person to refuse such treatment. The decision capped nearly twenty years of legal, medical and ethical thought on so-called “right to die” jurisprudence, which sought to establish a coherent paradigm to regulate the conduct of individuals or surrogates in death and dying.⁹ I want to stress that in the case of the vegetative patient, these legal cases have solidified the notion that vegetative bodies exist on a threshold between life and death; i.e., that to be vegetative means to occupy a relation to death. In this relation, self-determination and agency have

⁸ *Cruzan v. Director, Mo. Dept. of Health*, 497 US 261 - Supreme Court 1990.

⁹ The penultimate section of this chapter on the “dying and death consensus” articulates more clearly how the relation between law, ethics and medicine has produced an internally coherent paradigm of visibility for the vegetative patient, and how this paradigm adjudicates and regulates the conduct of others in carrying out a “right to die.” Here, the vegetative body is essentially, and only, read as a figure on the threshold of life and death.

been foregrounded and isolated as the most important faculties that facilitate it. In this respect, a whole host of legal technologies -- from living wills to advanced directives -- have developed to enable our own willful decisions about our own death *as* decisions about our non-consent to further medical intervention and care. Medicine and neuroscience have abetted this development, not only by crystallizing a definition of death as brain-death, but also by producing professional practices, charts, and standards of brain injury to centralize consciousness as the animating category of agency and self-determination. Hospitals and hospices, including those where Ms. Schiavo was cared for, formed bioethics committees to regulate end-of-life care proceedings.

In 1997, Michael Schiavo, now his wife's legal guardian, filed a petition in the Pinellas County, Florida probate court to suspend the medical treatment of her vegetative body.¹⁰ The court responded by appointing a guardian *ad litem* to determine Ms. Schiavo's end-of-life wishes. To address Ms. Schiavo as a legal subject, however, it also had to ensure that it was responding to an incompetent person. In both respects, giving an account of Ms. Schiavo's vegetative body was a central concern. For Ms. Schiavo as a *legal* subject could only have a surrogate act on her behalf if she "does not have a reasonable probability of recovering competency." Here, the neurological condition of her brain secured the precondition the court needed to read Ms. Schiavo's body in a second way: as the pretext to developing a narrative of Ms. Schiavo's "decision" to

¹⁰ There is a near complete archive of the Schiavo legal documents here: <http://news.findlaw.com/legalnews/lit/schiavo/> This web site, however, does not have court testimony. Those records may be found at the Pinellas County, Florida, public records web site: <https://pubtitles.co.pinellas.fl.us>.

terminate life-sustaining care. For the court, Ms. Schiavo's heart failure represented merely an event in which she crossed the threshold to incompetence regarding her own medical treatment. The only narrative of life it was interested in recognizing was the one she lived before she crossed this threshold. In short, two bodies were given a narrative in the courtroom to produce Ms. Schiavo the legal subject. First, there was a vegetative body without a functioning brain, which was mobilized to establish incompetence; second, there was the body of a full human being, limited strictly to Ms. Schiavo's life before the cardiac arrest, which was called upon to adjudicate "her own" decisions after her accident. Establishing the latter narrative required, however, the testimony of those who had lived with her vegetative body for nearly ten years. For them, Ms. Schiavo's medicalized body did *not* function as the condition on which to make end of life decisions. Instead, it was her body in "total dependence," and which fit into daily routines of familial love, that signaled a requirement to provide care.

For the better part of the late 1990s, the case of Theresa Schiavo did not unfold under the eyes of a national spotlight, but under the legal framework we commonly refer to as a "right to die" case. Although the guardian *ad litem* for Ms. Schiavo determined, in 1998, that she would want to terminate her life support, the parents of Ms. Schiavo filed an appeal objecting to these findings. This prompted a trial in which a probate court judged testimony by various parties, including the guardian *ad litem*, to authorize and order, or to refuse, the petition by Mr. Schiavo to terminate his wife's life support. From the beginning of litigation until the legal matter was settled in 2005 (at which point the case was a national headliner), the court had as its central and only problem to determine

what Ms. Schiavo's end of life wishes were and, if they were to refuse medical treatment, to order that her feeding to be removed and that she be left to die.

In the paragraphs that follow, I want to consider more closely how the vegetative body is made visible in the courtroom as a legal subject. I want to sort out how the court regulates which narratives of the vegetative body are allowed to produce a legal subject, and which narratives are foreclosed from the court's field of view. Today, even in cases when end-of-life preferences are declared in legal documents, they are usually "under-specified," in the sense that a person does not foresee the exact circumstances under which they would decide on their own death, or at least the conditions under which they would want to refuse further medical care. Nothing seems more important than to reproduce autonomy and self-determination at the "end of life" and, at the same time, nothing seems more important than to locate autonomy when an individual appears on the threshold of life and death. What interests me, then, is how the way the court was required to produce a world through which the vegetative body is not only recognizable as a medical patient who was on the threshold of death, but as a legal subject who could decide on that death as the refusal for medical care.

To consider these matters further, I propose to examine closely the ruling in the Schiavo case in parallel with Ronald Dworkin's *Life's Dominion*. The latter, legal argument about "euthanasia" represents, today, the dominant legal rationale in end-of-life cases. What I want to attend to, in particular, is how the court's reading of the body aimed only at making possible and visible Ms. Schiavo's "intentions" about her own condition, supposing that Ms. Schiavo could, despite her inability to think, make a

decision about her own experience after she had lost the faculties of experience. Additionally, what interests me is how the court's ruling actively foreclosed the possibility that Ms. Schiavo's vegetative body could mean anything *other* than a body on a threshold of life and death to which Ms. Schiavo must have an intention or declaration about refusing lifesaving treatment which the court was bound by law to respect. Thus, it dismissed as irrelevant the majority of the given testimony, which was almost entirely made up of stories in relation to Ms. Schiavo's post-accidental care provided by others. For the court, Ms. Schiavo's post-accidental care was not only seen as "collateral issues," but became evidence of a multitude of "conflicts of interest." More than simply producing a particular kind of legal subject in Ms. Schiavo's vegetative body, then, the court had to actively foreclose a whole set of meanings of this body for others after Ms. Schiavo continued to "live" and be cared for by others.

4. Producing the legal subject of the vegetative body

On February 11, 2000, Judge George W. Greer handed down his ruling authorizing and ordering the discontinuation of artificial life support that had for nearly a decade kept Ms. Schiavo's body alive.¹¹ The "controlling legal authority in this case," Greer stated, followed from the 1990 *Browning* case which concerned "whether or not an incapacitated person possessed the same right of privacy to withhold or withdraw life

¹¹ *In re Guardianship of Schiavo*, 780 So. 2d 176 - Fla: Dist. Court of Appeal, 2nd Dist. 2001.

supporting medical treatment as did a competent person.”¹² There, the petitioner had filed a living will prior to brain injury. The Florida Supreme Court that ruled in *Browning* anticipated petitions before lower courts, however, where living wills or advanced directives had not been signed. Therefore, it accepted a three-pronged test for “surrogate decision-making” and “substituted judgment.” The purpose of this test was to make certain “one does not exercise another’s right of self-determination or fulfill that person’s right of privacy by making a decision which the state, the family or public would prefer.” Since Ms. Schiavo had no living will, Greer stated that the court was required to turn to Ms. Schiavo’s “oral declarations” as reported by others. But when the “only evidence of intent is an oral declaration,” as in this case, “the accuracy and reliability of the declarant’s oral expression of intent may be challenged.” It was the job of the court to sift through testimony to recover “Terri Schiavo’s oral declarations concerning her intention as to what she would want done under the present circumstances” and to determine which declarations were “reliable, ... creditable and [rise] to the level of clear and convincing evidence to this court.”¹³

In *Life’s Dominion*, Ronald Dworkin articulates a legal argument about “decisions ... people must make about death at the other end of life, after life in earnest has ended.”¹⁴ Dworkin’s reasoning makes no essential distinction between the case of a

¹² *In re Guardianship of Browning*, 568 So. 2d 4 - Fla: Supreme Court 1990.

¹³ *In re Guardianship of Schiavo*, 780 So. 2d 176 - Fla: Dist. Court of Appeal, 2nd Dist. 2001. pg. 9.

¹⁴ Dworkin, Ronald. 1993. *Life’s Dominion: An Argument About Abortion, Euthanasia, and Individual Freedom*. New York, NY: Vintage / Anchor Press.

vegetative patient who is not cognitive (yet where “relatives plead for a family member to be allowed to die”) and cases where “rational people ... plead to be allowed to die.”¹⁵ For Dworkin, the vegetative patient is one case in a wide class of conditions where “life in earnest” may have come to an end and where people “must decide about their *own* death.”¹⁶ What interests me here is how Dworkin proposes that we (and the courts) recognize a person’s rights after the “end of life in earnest,” and how we adjudicate a way of bringing that life to a close. Although it is critical that we “think about *who* should make life-or-death decisions,” various “safeguards and formal requirements,” and “whether and how such decisions should be made by others,” for Dworkin it is of “fundamental” importance that we make sure these decisions are the “*right ones*.”

¹⁵ This distinction is critical, as I will point out later, precisely because of the relation between the patient and others. In the case of the vegetative patient, both the livelihood of the patient’s body and, in fact, the reconstruction of their life prior to the accident (even when there are living wills), are entirely dependent on the narratives and actions provided by others; i.e., the patient is, as Michael Schiavo describes his wife’s predicament, a subject of “total care.” But because Dworkin assumes that a framework of autonomy-interests-sanctity is paramount; and because he assumes that each of the three “situations” he describes belong together on the “threshold of life and death,” after life has ended in “earnest,” because, in other words, he finds it imperative to locate the liberal legal subject in a form of experience where we can now decide on our deaths, he is not able to quite recognize the singularity of the vegetative patient as a form of life that requires “total care” by others, and is entirely dependent on the actions and narratives of others. What does it mean, indeed, that we now have the technical means to interact with the life-processes of others’ bodies *ad infinitum*?

¹⁶ In chapter 7 of *Life’s Dominion* titled “Dying and Living,” Dworkin states we must recognize and work through three situations where, given that an individual is living after their life in earnest has ended, they “must decide about their own death.” 1/ when they are conscious and competent, 2/ when they are unconscious, 3/ when they are conscious but incompetent.

“How,” he asks, “should we think about when and how we die” in order to make the right decisions?

Discussing the decision by the Supreme Court in *Cruzan*, Dworkin distinguishes between “three moral issues” the court implicitly balanced as it ruled: autonomy, best-interests, and the sanctity of life. Right away we notice he is invoking three major principles of liberal jurisprudence that must be balanced by the law: the faculty of self-determination, the state’s interest regulating bad and good actions, and the state’s interest in protecting life. And in a rather sterile way, Dworkin asserts -- summarizing what has, in the last 15 years, become the standard legal paradigm in “end of life” cases -- that while courts recognize a “constitutional right to die,” states may “impose severe restrictions on the way in which that right must be exercised,” either to “protect human life for its own sake,” or to safeguard what it deems is in the patient’s best interests.¹⁷

But formal legal frameworks, Dworkin states, are not enough. For we are never speaking, in each individual case, merely of death as a crossing into “oblivion,” but of death as “the end of everything” that one has lived. And if we “think and talk about dying,” he argues, it is because we feel it “important ... that life ends appropriately, that death keeps faith with the way we want to have lived.”¹⁸ When others have reached a point when their life in earnest has ended, we worry about this end as “we might worry

¹⁷ *Life’s Dominion*. Pg. 198.

¹⁸ *Ibid.* Pg. 199.

about the effect of a play's last scene or a poem's last stanza on the entire creative work."¹⁹

Dworkin works hard to integrate this general concern -- that our care about our own death should reflect the life we have lived, and that our death act in concert with the theme of our life -- into the three critical moral principles and legal concepts that adjudicate "end of life" cases. This is particularly important in the case of the vegetative patient. For while we cannot be certain about what an other would "decide," we *can* make judgments "consistent with [their] personality as a whole" by "relying on [our] sense of [their] personality and values." Consider the question of autonomy. For Dworkin, "appeals to the patient's whole personality ... aim to protect a patient's autonomy."²⁰ He similarly applies this reasoning to the question of best interests. Here, he asks that we make a critical distinction between "experiential interests" and "critical interests." The former correspond, essentially, to material interest and the utilitarian concept of pleasure and pain: we are interested in seeking pleasure and avoiding pain. "Critical interests," however, are those that make life "genuinely better to satisfy, interests [we] would be mistaken, and genuinely worse off, if [we] did not recognize them."²¹ Such interests, then, not only integrate with the character or the personality, they also "represent critical judgments rather than just experiential preferences."²² We all

¹⁹ *Ibid.* Pg. 199.

²⁰ *Life's Dominion.* Pg. 192.

²¹ *Ibid.* Pg. 201.

²² *Ibid.* Pg. 201.

have different notions of a good life, and in death, Dworkin argues, there is no reason to believe our normative judgments about that good life should change: “we admire a person who does it his way, even if that is very much not our way;” that is what we call “integrity.”

Dworkin’s legal reasoning and argument is, in many respects, exceptionally admirable, for what it promises is that the conditions for individual freedom must be preserved in the face of death. This freedom corresponds with the fact that we live through stories, that we found our rights and the authority to exercise those rights, at least in part, in the stories we tell out about ourselves, share with others, and have spent a lifetime weaving with others.²³ Though we cannot explain why others would “choose” death, we can be more certain that their decision to do so is part of the story they have made of themselves. Now, in the case of sentient patients who are in terrible pain and suffering, their capacity to weave the decision to die within a narrative of their life seems to me to be an important exercise in freedom. But does such a paradigm make sense in the case of the vegetative body? How, in the case of Ms. Schiavo, can a body that for 7 years has been without consciousness, experience, sense, thought or feeling of any kind, and which is sustained by a unique network of medical care, now face a decision about

²³ Dworkin here also invokes another classical definition of freedom: that a free individual legislates their life for themselves, and that this life, however apparently haphazard, is still governed by conventions. What is interesting in Dworkin’s argumentation -- although he does not mention this explicitly -- is that by integrating the “final chapter” of a life into the whole “course of a life,” he is asking others to make a crucial investment in the conventions a particular subject has made about his or her own life; to recognize those conventions and, indeed, to respect them. *How* this practice of “recognizing” and “respecting” the conventions of others about their own life happens, however, Dworkin does not say.

death which she must choose as though she had the faculty to decide? We must wonder for whom a legitimate legal and authoritative narrative about a person's "end of life" wishes must be woven, and for what actions it is circulated to organize. Indeed, what kind of narratives emerged in the courtroom of the Schiavo case, and what were they called upon to order and regulate? Or, to state it a different way: what form of life was authorized by the court as the legitimate arbiter in a decision to end the life of a body that formerly belonged to a woman but was now merely vegetative? And if the ruling of the court is to disallow or to allow the cessation of "life-sustaining" treatment to a body that cannot feel, think, or decide then what, exactly, is it authorizing to come to an end? At the center of the problem, as Dworkin rightly points out, is a narrative about a particular kind of body. And, it was the function of the court in the Schiavo trial to establish the legitimate legal narrative about this body.

Let us turn to the testimony in the Schiavo case. Eighteen witnesses were called to testify, most of them family and friends, but also included was a neurologist, Ms. Schiavo's guardian ad litem, and a social expert on popular attitudes toward death. The courtroom became the scene for an enormous number of narratives about Ms. Schiavo and, particular, about her vegetative body. We might expect that the majority of testimony described narratives and stories of Ms. Schiavo that, as Dworkin states, represented her critical interests and personality for the court to determine how various "oral declarations" by Ms. Schiavo proffered by the witnesses bear on her end of life wishes. But this was not the case. At the same time, counsel for both parties sought, with each witness, to strengthen or weaken their credibility in order to sway the ruling of the

court about the “ward’s intent.” Here, too, narratives of care for the vegetative body were dominant.

Mr. Schiavo’s testimony, and the way in which he sought to establish his credibility, frequently referred to the medical care for his wife and her needs of total dependence. She “has to be intubated by one person,” he explained, “she wears a diaper which has to be cleaned ... [nurses] have to change the diaper. Clean her. ... They have to do her hair. Her teeth. They have to do total care for Terri.” He described the fundraisers he held in order to seek her “aggressive rehabilitation” at UCSF. At other points, he describes his decisions to allow amputations to stem his wife’s gangrene, massages to prevent permanent muscle contractions, the difficulties of moving her head and transporting her body, and the infections from poor intravenous lines. But this form of care became, for Michael Schiavo, a way of re-ordering his young marriage. He regularly defended his continued love for her by invoking his long stays by her bedside, his return to nursing school as a profession (“to better take care of Terri”), and his long resistance to doctors who told him nothing more that could be done. The lawyers for the Schindlers, on the other hand, tried to paint a picture of infidelity and even medical neglect, accusing him several times of abusing Ms. Schiavo. There was also the matter of the rift with the Schindlers in February of 1993, when Ms. Schiavo’s settlement money came through. Mr. Schiavo stated the rift stemmed from his view that Mr. Schindler was interested in caring for his daughter in order to have access to the money in her estate. He sought to explain that, although he was living with another woman, his love for Ms. Schiavo had not dwindled. He described how the death of his mother in

1997 was the moment when he changed his mind about suspending Ms. Schiavo's end of life treatment. "My mother gave me a gift," he explained, "when she was dying. We stopped her feeding because that is what she wanted... she gave me that gift that it was okay to die." Asked next why he was "asking the Court for permission to remove Terri's feeding tube," he replied it was his "responsibility, because I love her so much, to follow out what she wanted." Mr. Schiavo often invoked his responsibility to care for his wife with her wish to end life support. Care and dependence were the primary vehicles through which he organized his relation to Ms. Schiavo.

The testimony provided by the Schindlers sought to recoup the notion of care through the body of Ms. Schiavo, but one less responsive to medical needs. Instead, they tried to demonstrate that they had worked to re-integrate Ms. Schiavo into family life and support, at the same time, her marriage with Michael. Mrs. Schindler, for example, characterized her visits with Ms. Schiavo this way: "When I enter her room, she is usually laying there looking around. Maybe listening to the radio. I will go over to her and I will say, 'It's mommy.' I hug her and kiss her. She laughs. Sometimes she cries. I comfort her. If she laughs, I just let her laugh. If she cries, I'll try to, you know, comfort her until she stops. Then we talk." This narrative was critical when the lawyers for the Schindlers tried to introduce a video of Ms. Schindler "interacting" with her daughter, a video that did not make its way into evidence because, Judge Greer estimated, five minutes of video could not stand in for the conclusions of "ten years of medical care." All the family members testified that Ms. Schiavo responded more to her mother than anyone else and, when both parties argued over whether or not Ms. Schiavo had any cognitive

faculties remaining, counsel for the Schindlers argued that they “believed that she has some limited [cognitive] ability, especially in the recognition of her mother, and this reaction she has mainly to her mother and hardly anybody else.”

In cross-examinations, George Felos, the lawyer for Mr. Schiavo, sought to undermine the credibility of the Schindlers in two ways. First, by attempting to show that what they stated for their daughter contradicted past actions and statements; for example, he attempted to show that, whereas they now claimed they would “do anything to keep [their] daughter alive,” they had in the past “dismissed with prejudice a suit in which they alleged [Mr. Schiavo] was found to give medical treatment.” Second, Felos portrayed their interests in keeping Ms. Schiavo alive as not only against her stated wishes, but also ghoulish. He often repeated to them on the witness stand that they would want to keep Ms. Schiavo alive even if she needed all her “limbs amputated to save her life.” In another example, Mr. Felos asked Ms. Schiavo’s father if “there comes a point in time where the experience of discomfort or pain on the part of the patient becomes a factor in deciding whether to remove life support,” to which Mr. Schindler had answered, “No.” As he explained later in court testimony, Mr. Felos sought precisely to portray the “motivations of the parties are very relevant to reaching the truth of this matter.”

The Schindlers routinely attempted to portray the Schiavo marriage as “not as solid as one may believe.” In contrast, in large portions of court testimony, the Schindler’s tried to paint a portrait of their family cohesion in which Ms. Schiavo could thrive. When, in 1991, they moved Ms. Schiavo from hospice care to their home, the Schindlers began to sense that Mr. Schiavo was growing more distant. They insisted that

cognitive “improvement” resulted from her experimental care, and that they had patiently cared for her for three years. But the rift over the malpractice trial broke their relation with Mr. Schiavo and, they claimed, with their daughter. Their fight, Mrs. Schindler described, “was over the money,” and specifically the use of that money: “we wanted to take her to the hospital,” Mrs. Schindler claimed, but Mr. Schiavo “would not do anything for her.” While the Schindler’s claimed Mr. Schiavo’s partnership with another woman was evidence that he no longer cared for her, Mr. Schiavo responded that his nursing school program and daily visits to Ms. Schiavo constituted evidence that he was “in love with two women,” and that he was still attached to his wife and interested in her care.

At least two types of narratives emerged in the courtroom, each of which attempted to figure Ms. Schiavo’s body in relation to death as a particular kind of subject. To both the Schiavo’s and Schindlers, this body was a post-accident subject of physical care, one that was refigured in particular kinds of disrupted relationships, be they marital or familial. Here, however, there was a division: whereas Mr. Schiavo sought to locate his wife’s death within a continuity of care that had re-ordered their marriage, the Schindlers sought to distance this body from death as one that required indefinite care from their family. The Schindlers argued over and over that Ms. Schiavo was cognitive, aware, and responsive to them; that she was full of emotion, and that she was being needlessly stripped of a meaningful life. In both cases, these narratives turned on meanings of the vegetative body as an affliction to a social bond, and the body as a surface on which this bond can be both reformed, maintained or terminated. It was within these narratives that

the “credibility” of the witnesses testifying to Ms. Schiavo’s end of life wishes were situated.

The court refused to recognize the legitimacy of these stories. It refused as largely “self serving” the bulk of testimony by the Schindlers. Mr. Schiavo’s description of the “gift” given to him by his mother near her death, in which he found the courage to let a “loved one go” because it was “her wishes,” was also dismissed by the court. Near the end of the trial, Judge Greer comments that these and other stories painted by both parties have “nothing to do with anything I’ll need to decide in this trial. It is totally collateral. It is totally peripheral, hanging out there.” Greer quickly established that the infighting between both parties over the care of Ms. Schiavo discredited them both, largely due to the financial stakes at play in the care and guardianship of Ms. Schiavo. “Money,” he wrote, “overshadows the entire case” and creates “potential conflicts of interest for both sides.”

In a case where the end of a human being’s life was a stake, the court was interested only in recognizing in Ms. Schiavo’s vegetative body a subject stripped of these social relations of care and framed, instead, within a medical and juridical register. Medical testimony by neurologists were central in establishing the permanence of Ms. Schiavo’s condition and the incompetence of someone without consciousness. Both parties, the court repeated, agreed in filed depositions that Ms. Schiavo was vegetative. This diagnostic certainty, from the court’s point of view, allowed it to separate the care for the body (which could be maintained and rehabilitated, and which continued to operate in concrete social relations) from the state of her brain (which could not). And

though the court noted that Mr. Schiavo was indeed “the most regular visitor to his wife,” and that allegations of her abuse at his hands were baseless, it reiterated that these were simply sidebars having “little or nothing to do with the decision the court must render.” If anything, the care provided by Mr. Schiavo over seven years, which (in the eyes of the court) produced the main source of argument between the parties, was essentially suffused by “conflicts of interest.” Indeed, the *more* a witness was involved with the care of Ms. Schiavo’s body and foregrounded the meaningfulness of the care of this body to them as so many different aspects of social bonds and relations, the *less* their testimony of her end of life wishes was found to be credible.

From the court’s point of view, Ms. Schiavo hardly ever appeared in court testimony as the autonomous, self-determining subject that it was searching for. The relational meanings of the vegetative body of Ms. Schiavo failed to instantiate an autonomous subject, except when medical and social experts were called upon to provide “objective” information about her condition. The meaning of Ms. Schiavo’s vegetative body provided by most testimony made her into a subject not only of total dependence, but a partner in mutual relations whose needs of dependence were met through a complicated division of labor. These social relations were characterized, witnesses described, by forms of giving (clothing Ms. Schiavo with contemporary fashions, providing her comfort, organizing drives to finance her care, etc.), reciprocal exchange (glances, conversation, gestures, squeezes, and moans that, her family claimed, were responses to their prompting), sacrifice and devotion, love and affection and, above all, as a subject to whom one had “responsibility.” While the court sought to instantiate Ms.

Schiavo's autonomy as a response to a her physical condition, the narratives of testimony sought to give meaning to how those social relations were reproduced through a physical condition.

Ms. Schiavo's personal "end of life" wishes were the *only* narrative through which the court testimony was read and, more to the point, the only one through which Ms. Schiavo was recognized as a person. If the "form of life" embodied by Ms. Schiavo was a person whose end of life care could be adjudged by the court, then this person could only be co-extensive with her critical interests. These were no longer the "critical interests" of a person whose body continued to exist for others as a social being. The court effectively stripped from the meaning of Ms. Schiavo's body the ways in which it has continued to live as an object and subject of social relations. Yet, what Greer's ruling relied upon was that Ms. Schiavo could, in any case, still have a opinion about the meaningfulness of this "form of life." For Greer, finding a ruling required effectively foreclosing any personal meaningful existence Theresa Schiavo might have about her life *after* her accident *except* for the fact that it now occupied a position on the threshold of life and death.

In his ruling, Greer stated that he need not rely on the testimony of either Mr. Schiavo or the Schindlers to arrive at a decision to authorize the petition. He could rely, instead, on two stories offered by two witnesses following the same incident. In the mid-1980s, the life-support for Mr. Schiavo's grandmother was suspended and she was left to die. Mr. Schiavo's brother and sister-in-law each testified that, at a family dinner following the funeral, Ms. Schiavo stated "if I ever go like that just let me go. Don't leave

me there. I don't want to be kept alive on a machine." The court ruled that those statements "are Terri's Schiavo's oral declaration concerning her intention as to what she would want done under the present circumstances and the testimony regarding such oral declarations is reliable, is creditable and rises to the level of clear and convincing evidence." The ruling also reinforced these hearsay testimonies with the advice of a public health expert on general attitudes towards death. "The expressions made by Terri Schiavo," ruled Greer, "are those type of expressions made in those types of situations as would be expected by people in this country in that age group at that time," referring, presumably, to Ms. Schiavo's generation and its general opinions about death in the early 1990s. They "reflect underlying values of independence, quality of life, [and] not [being] a burden."

5. Public contestations over visibility of Ms. Schiavo's body

When the Schindlers' legal options dwindled in 2003, they released to local media outlets a series of videotapes of Ms. Schiavo taken in her Florida hospice. They immediately caused a stir, if only because Ms. Schiavo's visible animation confused assertions by the courts and its medical reports that she was unconscious, unaware, and nearly brain dead. The Schindlers claimed that the videos were "evidence" their daughter was alive and that the probate court's order to suspend treatment amounted to a command to "kill" a healthy woman. The many various videos ("she can be seen smiling and looking up at her mother in what might be described as wonderment," reported one paper) and photographs of Ms. Schiavo were proposed as scenes of "interaction,"

typically between Ms. Schiavo and her mother, in which dialogue, touching, and gestures gave the strong appearance that Ms. Schiavo was not only alive and moving, but emotionally available, aware, and actively responding.²⁴ The over-arching narrative that gave the story its punch and recurring plot line, however, was the bitter, acrimonious relationship between Ms. Schiavo's parents and her husband, as well as the public's increasing uncertainty regarding Ms. Schiavo's status as a person on the "cusp" of inevitable death. Compounding the uncertainties about Ms. Schiavo's medical status provoked by her visibility were also, then, the people around her who were fighting over her care and, as it were, fighting over the end of her life. The two problems were mutually intertwined, invoked together as one: who was the person whose body we were looking at, and how did her parents, husband, religious figures, scattered legislators or experts represent those who were interested in her care, well-being, and of course the decisions about her life and death?

These uncertainties were amplified into anxieties by religious rights groups, in particular *Operation Rescue* (renamed to *Operation Witness* during the Schiavo case) and its founder Randall Terry, who took rhetorical control of Ms. Schiavo's public visibility. A large number of "culture of life" advocates (anti-abortion, pro-life and Christian right groups) joined as well. They distributed photos, videos, and documents of Ms. Schiavo more widely, arguing Ms. Schiavo was alive; that she was being murdered by physicians and, of course, by Mr. Schiavo. Conservatives galvanized support in order to "fight" to

²⁴ Heffernan, Virginia. 2005. "The Schiavo Case: The Videotape -- Critic's Notebook; Provocative Snapshots of a Many-Layered Issue." *The New York Times*, March 21.

“save” Ms. Schiavo’s life. In the loud, visual cacophony of this period, what exactly the case of Ms. Schiavo meant, who she was, and what ought to be done about it, was transformed into an open question. The appeals by the Schindlers, as well as actions by the Florida legislature and governor to slow and even to halt the case in probate court, allowed for a number of cultural narratives and discourses to unhinge the case of Ms. Schiavo from its strictly legal and medical discursive moorings and offer up a new set of meanings and interpretations.

What turned out to be, by 2005, the final months of Ms. Schiavo’s legal life and medical care were intensely narrated by edge-of-your-seat headlines invoked in the idiom of “culture wars,” an idiom that had become the dominant representational rubric through which social and religious conservatives rhetorically advanced their political agenda: “Schiavo in her ‘Last Hours,’ Father Says Amid Appeals;” “Casting Angry Eye on Courts, Conservatives Prime for Bench-Clearing Brawl in Congress;” “Last Rites, Cremation Part of Schiavo Battle.”²⁵ For almost two decades now, Americans have become well-versed in these discursive repertoires, and audiences tuned in nightly to track possible new legal or medical developments in a saga at the center of which the life of a woman was claimed to “hang in the balance.” But what this “life” was, what “saving” it implied, and who the parties of this “war” were, was initially very unclear. For the public audience, a number of important facts were missing, a diversity of voices emerged

²⁵ Lyman, Rick. 2005. “Schiavo in Her ‘Last Hours,’ Father Says Amid Appeals.” *The New York Times*, March 26. Hulse, Carl and David D. Kirkpatrick. 2005. “Casting Angry Eye on Courts, Conservatives Prime for Bench-Clearing Brawl in Congress.” *The New York Times*, March 23. Levesque, William R. 2005. “Last rites, Cremation Part of Schiavo Battle.” *The St-Petersburg Times*, March 1.

and competed for attention, the stakes of action and intervention were still being assessed, and political alliances were being drawn. Press conferences held by Michael Schiavo attempted to paint a picture of marital fidelity to a partner's wishes, while those held by Ms. Schiavo's parents offered a picture of betrayal and adultery trumping the bottomless love for a "disabled" wife. At the same time, lawyers, physicians and neurologists were summoned in order to make sense of Ms. Schiavo's case. To be sure, medicine and law remained critical components of public debate (and the normative positions of both were often repeated), but on the public stage the meaning of a right to die and indefinite medical care could be re-framed through narratives of the vegetative body and offered up again for consideration. The result was a conceptual confusion about a particular kind of body; it was, indeed, a competition over how to establish a point of view, a way of seeing, for a body that had produced a crisis of visibility: what were public audiences looking at, what did it mean, and how did we know?

Consider an article from March 20, 2005, "For Parents, the Unthinkability of Letting Go," where we are told that the spontaneous animation of the vegetative patient is "all so familiar" to their "loved ones" that the latter "find it impossible" to accept that their daughter or son is "incapable of thought or emotion."²⁶ This "cruelly misleading" state of affairs evokes "a lifetime of intimate familiarity with a person, unresolved feelings of guilt, [and] psychological projections of needs" against what is, for neuroscientists and physicians, only a case of medical futility and lack of mental activity

²⁶ Carey, Benedict. 2005. "For Parents, the Unthinkability of Letting Go." *The New York Times*, March 20, 3B.

in fMRI and EEGs. The “futility” of medical care contrasts with the impossibility for families to “let go,” and represents a threat to family order. “Mothers are used to doing a lot of care-taking,” reports the article, quoting a clinical psychologist: “it comes so natural.” “Letting go” implies that someone is “hanging on,” and as a decision on ending life, it conjures the images not only of familial affection, but gestures of atonement. For within the circle of family intimacy, the article continued there are “almost always” “lingering regrets associated with the person,” there can be “genuine comfort in sustaining even so one-sided a relationship.”

The narrative of a family interrupted by the vegetative body, thrown back upon itself into a state of crisis, was echoed in a different vein, one that insisted “the real moral issue” of the vegetative body is how it produces “thorny disagreements that occur in the settings of real families.”²⁷ Again, the specter of decision making and the conduct of individuals who care for Ms. Schiavo is invoked in a particular kind of narrative. Here, the acrimony between the Schindlers and Mr. Schiavo over removing Ms. Schiavo’s feeding tube pitted love in one’s “natural family” against the love in a marriage. “There’s a sort of undercurrent of mistrust and suspicion underlying the state of marriage these days,” reacted one media studies professor, “the idea that a spouse may leave you or try to murder you or having [sic] a secret life with someone else.” Accusations of abuse, neglect, and injury by the Schindlers were a recurring theme in the media coverage of Ms. Schiavo. Ms. Schiavo’s helplessness and her body’s tendency to bruise easily were

²⁷ Dewan, Shaila K. 2005. “Love and Death; It May Be A Family Matter, But Just Try to Define Family.” *The New York Times*, October 26.

regular fodder for religious conservatives who claimed that Mr. Schiavo was attempting to “move on” by seeking to suspend the care for his wife. At the same time, others asserted that the actions by the Florida legislature and Governor Jeb Bush to strip Mr. Schiavo of his rights to decide on the life and care of his wife indicated that “the marital intimacy that is normally inviolable even by parents or children ... has been breached.”²⁸

Another major idiom of the period called for us to recognize Ms. Schiavo as a disabled person. But we should attend carefully to the “disability” critique, for it functioned as a prism to render visible not only Ms. Schiavo as a person, but also as a judgment of the actions and assumptions of others vis-a-vis a certain “class” of citizens. In part, the involvement of disability rights groups in the Schiavo case grew from federal legislation passed in March 2005 specifically aimed at ordering a judicial review of the probate court decision in the Schiavo case. Although the language of the law did not mention Ms. Schiavo directly, it ordered an investigation into the “status and legal rights of incapacitated individuals who are incapable of making decisions concerning the provision, withholding, or withdrawal of foods, fluids, or medical care.” Disability groups argued that social and political institutions posed a threat to disabled individuals in the conduct of their lives. Ms. Schiavo, they argued, was one disabled person among others in society threatened by the belief that “people would prefer death to severe disability.”²⁹ Asserting that “state courts tend to devalue people with disabilities,” these

²⁸ Dewan, Shaila K. 2005. “Love and Death; It May Be A Family Matter, But Just Try to Define Family.” *The New York Times*, October 26.

²⁹ Easton, Nina J. 2005. “Rights groups for disabled join in fight.” *The Boston Globe*, March 23, A1.

groups insisted on legal protections that would ensure consent and rights for disabled individuals who have lost the capacity to communicate. Ms. Schiavo was a figure on the cusp of state-sanctioned “non-voluntary euthanasia,” the victim of a “‘right to die’ movement [which] believes she is too disabled to live and therefore better off dead.”³⁰

Perhaps most provocatively, disability activists, or “not yet dead crips,”³¹ portrayed Ms. Schiavo and the disabled as “canaries in the coal mine” of the American health system. On its face, it appeared this criticism sought to make no distinction between Ms. Schiavo’s incapacities and those of the disabled writ large: “Can she think? Hear? Communicate? These questions apply to thousands of people with disabilities.” Popular disability web sites were replete with stories of individuals declaring their “tube pride” (“We Love Our Tubes!” declared one article), by persons who, after a debilitating disease, sought not to end their life and, later, were grateful that they did not do so. Pointed editorials asked the question: since when is “artificial life” and “life support” a “medical treatment?” To the neurologists who argued that Ms. Schiavo could not recover from her brain injury, disability activists *agreed*, but qualified this response by saying that

³⁰ Joint Statement by an Alliance of National Disability Organizations. 2005. “Issues Surrounding Terri Schindler-Schiavo are Disability Rights Issues, Say National Disability Organizations.” *Ragged Edge Magazine*.

³¹ The expression “not dead yet crips” is a stylized self-representation by the group *Not Dead Yet: The Resistance*, a national organization dedicated to eliminating “legalized medical killing,” which they view as a “deadly double standard for people with severe disabilities, including both conditions that are labeled terminal and those that are not.” See <http://www.notdeadyet.org>. The term “crips,” though not widely accepted, is another self-representation by disability rights activists who seek to call attention to discursive assumptions generally made when referring to “disabled subjects” as lame, disabled, or crippled.

“the phrase ‘will not recover’ was used ... as a kind of shorthand to justify the withdrawal of life-sustaining measures.” As Mary Johnson reiterated in *Ragged Edge Magazine*, the central issue for the disabled has nothing to do with Ms. Schiavo’s physical or mental incapacities, but with “social bigotry, ... the ‘better dead than disabled’” mentality.³² This mentality, she claimed, is invisible and orders a set of assumptions about the disabled across social and public institutions: there is a “tie-in between emerging public policies that in the guise of cost containment and choice in dying both promote futile care policies and define feeding tubes as ‘medical care,’ and the look-the-other-way stances of progressives and right to lifers alike as Medicaid is cut, healthcare services are cut and anti-access judges are appointed to the federal bench.”

Disability rights groups, in short, reacted against what nearly everybody took for granted: Ms. Schiavo was on a threshold of life and death. The fact that she had moved through litigation to end her life, initiated by a guardian, based on relatively modest hearsay testimony, confirmed for many “crip activists” that assumptions of the disabled as “closer to death” were widespread. For here, it was repeated, disability rights groups were working from a position of representational and symbolic deficit, a vacuum of cultural frames through which the “abled” could not recognize the “disabled” within a relation of lively flourishing. Whereas, for example, the feeding tube represented for many the threshold in the “life or death” of Ms. Schiavo,” disability activists argued that “the feeding tube represents -- stands for -- all sorts of equipment without which severely

³² Johnson, Mary. 2005. “After Terri Schiavo: Why the disability rights movement spoke out, why some of us worried, and where do we go from here?” *Ragged Edge Magazine*, April 2.

disabled people would not be alive.”³³ In this regard, crip activists sought to reclaim from the Schiavo case what had been “medicalized” -- feeding, hydration, health services -- into the everyday embodied, living practices of hundreds of thousands of Americans. Rather than view, for example, Ms. Schiavo’s medical care as “expenditure, effort, and expendability,” not dead yet crips sought, unsuccessfully, to re-frame “artificial life support” and services as part of the conditions that support a flourishing life. Anything less amounted to a failure of recognition, a void in the grammar through which the disabled could occupy positions of agential individuals and be seen as such by others. In short, Ms. Schiavo “represents something to the public that they believe they also represent,” an example of “why people think the disabled person is better off dead.”³⁴ Here, cultural frames of precariousness and personal or social futility visually blend with the non-normative, disabled bodies. “Non-disabled people,” it was argued, “underestimate the self-reported well-being of people with disabilities and serious illnesses.” Perhaps most important was the implicit critique of the medicalized, policy-heavy perspective of health care services that marginalized the representational frameworks through which the disabled, and the devices that sustain their life, could appear as flourishing and living individuals.

³³ For intelligent commentary on the relation between the feeding tube, hunger, and mortality, see Anderson, Patrick. 2005. “On Feeding Tubes.” *The Drama Review* 49 (3): 5-9.

³⁴ Johnson, Mary. 2005. “After Terri Schiavo: Why the disability rights movement spoke out, why some of us worried, and where do we go from here?” *Ragged Edge Magazine*, April 2.

In contrast to disability activists, who sought to distinguish the case of Ms. Schiavo, and in particular the care and dependence that was necessary for her to “live,” from the threshold of death, Christian conservatives and religious right groups sought precisely to intensify the relation to “death.” As I have already suggested, the visual panoply of tormented bodies strewn on the grounds of Florida hospice conjured images of murder, crucifixion, martyrdom, and violence. It was possible to organize the notion of “sanctity of life” with these images, a narrative that belonged to, and was expressed by, the religious moralism of those who declared Ms. Schiavo was living. With respect to her dependence on total care, they sought to represent Ms. Schiavo as a young Catholic woman’s helplessness, whose feeding tube needed to be understood as a measure of Christian compassion. If there was any positive content to the phrase “sanctity of life” or, in another expression of the period, that we must “err on the side of life,” it was that economic considerations should be eliminated from the calculus of care. As long as Ms. Schiavo remained alive for her parents, and in particular her mother, she was alive, period.

Anti-abortion demonstrators, fresh off a round of protests against scientific research using stems cells culled from human embryos, redirected their “sanctity of life” arguments to the Schiavo case. They used their bodies as avatars, shackling their own bodies to gurneys, or symbolically muting their “voices” with red tape on which the word “life” was printed in bold, black ink. This, as in so many other rhetorical tactics, not only sought to condemn the actions of Mr. Schiavo, Judge Greer, George Felos, liberal legislators and much of Ms. Schiavo’s hospice care staff, but to demonize them. What

“sanctity of life” meant, or what it looked like, or how it could be defined, was not the only issue. The phrase was deployed to police the conduct of others, expose a crime, give voice to the helpless, and to prohibit and punish. As one reporter noted, the protesters outside of Ms. Schiavo’s hospice and conservatives legislators on television had “constant targets:” judges, legislators, and caretakers. In their path they held up signs declaring “Hospice or Auschwitz?” “Murder is Legal in America” “You Wouldn’t Let a Dog Die of Thirst” and “Next They Come For You: American = Nazis.”³⁵

In contradistinction to the right’s “sanctity of life” barrage, however, Schiavo’s body also became a site where meanings of “death with dignity” were invoked. We have here a different organization of the vegetative body and the conduct of others at the end of life. Consider an article in *Time Magazine* dated March 28, 2005 titled “Choosing Their Time,” an article that opens dramatically with the phrase: “Steve Mason is ready to die.”³⁶ “He chose to die on a sunday morning ... Says Gloria [his widow]: ‘He told us, ‘If I had any more love in this room, I’d have to keep it in Fort Knox.’ Then he drank the Nembutal, and in five minutes, he was gone.’” A resident of Oregon -- “a new frontier in [the] right to die movement” -- Mason described that he didn’t “want his daughters to see me wither away to 80 lb.,” invoking both fears and shame not only of a painful, emaciating process of bodily decay, but of having others witness this decay without being able to reverse the process or soothe the agony. This *Time* article encapsulates a specific

³⁵ Lyman, Rick. 2005. “Protesters With Hearts on Sleeves and Anger on Signs.” *The New York Times*, March 28.

³⁶ Roosevelt, Margot. 2005. “Choosing Their Time.” *Time*, March 28.

discursive niche of the “right to die movement,” not simply that of physician-assisted “suicide,” but more precisely of restoring individual control over one’s death by demanding the help and presence of others. An image of control, planning, preparedness, and autonomy are central to representations of death with dignity that others can recognize: “He chose to die on a Sunday morning,” reports the article on the case of Dick Farris, who suffered from pancreatic cancer, “surrounded by his wife’s three daughters and 9-year old granddaughter.” The Schiavo case, reported another article, “got people thinking seriously about what it means to be alive or dead, and how they might prepare for their own death,” suggesting that because “aid in dying happens in every state,” it was time to “bring it out of the closet, impose legal safeguards and careful oversight.”³⁷ Not only must we prepare for our own death, we must also become “patients [who] become their own advocates for a better death.” In part, the management of pain at the end of life becomes an opportunity to mend old wounds, to “say what matters most, renew spirituality, complete relationships ... [the end of life] is not without some value.” Here, the figure of the vegetative or diseased body, and in particular the way it occupies a position on the threshold between life and death, is seen as dignified not only because one can leave on one’s “own terms,” but whose own terms reproduce an intimate setting of family bonds.³⁸

³⁷ Eisenberg, Daniel. 2005. “Lessons of the Schiavo Battle.” *Time*, March 28.

³⁸ Chu, Jeff. 2005. “End-of-life Decisions: What if it Happens in Your Family?” *Time*, March 27.

I want to consider a final prism of visibility and conduct through which Ms. Schiavo's body was recognized: the activity of United States conservative legislators. When Ms. Schiavo's body was catapulted into the national spotlight -- a period when George W. Bush's re-election was inaugurated by his declaration that he had newfound "political capital" to spend -- legislators were locked in debate over federal funding for stem cell research. Stem cells, like the brain, represented a particularly new discourse of human life: that of endless intervention, utility, fabrication, and manufacture, if science could find a way to harness the *pluripotentiality* of undifferentiated nerve cells (stem cells). But this was also a period when, by and large, the conservative right movement had reached its peak and when "culture of life" issues were, as I have already suggested, not only a dominant rhetorical framework but also a source of political bullying and demonizing. Indeed, to "err on the side of life" was not so much moral principle as it was a rhetorical tactic that aimed to identify those who would be "reckless with life." For liberals, nothing was more paradoxical than a conservative movement so obsessed with "protecting life" domestically but willing to slaughter muslim civilians internationally in the name of security.

Let us consider, for example, a speech by Tom DeLay, speaker of the House of Representatives, given on March 18, 2005 to the Family Research Council in Washington D.C.³⁹ For some time DeLay had been under congressional investigation for ethics breaches. *Time* reported that the speaker sought to "draw parallels between Schiavo's

³⁹ This speech was largely reproduced in *Time Magazine* on March 23, 2005. Tumulty, Karen. 2005. "Tom DeLay: 'It Is More Than Just Terri Schiavo.'" *Time*, March 23.

situation and his own.” “Whether it be euthanasia or abortion,” DeLay began, the critical issue in the Schiavo case is a “fight for life,” a fight for what “God has brought to us” in the body of Theresa Schiavo. This “fight for life” was, he argued, an “attack against the conservative movement, against me and many others.” The death of this body signified, in short, a small death for a social movement. This heady, belligerent tone, which painted Ms. Schiavo variably as a martyr, augur, and call to arms for social and religious conservatives, reached a crescendo with the passage of a federal bill designed to overturn the probate court’s decision in the Schiavo case by enforcing the re-insertion of her feeding tube. These and other measures, along with the visual rhetoric I have already described, functioned to prop up an image of a vulnerable body in order to produce the air of moral pietism and principled rectitude. The imperative was precisely to produce fissure, an “us against them,” “with us or against us” mentality, one that sought to browbeat liberals as, in the words of David Brooks, lacking in “moral force” and interested only in cold, calculating “process.”⁴⁰ Here, as in many other examples, conservatives channeled the visibility of Ms. Schiavo’s “precarious life” into a narrative of threat, danger, insecurity, and even terror (DeLay called the Schiavo case “medical terrorism.”)

In public opinion polls, however, Americans were overwhelmingly dismayed with the actions of conservative legislators. Nearly three-fourths of Americans, including most registered republicans, thought that Ms. Schiavo’s feeding tube should be removed. DeLay himself, along with Bill Frist, the Senate Majority Leader who had famously

⁴⁰ Brooks, David. 2005. “Morality and Reality.” *The New York Times*, March 26.

“diagnosed” Ms. Schiavo as non-vegetative from his Senate office after watching a video of Ms. Schiavo, quickly receded from public view after their legislative efforts had been defeated. Indeed, if there developed any enduring *political meaning* to Ms. Schiavo and her body, it was that conservatives had overplayed their hand. Joan Didion, writing in the *New York Review of Books*, pointedly ends her article on Ms. Schiavo by emphasizing the way in which Ms. Schiavo’s political meaning was intertwined with conservative fervor. She quotes John Fund of *The Wall Street Journal* after he is asked to assess “the political fallout:” ““We’re twenty months to the next election,” John Fund said, “so I think the political impact will be limited.”⁴¹

What I have been suggesting is that as the story of Ms. Schiavo grew in national media, her vegetative *body* entered a kind of free zone of cultural and social signification. In this free zone of signification, the meaning of the vegetative body as a figure on the threshold between life and death was, so to speak, up for grabs. A whole series of cultural discourses about the death of bodies at the end of life were conjured across the surface of Ms. Schiavo’s vegetative body, her face, and her care, in order to make it visible and intelligible to a public audience. But I have also argued that “seeing” Ms. Schiavo through these discursive frameworks required placing the body in a “scene;” it required seeing those others who were taking care of her, acting upon her body, with whom her body occupied relations of dependence.⁴² Or, in the case of the political

⁴¹ Didion, Joan. 2005. “The Case of Theresa Schiavo.” *The New York Review of Books*, June 9.

⁴² Walker, Janet. 2006. “The videographic persistence of Terri Schiavo.” *Jump Cut* 48.

maneuvering by conservative legislators, the body was as metaphor for a larger social body and a larger social movement. I have tried to emphasize, in other words, that Ms. Schiavo's body was a particular "form of life," a space in which actions as interactions could be drawn and made intelligible. Here, Ms. Schiavo's body was not only read on the threshold of life and death, but this threshold was also a space in which the conduct of others was read, policed, legitimated, punished, prohibited, or that belonged to narratives of family intimacy, marital love, grief and tragedy, dignity and "goodbyes." At every turn, the organization and meaning of this conduct tried to produce a "there" in the body of Ms. Schiavo.

6. Re-normalizing the visibility and meaning of the vegetative body

In the months that followed Ms. Schiavo's legal and medical death, many public intellectuals and professional scholars asked why the Schiavo case had generated so much attention. There began to develop, however latent, the sense that the nature of the phenomena in question -- i.e., what we were being called upon to see, hear, and recognize in Ms. Schiavo's vegetative body -- was in a way pertinent to many Americans. But how, and why, and what did it mean? Was it because the Schiavo case represented a existential crisis of mortality that we are each, presumably, subject to? Was it the Florida legislature's interventions into the Schiavo case, which largely amounted to a menacing breach of due process, or a conflict in the constitutional separation of powers? Perhaps, as the business and financial desk of *The New York Times* proffered, the wider implications of the case should be understood in context of policy health metrics, as one

public health issue among many where the “cost of saving an additional life year” varies with policy attempts to “reduce the risk of premature death.”⁴³ Or, perhaps, as one doctor suggested by invoking a core principle of bioethics, the lesson of the Schiavo case and the vegetative body was to re-affirm that “autonomy and self-determination ... [trumps] the infinite value of an individual life.”⁴⁴ Joan Didion, writing in the *New York Review of Books* two months after Ms. Schiavo’s legal death, concluded thusly:

The question began with the different ways in which we define a life worth living, but it did not stop there. The question had ultimately to do with whether or not there could be occasions when the broad economic and ethical interests of the society at large should outweigh any individual claim to either the most advanced medical attention ... or indefinite care.⁴⁵

Although this paragraph is suggestive, Didion does not offer an interpretation of what is meant by social or ethical “interests,” the meaning of “advanced medical attention” (referencing the brain) or “indefinite care” (referencing the body). Perhaps it is the *cost* of keeping vegetative bodies -- where here vegetative body represents an infinitude of medical administration -- which is against “broader” social and ethical interests, since those largely come from private or public health insurance programs such as Medicaid. Perhaps it is the crisis in political action itself, the toxic fever of

⁴³ Krueger, Alan B. 2005. “Economic Scene: Public health measures always involve trade-offs; when considering which ones to pursue, it helps to think of maximizing ‘life years.’” *The New York Times*, March 31.

⁴⁴ Stolberg, Sheryl Gay. 2005. “Schiavo’s Case May Reshape American Law.” *The New York Times*, April 1.

⁴⁵ Didion, Joan. 2005. “The Case of Theresa Schiavo.” *The New York Review of Books*, June 9.

conservative piety inflicted upon legislating, that Didion is referring to. Whatever it is, Didion intensifies the need to explore these categories more concretely when she writes that this problem in the Schiavo case embodies something “virtually unthinkable but increasingly urgent.”⁴⁶ What, indeed, is this the figure to which Didion is pointing, this central problem at the heart of the Schiavo case? What is the tension and contradiction, the unthinkable question that is, at the same time, increasingly urgent in contemporary society?

In the months that followed the Schiavo case, there were a number of opportunities to think these questions through. What unfolded in popular media, the social sciences, law reviews, and ethics and medical journals, however, was the view that what we were dealing with in the Schiavo case was “merely” a problem of, as was repeated often, “how we die.” The anxiety over “how we die” was in turn reduced to a problem of control over our own death. To be sure, an enormous amount of “critical” attention was directed at the diverse institutions that not only made Ms. Schiavo’s case possible, but were central in producing the vegetative body as such: the clinic, courts, neuroscience, etc. But the main goal of this reflection was precisely to re-normalize, re-naturalize, and solidify the authority of these institutions as those which should respond to a phenomena that self-evidently belongs to the domain of dying and death. Thus, the 15-year period in which Ms. Schiavo, her body, and damaged brain circulated across an archipelago of medical and legal institutions became the subject of scholarly research, clinical re-evaluation, and even legislative reform. “Lessons” were drawn from the case

⁴⁶ *Ibid.*

of Ms. Schiavo, particularly of the condition of the vegetative body as a figure on the threshold between life and death.

It was here, for example, that neuroscientists re-asserted Ms. Schiavo could not experience pain; that bioethicists argued that relations of medical dependence (biology) were not co-equal with social dependence (biography); where bioethicists and also theologians argued she required “extraordinary” as opposed to “ordinary” care, and that the former allowed for euthanasia; that “consciousness” and “awareness” were required for a person to be medically alive and not brain-dead, and that Ms. Schiavo did not have the capacity for either despite not being brain-dead. But more than this, claims by bioethicists, legal scholars and neuroscientists during this period targeted each individual in relation to their self and to others. During and after the months of the Schiavo case, a number of institutions were called upon to articulate why this particular kind of body and subject addressed itself to all individuals, to the experience of end-of-life care, and a new technical threshold to death. They did so by, again, appealing to a certain repertoire of discursive frames through which the vegetative body appeared -- through the brain, through the law, through bioethical principles -- as a body on a technical threshold. As the case of Ms. Schiavo extended from days and weeks into months, the public was invited to recognize a particular order and organization of death in contemporary American society, and to constitute themselves as particular kinds of ethical subjects in relation to the experience of their own death or the experience of the death of others.

Consider, for example, an article published in the *Journal of the American Medical Association* a few months after Schiavo's death.⁴⁷ Whereas for "30 years," the author explains, there existed a legal, medical, and ethical "consensus on matters death and dying," the "political and ideological divisiveness in Terri Schiavo's case [clouded] thinking about the dying process." This even was an opportunity for this author to educate the public in matters of "death and dying" by addressing what many in the legal, medical, and bioethical community stated were "several aspects of the case" about which "the public expressed concern." These sentiments were widely shared in the literature. Joseph Fins, a well-known bioethicist in end of life care, argued that the Schiavo case highlighted the "fragile consensus of end-of-life care."⁴⁸ "The legal status of patient autonomy," concluded others in an article for *Palliative and Supportive Care*, "is more tenuous than the assumed clinical ethical consensus suggests."⁴⁹ "Work needs to be done," they argued, invoking one of the principle and central concepts of this discourse, "to secure and defend rights that have been assumed for nearly a generation." What I want to try to recapture here is the tapestry of this consensus, where the crisis of the

⁴⁷ Gostin, Lawrence O. 2005. "Ethics, the Constitution and the Dying Process: The case of Theresa Marie Schiavo." *The Journal of the American Medical Association* 293 (19): 2403–2407.

⁴⁸ Fins, Joseph J. 2006. "Affirming the right to care, preserving the right to die: Disorders of consciousness and neuroethics after Schiavo." *Palliative and Supportive Care* 4 (2): 169–178.

⁴⁹ Lazzarini, Zita, Stephen Arons, and Alice Wisniewski. 2006. "Legal and policy lessons from the Schiavo case: Is our right to choose the medical care we want seriously at risk?" *Palliative and Supportive Care* 4 (2): 145–153.

Schiavo case, and the vegetative body, become a venue in which to produce and circulate an ethical, legal, and medical consensus about “death and dying” *per se*.

The “death and dying” consensus requires, at its core, an articulation of the principle of liberty and autonomy. The crisis in the Schiavo case, argued one, represented a crisis of “the autonomy principle in health care.” This concern dovetailed neatly with arguments by legal scholars that the vehicle for autonomy in end of life care was the right to refuse medical treatment. It was also a direct rebuttal to the legislative actions by US and Florida Congresses. Many law journals sought to remind readers of the legal precedent that either set the path for, or explicitly recognized, a right for individuals to control their end of life care. “Every human being of adult years and sound mind has a right to determine what shall be done with his own body,” wrote the majority in *Schloendorff v. The Society of the New York Hospital*.⁵⁰ “To define one’s own concept of existence,” argued the ruling in *Planned Parenthood vs. Casey*, was central to defining autonomy in medical contexts of end of life.⁵¹ “It may in fact be impossible,” echoed the ruling in *Cruzan*, “to live for anything without being prepared to die for something.”⁵² These and other cases set up a framework through which expectations about end-of-life care in clinical practice have “grown to encompass the process of informed consent for a

⁵⁰ *In re Schloendorff v. Society of New York Hospital.*, 105 NE 92, 211 NY 125, 133 NYS 1143 - 1914. Pg. 129.

⁵¹ *Planned Parenthood of Southeastern Pa. v. Casey*, 505 US 833 - Supreme Court 1992. Pg. 851.

⁵² *Cruzan v. Director, Mo. Dept. of Health*, 497 US 261 - Supreme Court 1990. Pg. 343.

very wide range of procedures and treatments,” such that “the common law and statutory right to refuse care is the logical corollary of the requirement of informed consent.”⁵³

As we saw with Dworkin, the *Cruzan* ruling established that states may regulate end of life decisions because they may have “fundamental” interests in protecting “life.” This was often repeated in the literature as the most fundamental balancing act of “death and dying:” on the one hand the respect for individual autonomy, on the other hand the state’s interest in the “sanctity of life.”⁵⁴ The law, as the language of the state, is a critical space where one protects one’s autonomy at the end of life. It was here, for example, that advanced directives and living wills sought to manage guardianship and surrogacy; to preserve and protect autonomy at a moment when the State may come in to intervene against one’s wishes. But at the same time, these “legal technologies” were claimed to require an education that goes beyond the law. Advanced directives and other legal measures are insufficient because they “promise more control over future care than is

⁵³ Lazzarini, Zita, Stephen Arons, and Alice Wisniewski. 2006. “Legal and policy lessons from the Schiavo case: Is our right to choose the medical care we want seriously at risk?” *Palliative and Supportive Care* 4 (2): 147.

⁵⁴ “The [consensus] declared the case was based on 2 [sic] sometimes conflicting principles: (1) the value of human life, and the default position to preserve it, and (2) the value of an individual’s freedom to govern his or her life as much as possible without harming others. In the case of conflict between those 2 [sic] principles, the second has precedence in order to prevent the imprisonment of patients by treatments they do not want or that may not coincide with their worldview.” Thus, physicians should be “educating their patients and the public about health care and health care ethics.” “If nothing else,” this article concludes, “the Schiavo case demonstrates that these issues are best dealt with privately, within families and between the patient and his or her caregivers.” Hook, C. Christopher, and Paul S. Mueller. 2005. “The Terri Schiavo Saga: The Making of a Tragedy and Lessons Learned.” *The Mayo Clinic Proceedings* 80 (11): 1449-1460.

possible.”⁵⁵ So too, for example, is it encouraged (and even morally responsible) to designate trusted “agents” who could make decisions in your stead should you be unable.⁵⁶ Physicians should help prepare patients and families “for future crises” so that when the “crisis hits,” the physician can “provide guidance; should help make decisions despite the inevitable uncertainties; should share responsibility for those decisions; and, above all, should courageously see patients and families through the fearsome experience of dying.”⁵⁷ Indeed, some physicians and ethicists suggested that advanced directives would be more “useful if they emphasized advance care planning” rather than simply asking patients to “complete a legal document.”⁵⁸

Such planning, in the “dying and death” consensus, forecasts an encounter with pain. The case of Ms. Schiavo solidified the narrative of pain by providing its negation: she was not aware and, therefore, could not “feel” pain. Yet even after her feeding tube was removed, Ms. Schiavo’s pain was medically “managed” by nurses, even if she was no longer fed or hydrated by a tube, and even though doctors could not tell if the measures were alleviating any suffering. The paradox, however, foregrounds the area

⁵⁵ Perkins, Henry S. 2007. “Controlling Death: The False Promise of Advance Directives.” *Annals of Internal Medicine* 147 (1): 51-57.

⁵⁶ “It is reasonable and responsible,” argues an article in the *New England Journal of Medicine*, “for all persons to designate health care agents to make treatment decisions for them when they are unable to make their own.” Annas, George J. 2005. “‘Culture of Life’ Politics at the Bedside -- The Case of Terri Schiavo.” *The New England Journal of Medicine* 352 (16): 1710-1715.

⁵⁷ *Ibid.* Pg. 55.

⁵⁸ Lo, Bernard, and Robert Steinbrook. 2004. “Resuscitating Advance Directives.” *The Archive of Internal Medicine* 164 (14): 1501-1506.

within the consensus that traces the nature and limits of ethical action by physicians in end of life care. Ethicists and physicians in the aftermath of the Schiavo case emphasized a fundamental distinction between palliative measures that comfort the patient (which are broadly accepted), and which may hasten death, and those that cause the patient to die. Only individuals may cause their own death, and while the physician must respect this decision, it remains proper for them to care for the patient by providing care that alleviates suffering “during the dying process.” The broad acceptance of the Oregon’s Death with Dignity law, in which patients could ask physicians for a lethal dose of medication to end life, rendered this distinction acute. In 2001, the law was challenged by the Ashcroft Justice Department, and was argued and ruled on by the Supreme Court in the months that followed the Schiavo case. In a 6-3 ruling, the Court dismissed then Attorney General Alberto Gonzales’ claim that the federal government could regulate the medical dispensation of lethal drugs under the Controlled Substances Act. For many legal scholars, however, the ruling signified the Supreme Courts recurring attempt to carve a space at the “end of life” where “medical care” found a positive valence: the court “might have been willing,” argued one article from an earlier, similar ruling, “to find a right to palliative care in the Constitution if state law were to be used to prevent a patient suffering extreme pain from receiving adequate pain management even if that hastened the patient’s death.”⁵⁹ Thus, within the normative paradigm of end of life, “pain” and its “management” has become a prime space for the ordering of medical practices. The

⁵⁹ Burt, Robert A. 1997. “The Supreme Court Speaks: Not assisted suicide but a constitutional right to palliative care.” *The New England Journal of Medicine* 337 (17): 1234–1236.

“constitutional analysis” of end-of-life now “opens up a promising area of work for those concerned with the quality of end-of-life and other palliative care,” where the idea of “right to adequate pain management” now needs “further clinical study and ... policy and legal development.”⁶⁰

Central to the “dying and death” consensus is the concept of “futile care.”⁶¹ This is not the same as palliative measures: while “futility” represents a threshold which a patient has crossed (after which no rehabilitation is attempted), palliative measures remain uninterrupted clinical practices throughout the “dying process.” I shall not here delve into all the details of the medical concept of “futility” or its legal articulation (e.g., Texas’ “Advance Directives Act,” also known as the “Texas Futile Care Law,” signed by then-governor George W. Bush). What I want to consider instead is how the vegetative patient intensifies the category of “futile care” by the linking of this patient in the literature to a recently devised pathological spectrum known as “disorders of consciousness.”⁶² At the core of the problem of the “dying and death” consensus is

⁶⁰ Lazzarini, Zita, Stephen Arons, and Alice Wisniewski. 2006. “Legal and policy lessons from the Schiavo case: Is our right to choose the medical care we want seriously at risk?” *Palliative and Supportive Care* 4 (2): 145–153. Weinman, Beth Packman. 2004. *National Consensus Project for Quality Palliative Care*. Weinman, Beth Packman. 2003. “Freedom from pain: Establishing a constitutional right to pain relief.” *Journal of Legal Medicine* 24 (4): 495-539.

⁶¹ Plows, C. W., R. M. Tenery, A. Hartford, D. Miller, H. Rakatansky, F. A. Riddick, V. Ruff, G. Wilkins, M. Ile, J Munson, and L. L. Emanuel. 1999. “Medical Futility in End-of-Life Care: Report of the Council on Ethical and Judicial Affairs.” *JAMA* 281 (10): 937-941.

⁶² To be sure, we are not speaking here about mental health or psychological disorders. We are speaking about the intersection of neuroscience and the medical care of brain-injured patients.

determining when attempts to cure should stop, when those attempts are no longer utile but futile, and how each problem is case dependent on the cognitive condition of the patient. In this regard, scholars after Schiavo responded to what they considered “misinterpretations” of her visibility in March of 2005, a visibility that was framed by many to argue that she was alive, conscious, aware and therefore that she needed medical attention which was not “futile.”

Consider a report from Institute of Medicine (IOM) on patients diagnosed in what is called the minimally conscious state (MCS). There exists, we are told, a “silent epidemic” constituting nothing less than a new population of brain injury patients.⁶³ In the literature, the last threshold of a living body with consciousness before it is considered a persistently vegetative state (PVS) is MCS. Thus the distinction between the “brain states” of PVS and MCS is considerably consequential: the first implies an impossibility for recovery, while the latter denotes the need for rehabilitation. A “national registry of such patients is needed,” we are told, referring to MCS patients, not only to “delineate this epidemiology,” but to “develop better prognostic markers.” The literature at the intersection of neuroscience and brain injury is replete with articles that perpetually reevaluate, query, and ultimately authorize the categories of consciousness and awareness as the proper ways to interpret the visibility of the patient.⁶⁴ Here, a

⁶³ Fins, Joseph J., Nicholas D. Schiff, and Kathleen M. Foley. 2007. “Late recovery from the minimally conscious state: ethical and policy implications.” *Neurology* 68 (4): 304–307.

⁶⁴ Bernat, James L., and David a Rottenberg. 2007. “Conscious awareness in PVS and MCS: The borderlands of neurology.” *Neurology* 68 (12): 885–886.

number of representational technologies -- from fMRI, EEG, and PET -- are deployed to articulate a new visibility of the brain-injured patient, including Ms. Schiavo, as so many disorders of consciousness. In short, against the argument that the Schiavo demonstrated a clearly living and conscious person, neuroscientists sought to deploy for the public a new visual grammar of brain-injury; one that reproduced the authority of its own internal categories with scientific images and explanations of the body as “merely reflexive.”

But here again there was an effort to normalize a larger project. If the public was confused about the Schiavo case and the meaning its clarity of diagnosis, then how, one article asked, “will it respond to new knowledge about disorders of consciousness and the capability of the brain to recover in the face of overwhelming injury?”⁶⁵ Those who argued Ms. Schiavo was alive, conscious, and could be rehabilitated were guilty of “[conflating] brain states.”

The “dying and death” consensus is a rehabilitative effort for a triumvirate of discourses that, over the last half century, have solidified a general technology of mortality. The Schiavo case -- because of the heated national debate through which the vegetative body and vegetative state were seen through cultural and social narratives of fear, anxiety, murder, activist judges, and an absence of ethical prudence -- acted as a counter-narrative to this general technology. Summarizing the view widely held among scholars reflecting on the Schiavo case, one article argued that the story which should

⁶⁵ Fins, Joseph J., Nicholas D. Schiff, and Kathleen M. Foley. 2007. “Late recovery from the minimally conscious state: Ethical and policy implications.” *Neurology* 68 (4): 304.

have been told in the national media was one of sound science and legitimate, medical and legal practices:

This case is an example of good standards and processes in medicine, law, and ethics. It exemplifies the use of medical consensus to create standards to diagnose persistent vegetative state, it is characterized by careful proceedings and review in keeping with a long tradition of legal procedure, and it embodies respect for self-determination as a fundamental U.S. principle that honors both individual preferences and a wide moral pluralism.⁶⁶

If there was a “crisis” in the Schiavo case, we were told in the months that followed her death, it was that the “dying and death” consensus was undermined by the national confusion over the medical condition of the vegetative body and conservative legislative fervor. In what can only be described as an exercise in reestablishing a normative paradigm, scientists, physicians, and legal scholars collaborated to supply a public audience with the guidance it had clearly lacked during the Schiavo case. The vegetative body is one discrete figure along an established, internally coherent horizon of legal, medical, and ethical thought. Neuroscience clarifies disputes over the visibility of Ms. Schiavo as so many confusions over the categories of consciousness and awareness. Legal scholars clarified the principle of autonomy “within the health care system” and sought to educate the public on their end of life decisions. And bioethicists sought to comfort the anxious that security could be found within the intimacy of the physician-patient relation.

⁶⁶ Perry, Joshua E., Larry R. Churchill, and Howard S. Kirshner. 2005. “The Terri Schiavo Case: Legal, Ethical, and Medical Perspectives.” *Ann Intern Med* 143 (10): 744-748.

For years following the Schiavo case, an entire national crisis was, in effect, re-interpreted and reproduced as an authoritative account of the “dying and death” consensus. The “dying and death” consensus channels the vegetative body into a set of legal procedures, clinical categories and concepts; it produces and intensifies the liberal autonomous subject in the heart of death, and makes this subject intelligible and privileged at the moment of death; it renders the body medically visible through a discursive repertoire of authorized scientific images, representations, and bodily significations; finally, it arbitrates the conduct of others as they intervene in bodies and subjects recognized on a horizon of mortality. And, as I have argued, the dying and death consensus finds its most exacting articulation through the vegetative body, which provides the medical, legal and ethical discourse of the “end of life” its most powerful edifying subject and a narrative that attaches itself to the lives of each individual in relation to their own death and the deaths of others.

7. The production of a vegetative subject through an apparatus of government

The case of Theresa Schiavo demonstrates the culturally contingent nature of our encounter with life and death today -- an encounter that is, by and large, mediated by the ways in which we make visible the body which occupies a relation to death. By taking as my problem in this chapter the visibility of Theresa Schiavo’s vegetative body, I indicated the set of discourses that converged to render life and death intelligible as objects of scientific, medical, legal, and ethical reflection and practice. But I also showed how, when this body emerged as a public figure, the meaning of this body was open to

contestation. Indeed, in 2005 the meaning of the vegetative body was configured as the protagonist of many social parables and political narratives that perplexed the specter of death as a general, collective encounter and experience. The polysemy of the vegetative body during this period posed a threat to a normative paradigm of dying and death which intervened to explain what we were seeing, what it meant, and what ought to be done. This paradigm -- the “dying and death consensus” -- functioned to contain the excesses of meaning that spilled over into the national media landscape that represented Ms. Schiavo’s body.

What cuts across the production of the vegetative body as a normative figure of legal, medical, and scientific institutions is its production as a particular kind of *subject*. Indeed, the dying and death consensus refers to the fact that a coordinated paradigm orders our relation to death *through* the production of a visible subject. We must distinguish the vegetative subject, however, from the assumption that it self-evidently belongs in a relation to death at all. The aim of the dying and death consensus is to produce a subject in relation to death by constraining our encounter with an experience that exceeds definition. In this regard, the various constitutive elements of the vegetative body are the conditions for the configuration of a social, legal, and ethical subject in relation to death. More than this, the dying and death consensus aims at producing our relations to the vegetative subject. How is it that a specific kind of body emerges as an object of medical, legal and ethical attention so that death is rendered meaningful as a basic and fundamental experience of human life?

It seems to me that if the dying and death consensus is the conditioning ground for the production of a subject in relation to death, this ground is established in the way institutions, discourses, and practices isolate, manage, and regulate certain aspects of the vegetative body. Cutting across the meaning and visibility of the vegetative body are a number of constitutive elements:

1. The vegetative body is made visible through a medical and scientific discourse of the brain as a discourse of human life itself. These discourses distinguish between the life of the body and the life of the brain; for each belongs to a different order of life and death. On the one hand, the body is something akin to a mechanical, pathological organism of very little medical sophistication. The life of the brain -- and specifically the biological production of consciousness and mind -- is however, a discourse human personhood and, at the same time, organizes the relation (brain-)death.
2. The legal intelligibility of the vegetative subject requires isolating and narrowing the forms by which the vegetative body exists as a subject of social institutions. What the courts must make visible here is the subject as an autonomous, self-determining, intentional being who can have end of life wishes when none exist. In doing so, the court must make irrelevant the ways in which the vegetative body's meaning as a social subject exists outside the narrow band of legal intelligibility.
3. This isn't to say, however, that social relations must not be managed by medical and legal practices, or that all social relations are irrelevant. Indeed, bioethics dovetails with both to produce a reading of the vegetative body through which a number of social relations are fashioned. Thus, concepts such as a physician's duty to care for life are reread as relations of total or futile care. The obligations that tie family or friends to the vegetative subject become those through which autonomy is exercised. The end of life is a social space in which relations are regulated to make guardianship or decision-making for the vegetative body possible. But, to be sure, the function of regulating social relations here is to move along a process of dying and death, mediated by social institutions, so as to bring about an outcome -- a decision on dying.
4. Finally, the vegetative body is a figure of economic and political provision: the body is one that requires a system of financing; it requires others to act to provide it subsistence, and health resources are consumed by this body. It is a

valuable source of organ commodities. But it is also a space in which the limits of the law *per se* are tested not only to limit certain kinds of actions (to sustain life, to intervene to prevent death) but to warrant them (to give people a right to terminate their own life by terminating their medical care).

What the constitutive elements of the vegetative subject signal is not only the wide meanings of the vegetative subject's relation to death as a cultural production, but the reciprocal dependence of its intelligibility on a social, political, economic, and ethical landscape of dying and death. Vegetative subjects are intelligible on a social field of dying and death that requires, for example, economic prudence, institutional procedures, State oversight, and ethical reflection. But it also requires intervening in social relationships, economic processes, and / or legal practices. It is as much the social field of dying and death that was so hotly debated in the Schiavo case as the meaning and death of the vegetative subject itself. What was at stake in the discursive disruption over Ms. Schiavo's body in 2005 was the meaning of her body in relation to terminating life-support and the role of courts, experts, lawmakers, and the State in a general field of dying and death. The work of the dying and death consensus was not only to normalize the meaning of the vegetative subject, but to intervene in the way dying and death are social and legal problems of institutions, ethical conduct, state interests, and health care provision.

One cannot think about the vegetative subject in contemporary society without, at the same time, examining the historical conditions on which that subject is meaningful and possible. How did the vegetative subject become possible as an object of medical, scientific, medical, and ethical thought in the first place? How was the vegetative subject

organized on a social, political or economic field of “dying and death” such that its regulation and government required the production of a “consensus?” We have already seen that this consensus is relatively fragile: the public visibility of Schiavo’s body nearly turned this consensus on its head.

We therefore need to understand the deployment of this consensus as a form of *power* -- that is, as a series of legal, institutional, and discursive means by which certain ends can be mobilized. But what are these ends, and who are the agents? This is a question that we need to take up as an historical question: in response to what concrete problems and struggles did reforms, rules, and regulations emerge to govern the problem of dying and death when a new figure of human life emerged to problematize our experience of death? In this regard, the achievement of this “consensus” *as a* consensus betrays the normative aspirations of this form of power as a social and political means of controlling the relation to dying and death. The deployment of the consensus after Schiavo’s death to re-affirm a long and established institutional and ethical framework was an exercise in re-establishing its authority as the sole and legitimate arbiter of a relation to dying and death.

This view of the “work” of the “dying and death consensus” raises another question. Earlier in this chapter, I showed that the vegetative subject is widely accepted as a figure on the *threshold* of life and death. How was this threshold produced, how did a certain kind of body become an important figure in its production and intelligibility, and how did this threshold occasion a social, political, ethical, and even economic response? We cannot take the existence of this threshold as a given. If the

vegetative subject occupies a particular threshold it is because this threshold has been historically produced, across a set of social, legal, ethical and economic problems, over a particular kind of subject *as a* threshold of life and death. If we want to know today what it means to redefine life and death (i.e., shift the threshold of life and death), we must take into account the social, legal, or economic field in which this threshold has been an historical problem. The to give an account of this “field” is to develop an account of how the vegetative subject was given its form, historically, as a vegetative *subject*.

Explanations in the literature about *why* the vegetative subject exists argue that it was because of the development of machines that could sustain bodily life and the medical interest in procuring organs for transplantation. Brain-dead patients kept alive by machines can be harvested for organs. As the form and number of brain injuries grew, however, there was a need to regulate the relation of dying and death more generally so as to accommodate a new kind of medical patient. Medicine, law, and bioethics were marshaled, so the story goes, to reconcile existing general values to an era ushered in by a new technological and scientific frontier. On this new horizon of human activity, medical definitions of death, legal battles over the “right to die,” and case-based bioethics panels attempted to make sense of the technical intervention into the life and death of the human body, and thereby accommodate it. In short, the vegetative subject is presumed to be one case among many others figured on a new horizon of dying and death, largely circumscribed by medical and technological advances. It is true that, sometimes, the technological reading of the vegetative subject as a problem of life and death is contested.

But alternative explanations, as I show in chapter four, do not consider the historical emergence of a new form of life (the life of the vegetative patient as a cypher of the life of the brain) as a problem that also occasioned a new form of power to assert itself over a fundamental human experience: our dying and death. Indeed, power and death have always had a relationship, but an historical inquiry into the vegetative subject as an object of power will show that a rationality of power new to our time found a home in the social, economic, political, and cultural life and death of the vegetative subject.

In the chapters that follow I want to develop a different account of the vegetative subject and, at the same time, a different account of the “consensus” which mediates our relation to new life and death technologies and experiences. We must simultaneously consider the problem of a subject alongside of the problem of regulating and managing the end of life. The vegetative body of Ms. Schiavo suggests that the end of life frontier *is not* prompted by sophisticated forms of medical intervention that can sustain, reproduce, or administer life alone. What this study of the case of Ms. Schiavo suggests is that this “end of life” frontier is framed by contestations over how we see and recognize bodies that occupy -- or fail to occupy -- positions on a social, economic, and political field of life and death. Both of these questions are problems of power. I started this chapter by asking how we could account for the “world” that is produced around the vegetative subject in order to make it intelligible. The production of a vegetative subject and the world around it depends upon a form of power to manage this production, regulate its meaning, and intervene in the social body through law, ethics, and economy. The production of this world must be examined historically through the various struggles

to come to terms with a new kind of subject and a new encounter with dying and death.

Within the circumscribed discourses of medicine, law, and bioethics, nearly half a century of reflection has been able to produce a set of discursive frames and practices through which the vegetative subject appears self-evidently along an “end of life” horizon. We must try to peel back these layers of self-evidence to see how these practices and discourses function through a particular kind of political rationality of power.

Chapter 2: The Biopolitics of the Vegetative Subject

“This was the proper task of a history of thought, as against a history of behaviors or representations: to define the conditions in which human beings ‘problematize’ what they are, what they do, and the world in which they live.”⁶⁷

1. The biopolitics of the vegetative subject

This aim of this chapter is to develop the conceptual and methodological arguments with which to carry out a broader inquiry into the vegetative subject and the dying and death consensus. There is a literature which can help us make sense of the life of the vegetative subject, as well as our encounter with death as a social, political, and ethical problem of power: biopolitical studies and governmentality studies. Both areas of scholarship originate in the work of Michel Foucault and are today widely developed. The first broad aim of this chapter, therefore, is to introduce and develop the categories and arguments necessary to account for the vegetative subject as a *biopolitical* subject, and the dying and death consensus as a *governmental* form of power -- that is, a form of power that articulates itself through an *apparatus of government*. Doing so will lay out the method by which an historical inquiry into a discourse of life and death will be pursued in chapter three, and a critique of the dying and death consensus pursued in chapter four. The second aim of this chapter is to develop the biopolitical and

⁶⁷ Foucault, Michel. 1990. *The History of Sexuality, vol. 2: The Uses of Pleasure*. New York, NY: Vintage.

governmental literature in a new direction. I engage in an exegesis of Foucault and others' work to develop an argument that comes to fruition at the end of chapter four: that the biopoliticization of the life of the vegetative subject is coextensive with a governmental apparatus that seeks to secure a space of freedom at the "end of life." What is at stake in this "freedom" is a matter we shall return to in chapter five when I offer to reread the Schiavo case.

Before turning to the biopolitical and governmental literature, however, I wish briefly to recap the major questions that emerged in the previous chapter in order to begin reframing them. First, I argued that cognition and nervous processes (the activity of the brain) are constitutive a discourse of life itself that is central to giving the vegetative subject its intelligibility. This is the *bio* in the term biopolitics, which does not simply refer to biology but, more precisely, to the epistemic paradigm (e.g., neuro- or cognitive science) that produces a particular knowledge of human beings *qua* living beings. How and why did western societies transform a science and knowledge of the brain's activity into a discourse of human existence as such? How and why did it come to occupy a constitutive relation with death? This chapter will introduce a set of terms, and a mode of historical inquiry -- what Foucault called *genealogy* -- to develop this discourse of life of the vegetative subject in chapter three.

The complementary questions raised to this discourse of life refer to the ways in which a discourse of life and death was rendered meaningful through the production of a particular kind of subject. This refers to the *politics* of biopolitics, i.e, the politics of the dying and death consensus, which has as its aim to secure a meaningful, visible, and

institutional subject. Again, the biopolitics of the vegetative subject requires an historical inquiry: in response to what kinds of struggles over the vegetative subject did the dying and death consensus emerge? As we've already seen, this consensus today is oriented to responding to a narrow band of questions: how can individuals decide about death, when is their life no longer one of a human being, which rights and standards belong to an individual at this point, and how does the end-of-life of one individual require others to adopt certain attitudes, engage or refrain from certain practices, and participate in certain forms of thought? But this orientation was not always the case, and it is important to understand how this consensus emerged in response to specific problems posed by the existence of the vegetative subject in a discourse of life and death.

Finally, we raised the question of the consensus as a problem of power. In this chapter we will frame the question of power more precisely with the term *apparatus*, which is short for an *apparatus of government*. An apparatus refers to a network of institutions and practices that are coordinated and oriented towards a particular set of social, economic, ethical, or political relations. The rationality of this form of power is not to dominate, coerce, discipline, or constrain but, rather, to manage and to intervene in a field of activities -- for example, the institutions and practices that care for end of life subjects -- in order to secure "freedom;" e.g., the "freedom" to choose to refuse medical life. But what is required to secure this freedom, and how must we understand ourselves in relation to the vegetative subject, as ethical subjects, in order to respect it? How does this apparatus intervene in the social body in order to secure this freedom? For Foucault and others, as I will show later, what animates an apparatus is a particular political

rationality. Governmentality is the political rationality of the dying and death apparatus we will be tracing. Its defining feature is that it intervenes in the social body to make possible the end of life as an experience that is simultaneously individualized and collectivized. Importantly, it is the vegetative subject which provides both the means and ends of the governmental rationality of this apparatus. That is, the “threshold of life and death,” which refers to the social, political, economic, and ethical relations and processes in which the apparatus intervenes, is conditioned by the production and intelligibility of a vegetative subject.

2. Biopolitical studies and the vegetative subject

In recent years, vibrant scholarly interest in Michel Foucault’s work on biopolitics has extended these concepts beyond their original historical analyses to novel political, cultural, and economic phenomena confronting society today.⁶⁸ At a very broad level, Foucault argued that power and knowledge in the early modern period became invested in the capacity to harness and regulate “life.” This move allowed him to re-think the early modern formation of the state through the discourses and techniques that emerged to

⁶⁸ Rabinow, Paul, and Nikolas Rose. 2006. “Biopower Today.” *BioSocieties* 1 (2): 195-217. Foucault, Michel. 1990. *The History of Sexuality, vol. 1: an Introduction*. New York, NY: Vintage. Rose, Nikolas. 2006. *The Politics of Life Itself: Biomedicine, Power, and Subjectivity in the Twenty-First Century*. Princeton, NJ: Princeton University Press. Rabinow, Paul. 2002. *French DNA: Trouble in Purgatory*. Chicago, IL: University of Chicago Press. Agamben, Giorgio. 1998. *Homo Sacer: Sovereign Power and Bare Life*. Stanford, CA: Stanford University Press. Braidotti, Rosi. 2007. “Bio-power and Necropolitics.” Published as “Biomacht und nekro-Politik. Überlegungen zu einer Ethik der Nachhaltigkeit.” *Springerin, Hefte für Gegenwartskunst* Band XIII Heft 2: 18-23.

manage, for example, a living population.⁶⁹ Biopower, the form of power specific to biopolitics, emerges at the moment when the subject is produced in social struggles that place life, and the capacity to know and regulate life, at the heart of power's operations. There is no single form of biopower. Indeed, the study of biopolitics places in the field of view of the historian the problem of power through a new problematization, such that we may discover rationalities of power where we did not see them before.

Foucault first developed biopower in a history, or genealogy, of sexuality. Sexuality and the reproductive capacity of human beings became, in his view, a vast biopolitical struggle in early modernity. Both were rationalized and ordered into knowledges and procedures with two global aims. First, sexuality was deployed to discipline individuals by developing a discourse of sex through which they regulated their own behavior. This form of power Foucault had already traced in *Discipline & Punish*. Second, however, Foucault showed how a knowledge of sex and reproduction aggregated vertically these individual behaviors into the purview of the state so that it could regulate the hygienic properties, reproductive capacities, or labor-power of a population. Indeed, it was the life of the population as a whole -- its growth dynamics, consumption, laboring capacity -- which became intelligible and manageable by the State when a knowledge of life and a form of power over life was grounded in sexuality. This latter problem was the

⁶⁹ The term "life" is extremely polysemic in the biopolitical literature, much as it is in philosophy or in everyday use. By "life" is generally meant, however, those forms of knowledge that seek to not only make sense of human beings as "living beings," but how those forms of knowledge are tied to social practices, economic growth, and the development of new rights. In other words, "life" refers to the intersection between biological health and social flourishing, pathology or disease and new forms of patienthood, or sciences of the mind and a psychiatric care.

domain of what Foucault called biopower. The emergence of biological life as a site of political struggles allows for individuals to become subjects whose lives are intelligible and relevant to the activities of the State.⁷⁰ Indeed, it was because early modern political treatises and practices produced a science of the population *as a* population through, for example, sexuality that the State could emerge at all as an entity that could know, anticipate, and manage the life of a population.

Therefore, biopower refers to rationalities of power in modern societies and social relations that are possible when the science and knowledge of life, and the capacity to intervene in life, begin to remake our understanding of human beings as such. The *bio* of the term refers to the ways our “natural lives” and deaths are rendered visible through a scientific discourse so as to produce us as subjects intelligible to a form of power. In Foucault’s early studies, this form of power was oriented towards the activities of the State. But as we shall see in a moment, not all forms of biopower have this quality. That said, nearly all biopolitical studies take as one of their most important problems how it is that biological discourse of life and death renders us visible as *governable* subjects, i.e., subjects whose lives and activities as part of a population or group is the object of more

⁷⁰ This term is particularly important not only in this dissertation, but in recent studies of biopower. We can define “government” as a style of thought and a discursive practice, one that emerges again in early modernity to take control of, and intervene in, a growing number of social and economic activities. Hence, we can speak about the “government of children” in education, the “government of health,” or the “government of economic growth,” and so on. What is important here is, as Rose and Miller have argued, that governing, or “governmentality,” is defined by “rationalities” that make intelligible a field of social, economic, and political activity and also “technologies” that intervene in those activities to “structure” it as a “field of conduct.”

general strategies and tactics of government. We shall return to the problem of government in more detail below.

Since Foucault's initial work, many scholars have extended the study of biopower beyond the problem of sexuality to a variety of different biopolitical contestations. This is due, in part, to the continued interest in Foucault's lectures at the Collège de France which, after the lectures on biopower, buttressed Foucault's study of neoliberal governmentality.⁷¹ But it is also due to scholars' attention to new biopolitical struggles. In the American social sciences, for example, biopower has been a point of departure for understanding biosecurity and what Michael Dillon calls "global biopolitical governance."⁷² Biopower studies have produced rich critiques of the growing genomic, pharmaceutical, and molecular interventions at the level of "life itself."⁷³ Some studies have, for example, reframed debates over health care reform, advances in the biosciences,

⁷¹ Foucault, Michel. 2008. *The Birth of Biopolitics: Lectures at the College de France, 1978-1979*. Hampshire, UK: Palgrave Macmillan. Burchell, Graham, Colin Gordon, and Peter Miller. 1991. *The Foucault Effect: Studies in Governmentality*. Chicago, IL: University of Chicago Press. Dean, Mitchell. 2009. *Governmentality: Power and Rule in Modern Society*. Newbury Park, CA: Sage. Barry, Andrew, Thomas Osborne, and Nikolas Rose, ed. 1996. *Foucault and political reason*. London, UK: UCL Press. Rose, Nikolas and Peter Miller. 2008. *Governing the Present: Administering Economic, Social and Personal Life*. Cambridge, UK: Polity.

⁷² Dillon, Michael. 2004. "The security of governance." *Global Governmentality: Governing International Spaces*. London, UK: Routledge. Braun, Bruce. 2007. "Biopolitics and the molecularization of life." *Cultural Geographies* 14 (1): 6-28. Lakoff, Andrew, Stephen J. Collier. 2008. *Biosecurity Interventions: Global Health and Security in Question*. New York, NY: Columbia University Press. Petryna, Adriana. 2002. *Life Exposed: Biological Citizens after Chernobyl*. Princeton, NJ: Princeton University Press.

⁷³ Rose, Nikolas. 2006. *The Politics of Life Itself: Biomedicine, Power, and Subjectivity in the Twenty-First Century*. Princeton: Princeton University Press.

and the expanding use of biotechnologies as so many different questions of biopower.⁷⁴ Less well known in the United States is the research by European scholars on the biopolitical ramifications of capitalism. Indeed, these studies, growing out of a post-Marxist critique of capital, have sought to examine how various forms of global power intervene in the life, growth, and death of various third-world populations in the interest of global capital and global institutions.⁷⁵ Agamben, in a different vein, has developed an interesting critique of biopower through an inquiry into sovereign power and what he calls the production of the subject as “bare life.”⁷⁶

Despite those sometimes-gloomy investigations, the polysemy of the term biopolitics has been a vehicle to re-imagine our political life.⁷⁷ As Nikolas Rose has argued, today “biology” no longer implies “destiny,” but “opportunity.”⁷⁸ The re-

⁷⁴ Franklin, Sarah, and Margaret Lock, ed. 2003. *Remaking Life & Death: Toward an Anthropology of the Biosciences*. Santa Fe, NM: SAR Press. Lock, Margaret. 2001. *Twice Dead: Organ Transplants and the Reinvention of Death*. Berkeley, CA: University of California Press. Hogle, Linda F. 1999. *Recovering the Nation's Body: Cultural Memory, Medicine, and the Politics of Redemption*. New Brunswick, NJ: Rutgers University Press. Franklin, Sarah, Celia Lury, and Jackie Stacey. 2000. *Global Nature, Global Culture*. London, UK: Sage. Rabinow, Paul. 1999. “Artificiality and Enlightenment: From Sociobiology to Biosociality.” Pp. 407-416 in Mario Biagioli, ed. *The Science Studies Reader*. London, UK: Routledge.

⁷⁵ Hardt, Michael, and Antonio Negri. 2005. *Multitude: War and Democracy in the Age of Empire*. New York: Penguin. Hardt, Michael, and Antonio Negri. 2001. *Empire*. Cambridge, MA: Harvard University Press.

⁷⁶ Agamben, Giorgio. 1998. *Homo Sacer: Sovereign Power and Bare Life*. Stanford, CA: Stanford University Press.

⁷⁷ Esposito, Roberto. 2008. *Bíos: Biopolitics and Philosophy*. Minneapolis, MN: University of Minnesota Press.

⁷⁸ *The Politics of Life Itself*. Pg. 51.

imagination of our politics corresponds, in these authors' view, to the loss of the traditional forms by which to organize ourselves as political subjects, and their reorganization in our capacity to "make life grow." These changes do not entail a loss of a humanity, they signal the necessity of charting and steering a new *anthropos* -- the category of human being who is equipped to deal with politics -- within emerging social, political, cultural, and economic ways of living.⁷⁹

Whatever their differences of approach and object, biopower studies have in common the goal of remapping our political contestations through an interrogation of how biological life, sometimes discussed in this literature as *zoe*, is organized variably into different "forms of life," or *bios*.⁸⁰ For our study, *zoe* refers to the bare biological

⁷⁹ By "form of life" I mean to refer to the how the intersection between our biology and sociality (for example) become practices, activities, and norms. Take, for example, the "fetus," and the ways in which, in the last century, a whole enterprise in debating the "beginning of life," images of the fetal development, a large catalogue of prenatal care, or the movement to encourage new kinds of birthing practices for the sake of fetal health, have all emerged to transform the "mere" biological life of the fetus into debates about personhood, health reform, and morality. In this way we could speak of the fetus as a "form of life." As for the term "anthropos," this is taken from Paul Rabinow's recent work where, as he argues, today the development of the biosciences and biotechnology are no longer tied to the sciences of the humanities -- the science of Man -- but rather a new cartography of human life, of *anthropos*. Rabinow, Paul. 2003. *Anthropos Today: Reflections on Modern Equipment*. New Brunswick: Princeton University Press.

⁸⁰ The terms *zoe* and *bios* are usually referred, in the biopolitical literature, to their use by Agamben in his book *Homo Sacer: Sovereign Power and Bare Life*. There, explains the origins of these terms: "The Greeks had no single term to express what we mean by the world 'life.' They used two terms that, although traceable to a common etymological root, are semantically and morphologically distinct: *zoe*, which expressed the simple of fact of living common to all living beings (animals, men, or gods), and *bios*, which indicated the form or way of living proper to an individual or group." Agamben, Giorgio. 1998. *Homo Sacer: Sovereign Power and Bare Life*. Stanford, CA: Stanford University Press. Pg. 1.

production of mental life, or consciousness, sufficient to account for a human subject; in turn, the legal, medical, economic, or ethical construction of this form of life *as a subject* refers to the production of a *bios*, life that has a general political intelligibility through a particular form of power, biopower. Indeed, it is by examining where the form of life specific to the vegetative subject exists, and emerged from historically, as biopolitical struggles that we will discern how the dying and death apparatus functions as a form of power. Let us now situate this project more concretely as a biopolitical project.

Although a great deal of attention in biopower studies has been given to life and death at the molecular or genetic level, comparatively few scholars have studied life and death at the level of the brain, consciousness, cognitive science and neuroscience. In chapter three, I will chart a genealogy of life, which I call *cognizant life*, and demonstrate how in the mid 20th century this form of biological life became a discourse of human life and death. *Cognizant life* refers to the bare processes of the brain that produce consciousness, and it is a major category and concept in this thesis. Its historical formation and contemporary circulation as a discourse of life and death are central to our understanding of the production of the vegetative subject as a biopolitical subject. For what a recovery of the scientific discourse which produces cognizant life will allow us to see is how a particular biopolitical subject was rendered intelligible in relation to new material and social practices of life and death.

The new medicalization of the life and death of the vegetative subject through nervous activity in the 1960s, for example, is a major issue. It emerges in response to a specific set of problems during that period that revolve around the problem of dealing

with patients whose bodies live with the aid of machines, yet remain permanently unconscious. Dealing with this problem is what I would call a biopolitical struggle, for the resolution to this problem, we shall see in chapter four, required coordinating the procedures, rules, and practices of institutions of law, ethics, and medicine. Thus, the vegetative subject corresponds to a knowledge of life of human beings and, at the same time, operates as the condition for a network of relations between institutions and individuals to be organized through relations of biopower. The vegetative body is a space on which a vegetative subject emerges as a medium for certain biopolitical struggles and the operation of biopower.

To recover the vegetative subject through a discourse of life and death specific to the vegetative body does not mean that the goal of this biopolitical study is to grasp the *experience* of the vegetative patient. If neuroscience is correct, this is impossible anyway, for the cognitive conditions for experience and consciousness are, by definition, absent from the vegetative body. By vegetative subject I don't mean to argue, either, that we are already vegetative, or that to be vegetative is a form of experience we already occupy. I mean to refer to those social processes, discursive practices, institutional structures, discourses, knowledges, and power relations that are linked together in order to make possible a subject *when* confronted with a body that is merely vegetative. What interests me is how the whole range of elements which render the vegetative subject intelligible as a subject also produce this subject. I want to understand how it is possible to go from a life that is without any specific human qualities to a particular form of life

that places in question some of our social, political, economic, and culture activities and relations.

The vegetative subject is not only produced from a discourse of life and death in response to particular historical struggles. It is also the vehicle through which a particular form of biopower extends itself across a field of social, economic, political, and cultural activities. Foucault made this argument when he showed how sexuality became a *general discourse* of individual conduct and state actions when the problems of “sexuality” were multiplied across economy (how do we provide for the health and hygiene of the population), war (how can we mobilize and sustain an army), famine (what dynamics of provision organize the life of a population), and state power (how can the state reproduce its authority through the life of a population). Indeed, a major staple of all biopolitical studies is to demonstrate that the production of biopolitical subjects allows for a whole range of social, economic, political, and cultural struggles to be brought into the orbit of life and death. As we shall see in a moment, coordinating broad domains of human activity is one of the most important strategic functions of biopower, especially in the case of the vegetative subject. First we must capture broadly how far the field of activities where the vegetative subject appears as a biopolitical struggle extends.

In the last chapter, we saw that the life and death of the vegetative subject transforms the vegetative body into a space of action. For example, the vegetative body’s dependence and care is regulated, managed, instrumentalized and coordinated across a number of legal procedures and ethical regulations. The extension of this subject implies that the activity and thought of others, who are actively drawn into the orbit of the

vegetative subject, is a critical way in which the life and death of the vegetative subject exists. Indeed, the relationality of others to the vegetative subject is one of the most important aspects of biopower. For the vegetative subject is not only produced in the care for the life of this body, but through an order of cost, uncertainty, existential finitude, grief, loss, burden, subsistence, provision, or futility, all of which render intelligible and meaningful the actions of others *in relation* to this body. And by rendering them intelligible and meaningful through a subject, they are thereby an object of management and regulation.

The extension of the vegetative subject across domains of thought and practices, and its relationality to others that structures these domains of thought and practice, will be an important object of inquiry in chapter four. Our goal in chapter four will be to examine how “styles of thought” and micro-practices link the vegetative subject to a number of social institutions (the laboratory, the courtroom, the family, etc.) precisely because what is regulated and managed by biopower are the relations this subject has to others. For what is unique about the vegetative subject is that its entire existence depends on the actions of others. Every single aspect of the existence of the vegetative subject depends on managing who can do what, when, and how to the vegetative subject and with what authority. The biopower at play here can be seen when hospitals equip themselves with bioethics boards to legitimate end of life decisions; when neuroscientists test new brain-stimulation devices on vegetative subjects to advance inquiry into the production of consciousness in the brain; and when families are tasked by the State to absorb a set of dilemmas so that some individuals become decision-makers. All are

activities organized through social relations with the vegetative subject, each animated by a rationality of biopower.

In short, giving a three-fold account of a vegetative subject is critical to this biopolitical study. First, we must recover a discourse of human life and death organized through a scientific epistemology of neural production of consciousness in the brain. This recovers the historical conditions under which a discourse of life -- what I called cognizant life -- renders intelligible the human subject in a new way. Second, we must retrace where, and why, this form of life becomes a biopolitical struggle; i.e., a problem to which institutions and discourses respond by producing cognizant life *as a* subject. Finally, we must understand how a particular rationality of biopower extends itself through the vegetative subject by deploying this subject across different domains of human activity: medicine, law, ethics, and economy. How, now that we have a firm view of the vegetative subject, will we analyze the rationality of biopower at issue?

In Foucault's terms, we will analyze the dying and death consensus as an apparatus; that is, as a form of governmental power. The rationality of this form of power, as I stated above, aims to intervene in the set of relationships mediated by the vegetative subject so as to individualize individuals and link them to a collectivity. For example, micro-practices of health around the care of the vegetative subject are linked to Medicare and systems of social provision. The legal form of life through which cognizant life is intelligible mobilizes, as we shall see, the State to intervene based on its interest in life, due process, and liability. Finally, ethical reflection on the care for the vegetative subject delegates individual decisions (who decides on behalf of the vegetative

subject) to certain social institutions (the family) and not others. In each of these cases, it is the *conduct of others* in relation to the vegetative subject which is individualized (who am I to act in relation to the vegetative subject) and collectivized (the interests of the State, ethics boards, etc.). That is what is unique about the form of biopower which animates the life and death of the vegetative subject: the encounter with this subject entails a “vertical escalation” of individual conduct into the purview of the state, economy, and systems of social provision and entitlement (e.g., health insurance). And reciprocally, the State and various institutions aim to develop forms of intervention (i.e., end of life care institutions, social programs to reduce end of life costs, etc.) into the social, economic, and political processes where the vegetative subject exists as a biopolitical struggle. Indeed, as I will show and argue in the second half of this chapter, the aim of a *governmental* form of power is to intervene the social processes of living subjects in order to secure a form of *freedom* there.

What is at stake in this study therefore is not that we might settle the struggles described in the previous chapter, articulate a set of rights that may correspond to the care of vegetative patient, or develop a set of political measures that reconcile their often orthogonal positions. Just as the vegetative body and patient emerges historically, so too will it fade away, not because we will have discovered the truth about the relation between life and consciousness, or because we have achieved a technological superiority that allows us to rehabilitate vegetative patients or be certain about their non-presence. No, what will happen is that the apparatuses that produce us as ethical and moral

subjects, through various relations of power, organized by our knowledge of life, will eventually shift to another set of struggles.

In the meantime, we must discover how a certain form of life and death, embodied and expressed through the vegetative subject, is linked through biopower with our politics, society, economy, and culture. What is at issue here is not, as in other biopolitical studies, a politics of inclusion and rights,⁸¹ a crisis of ethical thought for our new forms of biological citizenship,⁸² or the harbinger of an engineered biosociality,⁸³ but a *governmental problem* in response to the fact that human beings now control death *as* they control of life. For the crisis of the vegetative subject is, as I will show in chapter four, precisely that a governmental apparatus aims to produce a free, autonomous subject in a body that is permanently unconscious and that may be dead. The governmental apparatus has, as its main problem, to secure a practice of freedom for a subject who is, by all accounts, not capable of exercising freedom. The discovery and description of the governmental apparatus of the vegetative subject, therefore, marks a dramatic shift in how we recognize not only a form of freedom, but the social, political, and ethical processes necessary to secure it for a human subject who is in a state of “unfreedom.” We will find that there is much at stake in reproducing this notion of freedom as a

⁸¹ Cadman, Louisa. 2009. “Life and Death Decisions in our Posthuman(ist) Times.” *Antipode* 41 (1): 133-158.

⁸² Zylinska, Joanna. 2009. *Bioethics in the Age of New Media*. Cambridge, MA: MIT Press.

⁸³ Rabinow, Paul. 1999. “Artificiality and Enlightenment: From Sociobiology to Biosociality.” Pp. 407-416 in Mario Biagioli, ed. *The Science Studies Reader*. London, UK: Routledge.

normative and ethical commitment which our social, political, and economic lives must make possible.

3. Rationalities of life, death and the genealogy of the vegetative subject

So far I have only provided a very general introduction to biopolitical studies. Broadly speaking, all biopolitical studies examine the historical emergence of a particular discourse and science of life, and situate this discourse within a critique of biopolitical struggles (social relations, ethical dilemmas, economic management, state regulation) in order to identify a distinct form of what we called biopower. In order for biopolitical contestations to exist, life must be problematized in a particular kind of way, and power responds, as biopower, to these problematizations. Situating our biopolitical project, however, meant slightly departing from most biopolitical studies. Indeed, rather than take a discourse only of life, the figure of death is here critical: cognizant life is not simply a discourse of human life, it is the means by which a relation to death is reorganized. At the same time, I indicated that the form of biopower specific to the vegetative subject is one that interprets the dying and death consensus as a governmental apparatus that intervenes to form a space of “freedom” at the end of life because it interprets the vegetative subject as a condition of unfreedom. Before engaging in a textual exegesis to develop this argument, I wish to briefly orient our attention to cognizant life and death more concretely; for a genealogy of this discourse of life and death will be the major topic of chapter four.

A number of authors, in the last few decades, have articulated the different rationalities of life which today constitute a knowledge of our biological existence as living beings. Rose, in the field of biomedicine and pharmaceuticals, has shown how our biology has been increasingly turned into a science of life at the molecular level, turning physiological life into processes and material from which can be extracted biovalue and biocapital, making possible new forms of social existence requiring corresponding forms of liberal governance.⁸⁴ Rabinow and others have sought to chart, in the area of genomics and genetic engineering, the intersection between new rationalities of life and what he calls “biosociality.” In other recent studies, they have examined how epidemics of disease are rendered intelligible as crises of biosecurity.⁸⁵ Sarah Franklin, Margaret Lock, and many others, in a recent collection of essays, explored a set of vignettes in the biosciences, each redefining life and death in research on cloning, cell death, embryonic development and stem-cell research.⁸⁶ Agamben, in a very different way, has in my view articulated another such rationality, that by which our biology is a form of mere, or “naked,” life, a form of individual life that has been stripped of its human qualities to such a degree that its death appears as mere consequence, outside of law and norms.

⁸⁴ Rose, Nikolas. 2006. *The Politics of Life Itself: Biomedicine, Power, and Subjectivity in the Twenty-First Century*. Princeton, NJ: Princeton University Press.

⁸⁵ Lakoff, Andrew, and Stephen J Collier. 2008. *Biosecurity Interventions: Global Health and Security in Question*. New York, NY: Columbia University Press. Rabinow, Paul. 2002. *French DNA: Trouble in Purgatory*. Chicago, IL: University of Chicago Press.

⁸⁶ Franklin, Sarah, and Margaret Lock, ed. 2003. *Remaking Life & Death: Toward an Anthropology of the Biosciences*. Santa Fe, NM: SAR Press.

Clearly, we are living in a society where multiple and diverse rationalities of biological life have emerged. There is no reason to expect that one rationality will dominate another, or that they might reconcile themselves each to other. It is thus in this sense that this dissertation has to confront the problem of life and death, not as a total and fundamental redefinition of life or a change in our experience of death, but rather as one or two rationalities of life and death among other rationalities at play. Just as designer babies, cloning, or gene therapy represent a particular organization and knowledge of life (i.e., DNA) manifested in different kinds of biopolitical contestations, so the vegetative subject represents a particular knowledge of life, cognizant life, manifested across different biopolitical contestations. What is at stake here is not only a knowledge, or rationality of life, but also a knowledge and rationality of death. As Cadman has argued, for example, the vegetative subject (e.g., the end-of-life patient) expresses a series of contestations that today may be better understood as the limit-figures of a particular rationality of life. And it is these limits to our knowledge of the life of the brain that organize a relation to death and manifested in distinct ways: as a crisis in scientific certainty (what is consciousness), or a limit in medical rehabilitation.

The history of western brain science is relatively well-known. One can trace it from the Greeks, through the medieval period to Thomas Willis, and then through Gall and Spurzheim, to the birth of modern neuroscience in the 19th and 20th century in figures such as Sherrington, Hughlings-Jackson, Bastian, Cushing, Ferrier, and Horsely, among

others.⁸⁷ What is significant from the point of view of the vegetative subject, however, is that the rationalities of the brain and nervous system pertinent to human life explode in the 19th century because of the nervous systems' shifting discursive relationship to the pathology, anatomy, and physiology of the body on the one hand, and philosophical theories of mind on the other. What I want to sketch very briefly is not a genealogy of these shifts (this is the subject of chapter three), but rather a few important landmarks in the knowledge of the brain that allowed for the inversion of a rationality of life that, in the 19th century, tied our nervous system to human life. How, for example, was it possible that in the span of nearly a century our knowledge of ourselves as living beings with a nervous system escaped from the discursive confines of the bodily physiological or pathological life (where it had remained for centuries) into a register of the "living brain?" How did it happen that this "living brain" had its own internal logic and functioning. And how was it possible to imagine designing and building a brain that could regulate the behavior of any body given to it?⁸⁸ By what turns did a rationality of life invert the traditional relationship between the brain and the body in order to make possible the "life of the brain" as an independent and expansive discourse of life itself?

⁸⁷ Spillane, John D. 1976. "Hughling Jackson's American Contemporaries: The Birth of American Neurology." *Proc. Roy. Soc. Med.* 69. Greenblatt, Samuel H., ed. 1997. *A history of neurosurgery: in its scientific and professional contexts*. Park Ridge, IL: American Association of Neurological Surgeons.

⁸⁸ Ashby, W. R. 1965. *Design for a Brain: The Origin of Adaptive Behavior*. New York, NY: Wiley. Walter, W. G. 1963. *The Living Brain*. New York, NY: W. W. Norton and Company.

In the early 19th century, knowledge of the nervous system was rationalized in relation to the sensing and motoring properties of the body through the theory of localization. As Starr and Harrington, among others, have shown, localization and the “double-brain” were both problems of, and solutions to, a philosophical empiricism that extended the experience of the body and the mind throughout the operations of the nervous systems.⁸⁹ In one form or another, localization was, and remains, an important feature of the science of the brain. But in the 19th century, it came to dominate nearly all of neuroscience and neurosurgery. In other respects, the nervous system was likened to an internal system of communication, what more than one 19th century neuroscientist compared to the telegraph. Yet while “localization” made it possible to develop a clinical pathology of brain injury and an experimental science, its relation to the life of the individual remained tied within the horizon of bodily experience, and in two ways. Either it was understood as a conduit of electrical currents needed to generate motor actions or, in a reverse direction, as a conduit by which sensation from the outside environment could be communicated to the mind. In this regard, the brain was not a regulator of the body, but was regulated by the cardiovascular system of the living body.

In the early 20th century, our knowledge of nervous processes in neuroscience underwent a permutation. In part, this was due to the expanding medical import of neuroscience, which was called to respond to the effects of nerve-gas attacks on soldiers

⁸⁹ Harrington, Anne. 1987. *Medicine, Mind, and the Double Brain: A Study in Nineteenth-Century Thought*. Princeton, NJ: Princeton University Press. Star, Susan L. 1989. *Regions of the Mind: Brain Research and the Quest for Scientific Certainty*. Stanford, CA: Stanford University Press.

during World War I. At the same time, neuroscience stumbled upon a new way of representing cerebral activity with the encephalogram (EEG), invented by the German psychologist Hans Berger. What was new in the EEG was not that it could record electrical activity (this had been done for a long time), or that the graphs aided existing neuroscience (they were initially rejected by most neuroscientists as irrelevant). What was new was Berger's claim that the records of electrical activity represented internal variations in the brain's activity *independent* of its functions in coordinating sensations or motor actions.⁹⁰ These internal rhythms could be correlated, he argued, to various personality types and a psychological profiles. Treating individual personality and psychiatric neuroses (by expanding the medical use of lobotomy, for example), Berger argued, entailed treating the activity of the brain internal to itself and its own development. One can trace, in fact, a research tradition that developed further representational techniques of the brain's activity, increasing the importance in medical, evidentiary, and pharmaceutical applications. What is significant, in any case, was the belief that the brain could achieve its own interiority, disconnected from its tie to the body and linked, instead, to the personality of the individual and, eventually, the mind.

The discursive emancipation of the brain from the body, and indeed from the rest of the nervous system, was achieved and codified by cybernetics and, in short, the computerization of the brain as both a cognitive system and as a distributed network of neurons. As Jean-Pierre Dupuy has shown, the age of cybernetics inaugurates a

⁹⁰ Berger, H. 1969. *Hans Berger on the electroencephalogram of man: the fourteen original reports on the human electroencephalogram*. Maryland Heights, MO: Elsevier Pub. Co.

“mechanization of mind.” This moment corresponds to the birth of the cognitive sciences. And it is at this moment that we find the brain no longer as simply a conduit or communication center locked within a sensing or motoring body but, as Sherrington argued, an “integrative system,” computing and processing information.⁹¹ The brain comes to be understood as both a mechanical device and an adaptive system; its activity internal to itself is self-sustaining, operating via feedback and inhibition processes.⁹² Cybernetics claimed that the logic of the brain as a distributed computing device could be seen across all kinds of natural phenomena and behavioral patterns as observable patterns of activation, feedback, and inhibition.

It is at this point, broadly speaking, that the brain could be reconnected to the body, not as an organ that is conditioned by the prior existence of the body, but as an organ that commands and controls the body, and uses it as a medium through which to develop and adapt. Behaviorism, whether in its Russian (Pavlov) or American (Watson, Skinner) versions, is now possible, so that the brain develops through conditioned responses between it and its environs, mediated by the body. Indeed, the insistence on models of the nervous function correspond to the idea that, so long as any number of basic inputs are provided to it, a brain can command the life of an organism in an environment regardless of the material used to construct the body. The birth of cognitive science was only possible, however, when the nervous system as a *computational* organ

⁹¹ Sherrington, Charles. 1947 (1906). *The Integrative Action of the Nervous System*. 2nd Edition. New Haven, CT: Yale University Press. See in particular chapter 9, “The physiological position and dominance of the brain,” pp. 308-352.

⁹² *Design for a Brain*.

was abstracted from the body and reconnected to it as so many different bodily forms that interact with, and learn or adapt within, an environment. It was precisely at this point that the brain emerged as an expansive “rationality of life” of an organism in environments, where it developed, adapted, learned and changed goal-directed behaviors based on its interior processes tied, through a body, to an exterior world.

The rationality of life in the brain specific to the vegetative subject, which I have called cognizant life, mobilized a biological, physicalist interpretation of mind. In the discursive space between the interiority of the brain’s processes and functioning (on which cognitive science and neuropsychology began to develop a theory of mind), and the exteriority of the body (which could be sustained with increasing efficiency by medical science) the vegetative subject emerged as a specific problem of caring for the life of a living patient. But cognizant life was also crucial in developing the relation to death. In the early 1950s, for example, when cognitive scientists and second-generation cyberneticians sought to design and build a brain with transistors, it became possible to ask if the loss of electrical activity in the brain, and thereby consciousness and mind, entailed the death of the individual himself or herself.⁹³ The “entity” of life and death in play was consciousness and coma, and because it was given a new biological interpretation in the brain as cognizant life that it could be problematized across a number of human activities.

⁹³ Wertheimer P., M. Jouvet, J. Descotes. 1959 “A propos du diagnostic de la mort du système nerveux dans les comas avec arrêt respiratoire traités par respiration artificielle.” *Presse Médicale* 67: 87-88.

The rationality of cognizant life that tied the brain to the body (or cognition to behavior, computation to living processes, etc.) did not expand only in its scientific sophistication, but also across forms of individual experience and life in society. As some scholars have observed, this rationality of life and death was necessary for the expansion of organ transplantation.⁹⁴ At the heart of some these new practices, however, was a particular crisis: while cognizant life is the bare biological production of consciousness, it remains uncertain what nervous and cognitive processes are necessary or sufficient to make a “self” possible. This crisis was most acute in the case of the vegetative subject. Interestingly, responding to this crisis did not unfold in neuroscience or medicine only, but in ethical and legal measures. The crisis here is not, as in other biopolitical struggles, a question of risk, security, or the manufacture of new kinds of bodies. It expresses itself as limits of our capacity to link human consciousness, and the uncertainty of locating personhood, with a decision about how to terminate medical care. If the seat of the individual’s conscious mind is internal to the processes of the brain itself, then where is the threshold that expresses where what is specifically human begins and ends? Where, furthermore, is the limit to human intervention into the bodily processes that sustain the brain as an organ among other physiological organs? The crisis is therefore one of imposing *norms* in a situation where life can be sustained *ad infinitum*. It is at this point that consciousness is intensified not only as a neuroscientific concept, but as a medical, ethical, and legal concept. For the law and ethics are called upon to complete the

⁹⁴ Hogle, Linda F. 1999. *Recovering the Nation’s Body: Cultural Memory, Medicine, and the Politics of Redemption*. New Brunswick, NJ: Rutgers University Press.

operation of recognizing a human subject in cognizant life in order to impose norms and limits, through a particular subject, on a situation where bodily life can be supported indefinitely.

How then are we to understand death in relation to cognizant life? To begin, we might consider how death has figured in biopolitical studies. In an influential essay, Achilles Mbembe recovers some of Foucault's biopolitical arguments to claim that a certain "necropolitics" is at work in contemporary biopolitical struggles. According to Mbembe, the suicide bomber should be understood as evidence that death (as material annihilation) has today become a form of self-articulation in a Hegelian struggle for recognition, such that the material negation of one's body entails the assertion of the subject.⁹⁵ In a different context, Cadman has argued that death in end-of-life decisions represents a limit of our capacities to "make life grow," and is in fact a figure of the post-human.⁹⁶ Agamben, as I stated above, has argued explicitly that the vegetative subject embodies a form of life where death, as a "zone of indistinction between life and law," makes possible killing without committing murder.⁹⁷

I think that these are partially relevant ways to understand the death of the vegetative subject, although I disagree with Mbembe that suicide bombing is a form of political self-realization and, moreover, I believe that the "death" in question represents

⁹⁵ Mbembe, Achilles. 2003. "Necropolitics." *Public Culture* 15 (1): 11-40.

⁹⁶ Dean, Mitchell. 2004. "Four Theses on the Powers of Life and Death." *Contretemps* (5): 16-29.

⁹⁷ Agamben, Giorgio. 1998. *Homo Sacer: Sovereign Power and Bare Life*. Stanford, CA: Stanford University Press. See pg. 60-72.

more than a form of murder with impunity. The death of the vegetative subject intensifies the legal, medical, moral, and social discourses that articulate a body as a living person, and developing the problem of death requires looking at all these areas of activity. Thus, the rationality of death that we are after has less to do with a precise definition of death, and more to do with the legal, moral, ethical, scientific, and medical responses to a definition of death articulated *through* the brain's activity. It is these "responses" and the form they take that spell out how a rationality of death is articulated. For example, the law's emphasis on agency fits neatly with neuroscience's insistence that consciousness is the seat of human experience and personhood. It seems to me, in any case, that what Agamben, Cadman, or Mbembe argue is that death in contemporary society is being refigured because it has been detached from the traditional western epistemic, moral, and juridical frames that it formerly occupied while being reconnected elsewhere.⁹⁸ We are today living in society where rationalities of death, like those of life, are many and diverse.

The rationality of death that operates on the vegetative subject appears not only to give a definition to the conditions and limits of human consciousness, or as the knowledge to determine the death of an individual. It also the transforms of the vegetative body. The vegetative subject occupies a body that is a space of persistent needs, perpetual dependence and routine practices of care because it is in constant degradation and must be maintained by both technical instruments and tailored medical attention. The relation between the brain and the body enter into a conceptual space of

⁹⁸ Ariès, Philippe. 1981. *The Hour of Our Death*. New York, NY: Alfred A. Knopf.

means and ends in order for a set of procedures and regulations to be enacted that may bring the life of a human being to a close. The death of the vegetative subject is thereby co-extensive with the actions, or inactions, of others who occupy a relation with the vegetative subject. This relationship, as we know, is embellished with the legal and medical procedures of dying and death consensus that forms the bioethical paradigm mediating the relation to death of the vegetative subject. More importantly, however, is the fact that the purpose of this bioethical paradigm is to regulate conduct; to transform the vegetative subject and its care into a domain of death where actions that can be rationalized as the care for a single body. When we hear death, what we must understand or see is less the image of a suffering individual, desiccated corpse, or mortal wound than complex and regulated environments that have stretched death across a growing number of institutional responses, legal disputes, moral qualms, and ethical conduct. Death is not an event, a murder, a decision, a right, or a suicide; it is rather a social, economic, and political activity.

The function of bioethics in the dying and death consensus is to reproduce a rationality of power in relation to the vegetative subject. The reach of this power extends beyond the life and death of the comatose or brain-dead individual. As the Schiavo case demonstrated, this consensus is designed to circulate as an edifying, prescriptive paradigm. It seeks to embed itself across each and every individual in relation to themselves (“How must I make a choice about my death?”), and relation to others (“What must I do if someone I care for becomes vegetative?”). Death is normalized through the consensus in part because it rationalizes a certain experience (death) through a set of

knowledges that can order any kind of relation (economic, political, and private or public). In the last 10 or 15 years, two trends have unfolded in this regard. First, the normative bioethical paradigm has increasingly crystallized into a set of rules and procedures that bind themselves to the authority of the state and the state's measures for intervention and regulation. Second, a greater number of particular relations where the vegetative subject is produced are being linked to this normative paradigm, thereby linking, at one and the same time, each individual to the state through rationalized relations to life and death. In any case, it seems to me this is the way we must approach death to understand the vegetative subject.

Having discussed in more detail how I will engage in a history and critique of life and death through the biopolitical struggles over cognizant life, I turn now to what is the second pillar of this dissertation discussed at length in chapter four: the formation of a governmental apparatus at the end of life, where the relation of the vegetative subject to death is worked out through a rationality of biopower.

4. From the visibility of the vegetative subject to biopower

In chapter one, I emphasized that the visibility of Ms. Schiavo's body and brain were critical to the public contestations over her end-of-life. I want to emphasize that the visibility of the vegetative subject is critical to examining the biopolitical contestations over its life and the ways it figures as a subject along a threshold of death. This section will recover the questions of this visibility in order to reframe them as biopolitical

struggles; as struggles, that is, which will orient us to examine the rationality of biopower in the dying and death apparatus.

The heightened attention to the visibility and signification of the vegetative subject is partly due to the fact that while the body remains animated, the brain's capacity for consciousness is decimated. Though the vegetative body's animation lends itself to discursive frames that allow for it to be read as living, representations of its brain are deployed to argue that not life, but death, is present. It was because the vegetative subject could be framed within many discursive frames of life and death that a contestation over Ms. Schiavo's care was possible. Thus, when it was asked if Ms. Schiavo's behaviors were evidence of mere reflexive movements or of willful actions, neurologists stepped in to authorize a set of readings of the brain and its activity to demonstrate the mere vegetativeness of those behaviors and the absence of mind and autonomy. What we see here is that making sense of Ms. Schiavo's visibility and her behaviors was already to engage in a practice of contesting or reproducing a set of categories and concepts about life and death that had been destabilized.

In chapter one, we also examined how the juxtaposition of Schiavo's body with those of disabled bodies were circulated in media to draw a relation between dependence on technology and the category of personhood. In contestation here was a category of personhood recognized by the state within its juridical edifice of rights and guarantees of freedom, drawing a more explicit connection of the vegetative subject to the lives of others. As a final example, because it makes most acute what is perhaps the central crisis of visibility and signification in the case of the vegetative subject, consider the wide

media circulation of Ms. Schiavo's face. How is the life and death of the vegetative subject linked to (or uncoupled from) cultural, medical, or ethical frameworks such that we can see a human being in the body or the brain of the other? The visibility of the vegetative subject -- whether in the animated body of the vegetative patient; the connection between technical dependence and personhood; or the circulation of the human face -- is not only representative of a biopolitical contestation, it is a space of biopolitical contestation itself.

What is at stake here is how the rationalities of life and death unique to the vegetative subject become biopolitical contestations in part because of the visibility and signification of a body and brain. To be sure, the biopolitical contestations and significations we are interested in are not limited in scope to end-of-life care or the vegetative subject, although they have been some of its major forms. In a different vein, Dumit has studied how representations of the brain as a living organ are deployed in pharmaceutical research, criminology, psychology, and a number of cultural apparatuses where one is called upon to recognize oneself or another person as a particular kind of medical or legal subject.⁹⁹ Today it has become nearly routine to encounter, in the pages of major newspapers and magazines, how our brain is coming to figure more and more centrally in the science of everyday life. Consider, for example, how our encounter with brain injuries during the second Iraq war has not only redefined our notion of trauma but

⁹⁹ Dumit, J. 2003. *Picturing Personhood: Brain Scans and Biomedical Identity*. Princeton, NJ: Princeton University Press. Dumit, J. 2003. "Is it me or my brain? Depression and neuroscientific facts." *Journal of Medical Humanities* 24 (1/2): 35-47. Dumit, J. 1999. "Objective Brains, Prejudicial Images." *Science in Context* 12 (1): 173-201.

also renewed a set of scandals and debates on the poor care for post-war veterans. In sports, brain injuries have become more common, not simply because doctors have discovered new brain injuries, or because sports are more dangerous, but because the rationality of life that unfolds through the brain has become more central in medicine and therapy. We are now at a point in our encounter with the rationality of life embodied in the brain that the most mundane aspects of our everyday social and personal life are being figured as a discourse of human life itself.¹⁰⁰

The rationalities of life and death articulated through the vegetative subject are linked to discursive acts of seeing, watching and observing. And therefore biopolitical contestations over the care, dependence, or end-of-life of the vegetative subject are also contestations over how to see not only the vegetative body itself, or the life of the brain, but the world of relations through which this body is produced, circulated, and made a meaningful object of social and political discourse. To *see* the vegetative subject is not a socially or politically neutral act, but is already to participate in the biopolitical contestations that remain in flux. To engage in practices of signification of the vegetative subject is to participate in the political and social debates at the heart of which lie a number of presuppositions about rights, law, ethics, morality, the limits of economy, the basics of health care, and so on. To see the vegetative subject, and to engage in the discursive practices that reproduce its visibility, is already to engage in the reproduction

¹⁰⁰ Slatalla, Michelle. 2009. "The Endless First Chapter." *The New York Times*, December 7.

of a set of material practices and discursive schemas that have a biopolitics. That is, it is to be engaged in a particular form of biopower.¹⁰¹

Our encounters with the vegetative subject are not limited to those that give them an individual personality through the body or brain itself. As we saw in the Schiavo case, several cultural idioms and systems of representation were used to frame the vegetative subject's *relations with others* (husband, family, caretakers, solidarity, etc.) through narratives of disability, family trauma, moral piety, or the violence of state. What was at

¹⁰¹ It seems to me that we can examine a whole history of cultural encounters with the rationalities of life and death articulated through the relation of the brain and the body. Robert McRuer, for example, has recently shown how, in Clint Eastwood's 2002 hit *Million Dollar Baby* -- the story of a woman boxer who asks her trainer to end her life after she is paralyzed from the neck down by an opponent's cheap shot -- this form of rationality links itself to neoliberal governance in health care and the ethics of end-of-life. James Cameron's *Avatar* represents, in many ways, a vanguard of cultural idioms that seek to articulate a rationality of both life and death in the neural connections that bind an individual the mind of an individual not only to any living substance, but indeed, the essence of life itself. One could examine Julian Schnabel's *The Diving Bell and the Butterfly*, a film based on Jean-Dominique Bauby's novel describing his experience after a stroke that left him "locked-in," as yet another discursive frame in which an entirely different set of anxieties and crises regarding the brain as a figure of life and death is taken up. Contestations over the meaning of life and death in relation to a rationality that links the the brain to the body are not limited to recent films. Joseph Green's 1959 cult classic *The Brain that Wouldn't Die*, a story of a scientist's deranged efforts to reattach his wife's decapitated head to another woman's body, can be seen as a cultural representation embodying a moment when body transplantations and brain death were articulated together in a rationality of life and death. The popularization of zombie films in mainstream film a decade later, notably with films such as G. A. Romero's *Night of the Living Dead* (1968) and Bob Clark's *Children Shouldn't Play with Dead Things* (1972), responds to yet another articulation of the rationality of life / death we find in the vegetative subject, this time in the form of the mindless body hell-bent on reproducing and exploding into a population plague. One can detect in recent zombie films (Danny Boyle's *28 Days Later* (2002), or P. W. S. Anderson's *Resident Evil* (2002)), a shift in cultural idioms of the vegetative subject, emphasizing a medico-military theme where decisions about the life and death of a population are rendered within neoliberal calculations of biosecurity and and pharmaceutical profit-seeking.

stake here was not only the construction of the vegetative subject through the life and death of the brain or the body but in its relation with others who attend to, care and decide for the subject. Nothing could be more orthogonal, for example, than the demonstrations by protestors outside of Ms. Schiavo's hospice who sought to signify Ms. Schiavo's relation with others through the threat of murder (on the one hand), and the news outlets reporting that many end-of-life patients were peacefully ending their lives in scenes of family love, pain management, and personal control and closure (on the other hand).

What is in question therefore is not the discursive organization of the body or brain of the subject, but the actions of others in relation to the the vegetative subject at the intersection of life and death. This is why objects such as Ms. Schiavo's feeding tube were so culturally loaded not only in the legal debates, but in the visual economy of public hysteria over the Schiavo case.¹⁰² The feeding tube came to represent, and configure, a number of anxieties and tensions over how Ms. Schiavo was being cared for (or not being care for) by others as a vegetative subject. Thus, it was the object through which debates unfolded over "who" could do "what" to Ms. Schiavo, with what authority, and with what consequences. In this regard, the visibility and meaning of the vegetative subject was a medium in which the actions of others could be regulated, policed, controlled, authorized, or punished. We could also refer to, for example, Ms. Schiavo's fMRI brain scans or her taped examinations by neurologists as performing an enormous

¹⁰²Anderson, Patrick. 2005. "On Feeding Tubes." *The Drama Review* 49 (3): 5-9. Staiger, J. 2006. "The Cutting Edge: Emergencies in Visual Culture." *Jump Cut* 48.

amount of work in contesting and normalizing how this vegetative subject was to be the object of the conduct of others.

The visibility of the vegetative subject, however, extends beyond its figuration of life and death or the regulation of immediate conduct by others. As we saw, the vegetative subject is given, in contemporary discourse, a *collective character*. For example, economists rendered the choices faced at the end-of-life, including those choices made on behalf of incompetent persons, in a register of economic rationality: what, for example, are the costs to health care insurance when one requires life-sustaining procedures, how are those costs distributed per capita, and what does it mean in relation to, for example, premium costs? Or, from a different angle, how can we make clear the conflicts over whether or not to extend the life of an individual within the language of interest maximization? Alternatively, ethicists sometimes framed end-of-life in terms of extraordinary care and medical futility, both of which have a complex visual rhetoric that, at least in the case of Schiavo, found new cultural forms. Others sought to argue that the crisis at hand was in balancing moral principles and pragmatic ethics, a balance not limited to the care of the vegetative subject but at play as well in a number of other medical-legal conflicts (e.g., in stem cell research or abortion debates).

The problem of caring for the vegetative subject, how we understand its dependence on the actions of others, and the way in which the end-of-life is an experience each and every individual will face, all indicate that the meaning-making practices that accompany the vegetative subject are not limited to an individual body or a form of life and death. Thus, we might ask, as a way of sharpening this point, how our

presuppositions about basic rights might be shifting in the debates over the vegetative subject? How is an economic rationality of increasing health care costs expanding over a number of social affairs, such as those rendered complicated by the vegetative subject? How are ethics and morals being reconfigured today through crises of personhood and medical conduct in phenomena such as the vegetative subject? In each of these cases, systems of representation are deployed to “make sense” of the vegetative subject as part and parcel of a larger series of social, economic, and political contestations.

In this regard, the vegetative subject is a space in which different signifying practices are negotiated and contested within a larger collective frame. Tracing the work of the vegetative subject in contemporary American society requires showing that the cultural frames used to render the vegetative body visible and intelligible extend *from* the condition of the vegetative body *to* the social, moral, and economic frameworks that give it a collective character. For the cultural idioms deployed in the crises of the vegetative subject are those that we also find in the context of reproductive rights and abortion, stem cell research, health care reform, or the humanism of the neurosciences. These idioms are deployed to rationalize a crisis of meaning by trying to produce the vegetative subject as a particular kind of subject in relation to others.

What is interesting about the public visibility and collective contestations over the meaning of the vegetative subject is that they correspond to a certain crisis in contemporary moral thought or a situation in which traditional forms by which an individual can be secured as a moral subject no longer correspond to the social and economic conditions of lived experience. Just as the “I” of individual autonomy is

possible only within a set of cultural or social norms, so the dissolution of those norms entails a dispossession of the individual of the contexts in which he or she may articulate himself or herself as an “I.” This problem has recently been confronted by Judith Butler in a series of books on war, grief and terror.¹⁰³ What I want to foreground in this discussion is her claim that ethical self-formation (how I constitute myself as autonomous and ethical “I”) is tied to the recognition of the other; i.e., the question “who are you?” Drawing on a tradition of commentary on Hegel’s “struggle for recognition,” including the work of Levinas and Lacan, Butler tries to reconstruct how our response to the moral crisis she describes may not be to develop new normative and moral principles, but to develop discursive techniques through which individuals may occupy provisional, conditional, yet substantive “scenes of recognition” as “scenes of moral judgment.” Notwithstanding other lines of commentary on the struggle for recognition,¹⁰⁴ what interests me in Butler’s discussion are two things: 1/ that discursive resources of visibility, encounter, address, and response, are also questions of media, the image, and what can be seen and heard, 2/ that ethical struggles are struggles to recognize and be recognized by others.

¹⁰³ Butler, Judith. 2009. *Frames of War: When is Life Grievable?* Brooklyn, NY: Verso. Butler, Judith. 2005. *Giving an Account of Oneself*. Bronx, NY: Fordham University Press. Butler, Judith. 2006. *Precarious Life: The Power of Mourning and Violence*. Brooklyn, NY: Verso.

¹⁰⁴ Honneth, Axel and Nancy Fraser. 2003. *Redistribution or Recognition: A Political-Philosophical Exchange*. Brooklyn, NY: Verso. Honneth, Axel. 1996. *The Struggle for Recognition: The Moral Grammar of Social Conflicts*. Cambridge, MA: MIT Press. Taylor, Charles. 1994. *Multiculturalism: Examining The Politics of Recognition*. Princeton, NJ: Princeton University Press.

The concept of a scene of recognition is an important analytical device in the case of the vegetative subject, for the crisis of the vegetative subject in contemporary society is one that links conduct (“what do we do?”) to the problem of seeing and recognizing the other (“is there a there there?”), so that the two become essentially the same across the discursive and normative struggles to render the vegetative subject intelligible. This analytical device lets us examine the link between a rationality of decision-making, bioethics, and contemporary scientific arguments about the nature of consciousness and, in a different vein, the link between the cultural repertoire of conservative-religious groups, disability rights groups, and deliberations over how to formulate a end-of-life right. Who is the individual who occupies a relation to the threshold between life and death, how can we recognize the fact of their existence there, and how should others act in relation to this individual who is not in a position to act themselves? It could be that processes of recognition unfold through a relation of needs and their provision, costs and finance, suffering and the desire to alleviate it, and so on. In any case, the different relations in which the vegetative subject appears across contemporary American culture are not only ordered through rationalities of life and death, but also visibility and recognition. Again, the function of these rationalities is not only, upon the space of a body, to produce a vegetative subject; it is also to regulate how we organize ourselves as ethical subjects in relation to the vegetative subject, and how we recognize others as human beings with whom we have a relation.

Biopolitical struggles, as Foucault began to develop the notion later in his career, are struggles not only of subjectification, but of ethical self-constitution. This insight

dawned on Foucault when, after his turn to governmentality, he recognized that power relations in modernity operate by asking us to govern ourselves as “free” individuals -- they operate, in other words, through our notions of liberty.¹⁰⁵ To act freely as an individual meant to control how one cares for oneself and constitutes oneself as an ethical subject; that is, to take oneself as an object of ethical construction was co-extensive with a modern notion of freedom. What Foucault missed, however, is that ethical self-constitution is linked with our capacity to encounter and recognize “the other,” and that the traditions and norms that once structured the procedures of recognition in western society were no longer operable in lived-experience.¹⁰⁶ He missed, in short, the relational conditions of alterity through which the self, as an ethical practice, became a norm of modern relation to freedom. The great advantage of Foucault’s work, however, remains

¹⁰⁵ Foucault, Michel. 2000. “The Subject and Power.” Pp. 326-348 in *Power*, edited by Hurley, Robert, James D. Faubion, and Paul Rabinow. New York: New Press. Foucault, Michel. 2000. “For an Ethic of Discomfort.” Pp. 443-448 in *Power*, edited by Hurley, Robert, James D. Faubion, and Paul Rabinow. New York, NY: New Press. Foucault, Michel. 2006. “On the Genealogy of Ethics: An Overview of Work in Progress.” Pp. 253-280 in *Ethics*, edited by Paul Rabinow. New York, NY: New Press.

¹⁰⁶ In any human society, there exist procedures, rules or rituals that facilitate the processes by which individuals who encounter each other may recognize each other as human beings -- i.e., may exist for each other in a relation that compels respect and prohibits violence. The “process of recognition” is today, however, no longer tied to traditional rituals, symbolic ceremonial practices, or highly regulated procedures of reciprocal exchange. What the vegetative subject indicates is that today the “processes of recognition” are increasingly governed by paradigms of management, tied to a body of needs and services, costs and financing -- in short, what we could call a certain type of economic rationality. But this is not all. The dominant bioethical paradigm expresses a particular component of this rationality: the centrality of “agency” and “self-determination” within the frames that order processes of recognition (and compel others to constitute themselves, for example, as “ethical” subjects in relation to the vegetative subject).

that he always turned the constitution of oneself *as a* subject, through visibility and signification, as a problem of power or, in this case, biopower.

To step back for a moment so as to summarize and clarify: the problem of visibility in the formation of the vegetative subject as a problem of biopower is threefold. First, a number of representational systems are deployed over a rationality of life and death in order to produce and circulate a vegetative subject within various economic, social, cultural, and legal contexts. Second, various discursive frames are deployed not simply to make sense of the vegetative subject *per se*, but to make sense of the vegetative subject in relation to others who are in a position to intervene and act on the subject itself. This elevates the crisis of the vegetative subject to the problem of conduct and therefore elevates the crises of meaning in the vegetative subject to the level of collective life, as moral, social, economic, and political problems. This is why we are going to shift, in chapter four, to the register of power. We will think through, for example, the economic frames of needs, costs, benefits, and financing that are deployed to make sense of the vegetative subject as a problem of social provision. We will examine medical diagnostic techniques and therapeutic programs as problems of making the vegetative subject intelligible in medical practices.

Finally, the visibility of the vegetative body foregrounds the processes of recognition through which we recognize (or fail to recognize) living beings as human persons in relation to ourselves. Thus the vegetative subject only exists insofar as its visibility positions us (or fails to position us) as particular kinds of ethical subjects (who is the person there, what am I obligated to do, and how do I know that I am obligated and

authorized to do it?). This process of relationality needs to be understood as the operation of biopower over the vegetative subject. The struggle over the meaning of the vegetative subject entails therefore a struggle over representational frames of needs and dependence which in turn mediate the procedures that will constitute relationality. What the existence of the vegetative subject suggests is that we are living in a society where the management and regulation of our lives through particular rules of conduct are, at the same time, governing how we can or cannot exist for others as ethical subjects.

In order to raise a more general set of questions about the biopolitics of the vegetative body in contemporary society, I emphasized that it is not an isolated body on the fringe of our social or ethical institutions, but a particular kind of subject at the heart of contemporary society. The crisis of the vegetative subject is that it is a site of biopolitical contestation mediated by the dying and death consensus. I described how this subject emerges at the intersection between a contemporary rationality of life and death and cultural frameworks of meaning. I problematized the vegetative subject by situating its formation within particular kinds of concrete relations (e.g., relations of medical care, needs, and economic provision) distributed across a number of discourses (e.g., neuroscience, public health, disability rights) and institutions (e.g., the palliative care center, the family, or public space). It was here that the *conduct* of individuals, as the work of a rationality of biopower, came to light. What I think is striking is the incredible reach of this biopower through the vegetative subject, not simply because end-of-life issues presumably affect each and every individual, but because the problem posed by the life and death of the subject could be articulated in relation to nearly all

major activities in contemporary social life: law; domestic economy; the provision of health care; the intimacy of the family; the expanding reach of bioethics as ethics thought *per se*; and public media.

In the rest of the chapter, I engage in an exegesis of a several of Foucault's texts to develop two arguments. Each is connected to the other. The first refers to genealogy, a term I have been using in this chapter. Genealogy is an historical method that reconstructs the birth of a discourse and form of power by tracing the epistemic shifts which render a body as a subject. In our case, we will be tracing the rationalities of life and death that give birth to the vegetative subject. The second argument is new to the biopolitical literature. Its aim is to render acute the biopower that operates over the vegetative body as a *rationality of government*. Indeed, my aim is to set the conceptual and methodological grounds for chapter four, where I will show that the main function of the dying and death *apparatus* is to produce a space of freedom at the end of life, through the relation of the vegetative subject with death. Indeed, what is most specific to the biopower of the dying and death apparatus is that the space of freedom it seeks to secure is co-extensive with processes of subjectification *per se*. That is, the particular form of "freedom" this apparatus attempts to secure only reaches as far as it is able to produce a human subject. But more on this shortly

5. Genealogy and the body

During the early 1970s, Michel Foucault turned his attention away from the "archaeological" projects on illness and madness and gradually developed what he called

a “genealogy” of the modern subject. For a long time, one could characterize Foucault’s work as historicizing, and thereby unmasking, the ways in the modern “will to knowledge” produced and activated itself in certain discursive acts of “founding.” Foucault, in his book on the clinic, shows that the emergence of medical perception and clinical experience in early modernity buttressed the production of a discourse -- a way of speaking, seeing, and knowing -- that did not finally discover the truth of the human body, but one that cut it open, submitted its interior geography to an anatomy of organ and tissue functions, a catalogue of symptoms, signs, and individual cases, and mobilized the authority of a clinician’s intervention. The clinic, wrote Foucault, is a form of knowledge and experience that “opens up the concrete individual to the language of rationality, that major event in the relationship of man to himself and of language to things.”¹⁰⁷ Archaeology reveals that man’s development of a form of knowledge (savoir) about himself is co-extensive with the deployment of a discourse (“the statable”) produced by a reciprocal engagement between a “domain of its experience and the structure of its rationality.”¹⁰⁸ The sciences of Man, in short, were not born from a final revelation of truth by the application of Reason, but instead from those discourses that connected a certain limit-experience (e.g., disease, illness) with a particular language of

¹⁰⁷ Foucault, Michel. 1994 (1973). *The Birth of the Clinic: An Archaeology of Medical Perception*. New York, NY: Vintage.

¹⁰⁸ *Ibid.* Pg. xv.

rationality (e.g., symptoms, signs, tissues, anatomy, etc.).¹⁰⁹ Together, these formed a “concrete a priori” (e.g., of illness, madness, economics, linguistics, etc) that the historian can recover, order, recombine, and articulate as the historical conditions for the possibility of a certain kind of knowledge and the production of human beings as particular kinds of subjects.

Genealogy jettisons from historical research the goal of recovering an historical a priori as a way of describing the relations of truth and subjectivity in the modern society. But what use of history is to be made instead, and what are we to make of the subject? In a well-known essay deeply indebted to Nietzsche, Foucault takes critical aim at what he calls the dominant “historical sense” in the humanities.¹¹⁰ Must we follow an ethos of historical research which argues for a history that always “reintroduces a suprahistorical perspective,” claiming that “all that precedes it implies the end of time, a completed development,” and whose function is “to compose the finally reduced diversity of time

¹⁰⁹ The development of this style of thought by Foucault, and indeed the archaeological method, can be seen as early as 1963 when he published his “complementary thesis” on Kant’s *Anthropology*. In Kant, Foucault sees a particular kind of struggle between the transcendental regime of the *Critiques* and the attempt -- as he articulated, for example, in his short essay called “What is Enlightenment?” -- by Kant to situate knowledge within a reflection on the *present*; i.e., on what man “is” today, in the ways he is “doing, thinking and speaking.” In short, the great turn in the deployment of Western society’s “will to knowledge” is that man inverts his former (Greek, Roman, Christian) humanism (which held that the human subject exists outside of, and prior to, worldly affairs), and instead sought to produce his knowledge within the limits of his finite experience. This “limit point” Foucault develops into a methodological precept, what he calls the “analytic of finitude.” Foucault, Michel. 2008. *Introduction to Kant’s Anthropology*. Los Angeles, CA: Semiotext(e). Foucault, Michel. 1984. “What is Enlightenment?” Pp. 32-50 in *The Foucault Reader*, edited by Paul Rabinow. New York, NY: Pantheon.

¹¹⁰ Foucault, Michel. 1984. “Nietzsche, Genealogy, History.” Pp. 76-100 in *The Foucault Reader*, edited by Paul Rabinow. New York, NY: Pantheon. Pg. 87.

into a totality fully closed upon itself?”¹¹¹ Must we make history, moreover, a “handmaiden” to metaphysics and its claims to the “unity of being?” Why is it that historical knowledge is used to denote man’s progress, emancipation, or liberation from power? Why must the development of science be understood as the release of man’s capacity for reason? For Foucault (and Nietzsche), nothing was more sterile than to follow this line of thought. “Everything considered immortal in man” must be placed, Foucault argues, within “a process of development.” We must make a “genealogical use” of history. But what does this mean?

The task of genealogy is not only to develop a historical sense, or a use of history, as a weapon to unmask the metaphysical or “suprahistorical” aspirations of historical inquiry. The genealogical use of historical knowledge must cut the preconceptions underpinning a “metaphysics” of the human subject. In this article, Foucault proposes to recover from Nietzsche two terms -- “descent” and “emergence” -- which function as weapons in the genealogical arsenal by which to recover from history the ways human make themselves subjects. Rather than consider the “origin of values,” for example, a “genealogy of values” would demonstrate that values (or morals, asceticism, etc.) emerge on a particular “stage of forces,” in events that correspond to a “series of subjugations,” defined by relationships of domination, confrontation, and struggle. “The isolation of different points of emergence,” wrote Foucault, “results from substitutions, displacements, disguised conquests, ... or systematic reversals” of prior relationships.

¹¹¹ Foucault, Michel. 1984. “Nietzsche, Genealogy, History.” Pp. 76-100 in *The Foucault Reader*, edited by Paul Rabinow. New York, NY: Pantheon. Pg. 87.

One subjugation displaces another; relations are substituted, struggles are renewed and transformed. It is true, of course, that points of emergence endure in human affairs or, as Foucault prefers to call them, “descent,” like the stock or breed of a human subject. But through what? And therefore to what should the genealogical method attend? Let us look, Foucault says, to the body; for the body is the “domain of Herkunft [descent].” The body, for Foucault, is a space through which “numberless beginnings” of subjugation are enacted, performed, commanded, and solidified as so many different types of subjects inscribed in the body’s capacity, for example, for pain, suffering, illness, or disease. The attempts by man to know himself and to produce himself as a subject are written, historically, on the manipulation and experience of his body and the bodies of others. The body, in short, “is the inscribed surface of events, the locus of a dissociated self,” a multiplicity of contingent identities, but it is also the material of endless re-subjectifications. “Genealogy,” as an analysis of “descent,” has as its task to “expose a body totally imprinted by history.”¹¹²

Genealogy was the method necessary to produce *Discipline and Punish*. What is the “prison” in modernity? Foucault canvases the archive and follows the body of the condemned, the criminal, the punished, and the corrected to discover the prison’s multiple points of emergence, which he also finds in the school and other institutions. We discover that the “will to knowledge” could not help itself, at a specific moment in early modernity, from developing a form of knowledge to observe, surveil, examine, measure, normalize, and instruct an expanding range of bodies, including that of the

¹¹² *Ibid.* Pg. 83.

criminal to be punished. This knowledge developed parallel institutional techniques across society by which human beings could inscribe themselves as subjects on their body, not simply to punish it, but to correct, rehabilitate, teach and reform it -- to normalize it. Reason sought to achieve a series of ends by developing a form of truth that asked individuals to recognize themselves, and others, as particular kinds of subjects who needed normalization. Foucault called this form of knowledge and its mechanism of power “discipline.” It embeds a knowledge of the soul, and the desire for normality, within a relationship between the abnormal subject requiring correction and the author guiding its performance.

The body and the brain, and the specific relation between them, are spaces in which emerge and descend the vegetative subject. One can trace, in my view, a genealogy of points of emergence of the “vegetative subject” -- in neurosurgery, in cybernetics, in the cognitive sciences, in organ transplantation. It is in these domains that human beings sought to inscribe and recognize themselves as subjects; to articulate their experiences of health, disease, technical potential, or the capacity to harness life as a knowledge of human beings itself. The vegetative subject is not then limited to the vegetative patient. The vegetative subject is a fragmented historical reality, a recurring and multiple figure, one routinely linked back to man’s “will to knowledge” of himself and connected to the activities that institutionalize discursive practices in medicine, science, or philosophy (among other discourses). Thus, we would be mistaken to assume that the our encounter with the “vegetative subject” is fixed, singular, or settled. This subject exists in a plurality of relationships, organized by a form of knowledge of the

living body and brain, applied to medical care, the treatment of diseases, a deciphering of the mental capacities of individuals, or the technical capacity to sustain bodily life through organ transplantation. We must develop a historical knowledge of the body and living brain as a space not only in which the vegetative subject emerges, but in which efforts by human beings produce themselves as subjects through which mechanisms of power / knowledge are enchained into a greater number of social relationships.

6. The Biopower Hypothesis

In his lectures at the Collège de France during the genealogical years, Foucault repeatedly turned to the question of power. A pivotal turn in his study of the mechanisms of power / knowledge in the mid-1970s was his decision to study a new theme and experience: sexuality. In a chapter titled “Right of Death and Power over Life” at the end of the first volume of *The History of Sexuality*, Foucault presented a set of arguments that, over the last 30 years, have been a point of departure for a whole literature not only on the functioning of the modern state, but more specifically on particular mechanisms of power / knowledge in modern society that allow for the state to reproduce itself.¹¹³ These arguments rely on the claim that early modernity can be characterized by “parallel shifts” in the “power over life and death” exercised on the body and in social relations (i.e., on individuals living in society). According to this thesis, there has been a qualitative and irrevocable change in the way power is exercised in society as well as the structures that

¹¹³ Foucault, Michel. 1978 (1976). *The History of Sexuality, vol.1: an Introduction*. New York, NY: Vintage.

make that exercise possible.¹¹⁴ The categories or concepts of “life” and “death” in this thesis are central. They indicate the shifting object and aim of these mechanisms of power, as well as their field of application and the conditions for their existence. The crucial aspect of the argument is that, historically, the state emerged at least partially through mechanisms of power / knowledge applied to specific kinds of bodies and subjects at the “level of life” rather than as was previously the case, at the “level of death.” But what is meant here by the terms “life,” “death,” and “power?” Let us examine the hypothesis, which Foucault called “bio-power,” more closely, and its relation to the project I propose in this dissertation.

For centuries, Foucault argues, the mechanisms of power in western societies corresponded to the juridical edifice of sovereignty, so that individuals in a social body were governed as legal subjects. Sovereign power was coextensive with the sovereign’s will and his body; both function as the symbolic legal authority and the space of criminal transgression. Thus, an attack on the laws was an attack on the sovereign himself.¹¹⁵ The rejoinder to such attacks, and the central form of power belonging to the sovereign, was the right of death, the right to kill with impunity. The right of death was generally expressed through a variety of procedures that took the form of arbitrary seizure (e.g., of

¹¹⁴ Foucault always insisted that his excursus into power was only a means of getting at the relation between subject and truth. We know the importance of visibility and signification in his early books, as well as the analyses of production and economy in his critique of the history of the human sciences.

¹¹⁵ The figure who holds sovereign power has shifted over the history of western society. Although the most recent example is perhaps the figure of the Christian monarch, one could also understand that this form of power was centralized in the head of the Greek household (*pateras*), the Roman *pater*, the medieval Lord, etc.

wealth and goods), the application of harsh levies and taxes, and various other means of exposure to death (e.g., conscription to war). The exercise of a right over death unfolded in a symbolics of blood, ceremonially displayed in public by the “murderous splendor” Foucault contrasted with the disciplinary power he traced in *Discipline and Punish*. If sovereign power had any effect over individual life, then, it was as the indirect consequence of its right over death: “the sovereign exercised his right to life only by exercising his right to kill.”¹¹⁶ The right of life held by the sovereign was essentially one of letting live, while the right of the sovereign over death took the form of mechanisms that subtracted life or applied the sword, itself a major (if not the central) form by which the sovereign ruled and governed. To be sure, sovereignty and the right of death were not the only forms of power in pre-modern western societies, but in terms of power exercised at the level of “life,” death and law were dominant.

The emergence of the modern state and the mechanisms of power that define it correspond, for Foucault, with an inversion of the power over life and death in the relations between individuals and the social body. Although it was not yet clear to Foucault in this chapter of *The History of Sexuality*, biopower orients us, he would later argue, to a different intelligibility of modern subjectivity. In any case, Foucault argues that if the modern “state” exists, it is due to a change in the production of subjectivity. If we speak about “power mechanisms” of the state, it is because these mechanisms are embedded in social relations, where individuals are not “commanded,” but rather are

¹¹⁶ Foucault, Michel. 1978 (1976). *The History of Sexuality, vol.1: an Introduction*. New York, NY: Vintage. Pg. 136.

produced through the life of their bodies. To be sure, Foucault had already charted how, in the modern sciences of medicine and the humanities (illness, disease, insanity, anatomy, language, biology, economics) new forms of knowledge had emerged to produce the rationality of Man as a category within the cultural and social context of a new set of scientific and discursive activities. What was new, for Foucault, as he canvassed earlier modern texts on the state, is that these discursive productions of human beings as living subjects found an intelligibility at the level of the state's activity. In other words, the way in which humans were being produced as subjects allowed them to be linked -- in the regulation of prices of bread, the mobilization of large armies, the state's production of wealth, and so on -- to the activity of the state per se. Thus the "state" is not emancipated from society as a normative juridical paradigm or superstructure. The state exists insofar as individuals are produced as subjects that may not only produce a series of micro, disciplinary practices, but that may also link them to the existence of a collective entity. The understanding Foucault brings to fruition in the first volume of *Sexuality* is that these forms of knowledge are crucial to the totalizing aspects of power, not just the individualizing aspects of, for example, discipline.

The biopower hypothesis thus claims that mechanisms of power / knowledge now extend over individuals and the social body not just as juridical entities, but as biological phenomena which pose problems to state's activity. What must be known by a science of the state is how to construct the social body as a field of control over the biological aspects of a population. The responses of the state, its mechanisms of power, are "situated and exercised at the level of life, the species, the race, and the large-scale

phenomena of population.”¹¹⁷ In other words, for Foucault, the question of the relation between the state, society, and individuals in early modernity was “no longer a matter of bringing death into the field of sovereignty,” but “of distributing the living in the domain of value and utility.”¹¹⁸ Power / knowledge develops a new discourse of state activity whose targets are the life of the social body and the administration of individual life. Biopower explains, for example, how the state measures, qualifies, and appraises its economy through both a knowledge of the aggregate forces of labor and mechanisms of power that manage the living aspects of a working population -- its sanitation, reproduction, and health. The law and rights, according to Foucault, become tools that implement a norm of behavior distributed as both averages across a population, and as the ends of individual discipline. “A normalizing society,” argues Foucault, “is the historical outcome of a technology of power centered on life.”¹¹⁹ The right of death thus becomes a residual of mechanisms of power / knowledge “bent on generating forces, making them grow, and ordering them, rather than ... impeding them ... and destroying them.” In fact, says Foucault, modern technologies of power / knowledge have never “ceased to turn away from death.”¹²⁰ The “death that was based on the right of the

¹¹⁷ Foucault, Michel. 1978 (1976). *The History of Sexuality, vol.1: an Introduction*. New York, NY: Vintage. Pg. 137.

¹¹⁸ *Ibid.* Pg. 144.

¹¹⁹ *Ibid.* Pg. 144.

¹²⁰ *Ibid.* Pg. 136.

sovereign is now manifested as simply the reverse of the right of the social body to ensure, maintain, or develop its life.”¹²¹

At the time of this chapter’s publication, it seemed to Foucault that the biopower hypothesis was a way of integrating two forms of power / knowledge, one of which he had been working on since the early 1970s. Discipline, which in *The History of Sexuality vol. I* he renamed the “anatomy-politics of the human body,” was the first. It centered on the body as machine, tying procedures of power that correct individual behavior with the desire for normality. The second, new, form of power focused on the “species body” of the individual, a body “imbued with the mechanics of life and serving as the basis of biological processes.” In discipline, we have an individualizing form of power / knowledge, while in biopower we have a totalizing form of power / knowledge. To be sure, the species-body of the subject did not belong to the historicity of man, but rather to the biology of race and population. From Foucault’s point of view, however, knowledge of the species-body was necessary for power / knowledge to both make sense of the administration of a whole population and to enact procedures to control and harness its potential energies. Biopower emerges as the response to an important problem posed to the formation of the modern state: how do you administer and rule society through its population? How must a state govern a population, what must it know about this population in order to govern it, and what instruments must it develop to do so?

These questions were major to all of the early modern political theorists; they mark, for example, the beginning of political economy and public health as discourses of

¹²¹ *Ibid.* Pg. 136.

the state. The discipline of the body, and the regulation of the population, thus constituted “two poles” on which “the power over life was deployed.” The police, the clinic, and the school developed as institutions organized by a form of power that simultaneously attends to the “administration of bodies and the calculated management of life,” condensing “the diverse techniques for achieving the subjugation of bodies and the control of populations.”¹²² “The fact of living,” he argued, “was no longer an inaccessible substrate that only emerged from time to time.” It now “resided,” insofar as it could be known and rendered intelligible by the state, in the lives of individual subjects and their aggregation into the social body. The emergence of the state, and the modern social institutions that it sought to govern, along with the emergence of capitalism or secularism, together became newly intelligible and actionable because “life” had now “passed into knowledge’s field of control and power’s sphere of intervention.”¹²³

A common misperception is that Foucault argues that biopower is only concerned with power / knowledges that “make life grow.” Even though Foucault is careful to explain how, in fact, genocidal actions of the state are intensified through a politics of life, it is commonly assumed that he argues the relation of power to death fades away. But what Foucault argues is that the relations of power / knowledge that organize death no longer operate in the “field of sovereignty.” This point is important, for it leaves open for argument how the power over death may emerge in a different form. Hence “death” may emerge, biopolitically, in other “fields” and relations of power. Indeed, one would

¹²² *Ibid.* Pg. 140.

¹²³ *Ibid.* Pg. 142.

expect that, as man's organization of himself expands through "life," so the encounters with "death" multiply in form and number. We must jettison our inherited assumptions that frame death as, for example, "killing," "murder," or the terminus of legitimate or illegitimate violence. In the vegetative subject, for example, death appears in a field of medical-technical and juridical thresholds; the failure of neural mechanisms to learn and adapt; in the logic of signification through which we recognize, or fail to recognize, the other as a human being; or, finally, through the ever-growing deployment of ethical norms across individual and collective conduct over life. These fields of "power over death" exist outside of relations of power characterized by discipline, sovereignty, the historical formation of the "state," or Christian confession (a form of power Foucault examined near the end of his life).

7. The Biopower Problematization

Although Foucault's studies concerned the emergence of the state, we must remember that "biopower" was not limited to the formation of the "state" as such. Foucault's biopower hypothesis made possible a way of describing particular phenomena such as capitalism and modern social institutions and their connection with the regulation of individuals' conduct. The advantage of "biopower," and the attention to the mechanisms of power / knowledge at the level of "life," is that it worked both "top-down" and "bottom-up," linking the management and the regulation of individual life or death with the problems that attend the government of a social body as a collective entity. That said, we would be mistaken to conclude that biopower was co-extensive with the

state, or that it *caused* the clinic, capitalism, or state racism. Biopower, instead, asks us to consider these institutions and entities at the intersection between the knowledge of “life” and the problems of *government*, a series of relations that re-emerge again and again. This is the approach, or method, that Foucault was developing when he drew attention to “the entry of life into history,” the “entry of phenomena peculiar to the life of the human species into the order of knowledge and power,” articulated through various “concrete arrangements,” and “practices.”¹²⁴ If we speak about these forms of power and knowledge as biopower, we must recover the various discourses about “life” and “death” in the experiences that “brought life and its mechanisms into the realm of explicit calculations and made knowledge-power an agent of transformation of human life.”¹²⁵

Thus, although Foucault’s biopower hypothesis aimed at producing a concrete historical study of the state, it also, in my view, proposes a general “problematic” in the study of the production of subjectivity in relation to “life” and “death.” Foucault argued

¹²⁴ Béatrice Han, in her wonderful book on Foucault, argues that the concept of “practice” in Foucault’s opus is much more nuanced than is generally thought. In part, this term developed out of particular necessities that were both theoretical and methodological. Theoretical because the heavy emphasis placed by Foucault on the distinctions between the discursive and non-discursive required a material concept to bridge divide between the two. Methodological because, in his inquiries into the formation of the human subject in modernity, Foucault needed to overcome a basic methodological distinction between the transcendental and the historical. In the 1970s, the term “practice” was behind the more noted and foregrounded concept of discipline, but was nonetheless critical. In the late 1970s and the early 1980s, when the concept of “governmentality” basically replaced the concept of power / knowledge, so too was “practice” abandoned and replaced with the concept of a “apparatus” (*dispositif*). On this latter concept, Agamben has recently written a book. Agamben, Giorgio. 2009. “*What is an apparatus?*” and *Other Essays*. Stanford, CA: Stanford University Press.

¹²⁵ *Ibid.* Pg. 143.

that the emergence of biopower -- the forms of knowledge about the social body it sought to govern, and the forms of power that it used to intervene in the social body in order to govern it -- developed between the interiority of a human history (in which Man could recognize himself through the institutions he had produced) and an exteriority, in this case his biology, his “species-being.”¹²⁶ The “question of man,” for Foucault, was not only coextensive with the formation of the State. Both emerged at the same intersection, an intersection where “man” was both individual and “total,” where he was “in [a] dual position ... that placed [him] at the same time outside history, in its biological environment, and inside human historicity, penetrated by the latter’s techniques of knowledge and power.”¹²⁷ But this is not Foucault working from the same assumptions as Natural Law regarding the state of nature, contract, and civil society. Foucault would argue that we ought to see this form of thought as an effect of a *biopoliticization* of the State and its political technologies, and the novelty of a form of power that is at once “individualizing and totalizing,” what he would later invoke as the “political technologies of individuals.” “The state’s power,” Foucault argued in 1982, is both an individualizing

¹²⁶ Thus famine, for example, was no longer a function of the whims of nature, plague, and disease, but a function of poor years of economic production, the volatility of prices, and the maldistribution of goods. Race was no longer limited in its intelligibility to the interaction and evolutionary development of the animal species, but drawn into relations of historical conflict and the progressive technological development inaugurated by the Enlightenment. Genes and genomics, more recently, are not simply inquiries into the history of animal development or even agriculture, but corresponded to material realities and potentialities of human beings, in either emotional, psychological or cognitive registers, then mapped onto patterns of crimes, histories of abuse, educational aptitude, and a distribution of health resources.

¹²⁷ Foucault, Michel. 1990. *The History of Sexuality, vol. 1: an Introduction*. New York, NY: Vintage. Pg. 143.

and a totalizing form of power,” where the “same political structures” are both “individualization techniques and ... totalization procedures.”¹²⁸

Still, not all life and death, or relations of power, have slipped into biopower.¹²⁹ Certainly, biopower attends to the *worldly activities* of man at the intersection of biology and history, but there is not a field of “species-being” that modernity has somehow been progressively exhausting. The exteriority of biology, like the excavation of the will to knowledge, is infinite. Their intersection through power and social relations expresses a *general form of reflection*. “It is not that life has been totally integrated into techniques that govern and administer it,” Foucault argued, but that we have entered a period of reason where, from the point of view power, life “constantly escapes” reason’s efforts of control. Thus biopower allows the genealogist to grasp how “life and living” have become an expansive horizon for the development of political rationalities tying the body to collective entities. It signals a way of knowing and seeing “human beings” as “social subjects” whose ways of living and activities are also objects of “state” interest and

¹²⁸ Foucault, Michel. 1982. “The Subject and Power.” Pp. 208-228 in *Michel Foucault: Beyond Structuralism and Hermeneutics*, edited by Dreyfus, Hubert L., and Paul Rabinow. Chicago, IL: Chicago University Press. Pg. 212.

¹²⁹ Nor was Foucault trying to define “life” and “living” in the modern era, or define the form of power specific to those categories. Instead he sought to recognize in these categories a particular problematization of truth, the subject and power that is specific to modernity. This relationship has been taken up by various discourses time and time again throughout modernity. One need only mention terms such as race and state racisms, heredity and eugenics, or epidemics and sterilization to conjure the image of the intersection between “biology” as an exteriority to man that is taken up by the state as a space of intelligibility for its own strategies, mechanisms, and and tactics of administration and legislation.

regulation. “If the question of man was raised” in modernity, Foucault finally clarifies, “the reason for this is to be sought in the new mode of relation between history and life.”

8. From Biopower, through Governmentality

In a short paper prepared in 1982, Foucault reflected on his intellectual program of twenty years and the excursus into power. “My objective,” he explained, “has been to create a history of the different modes by which, in our culture, human beings are made subjects.”¹³⁰ Power represented a turn for Foucault in his inquiry of the “modes of objectification that transform human beings into subjects.” Biopower, in particular, had oriented his attention to the growing extension and transformation of power’s objectifying practices through the category of life and death, and the social, economic, and political implications in modernity of the capacity for human beings to live and die. The problem of the “state” had indeed been central to his work on biopower, but he was careful to insist that they were not equivalent. “It was necessary,” Foucault retrospectively noted, “to expand the dimensions of a definition of power if one wanted to use this definition in studying the objectivizing of the subject.”¹³¹

As he had done so many times before, Foucault resisted the temptation to synthesize his previous work, and decided instead to reread the early modern texts. From the mid-to-late 70s, he turned to “government” and what he called “governmental

¹³⁰ Foucault, Michel. 1982. “The Subject and Power.” Pp. 208-228 in *Michel Foucault: Beyond Structuralism and Hermeneutics*, edited by Dreyfus, Hubert L., and Paul Rabinow. Chicago, IL: Chicago University Press. Pg. 208.

¹³¹ *Ibid.* Pg. 209.

rationality,” or simply *governmentality*.¹³² By governmentality, he did not refer to the political institutions of the liberal state -- its tripartite division of power; taxation and its system of finance; a bill of rights; or its system of political representation -- but to the explosion in early modernity of treatises seeking to apply reason to the “activity of governing.” Foucault is under no misperceptions that this is the first time western society asks itself if there is a reason of government (it is not). But what interests him is that modern reflections on the “art of government” asked how it was possible to unify all the activities of government distributed in society (the government of the sick, the family, the church, etc) into the purview of a internal rationality of the state, informed by a particular kind of knowledge, and armed with a unique set of instruments in order to govern.

In a series of influential essays, Rose and Miller demonstrate that Foucault’s turn to governmentality depended on the study of “apparatuses” and “assemblages” as tools of social inquiry. These terms refer to mechanisms of power that do not seek to regulate a specific relationship, but rather to “conduct conduct,” or to observe, manage, regulate, and guide (or “conduct”) the conduct (or activities, behaviors, and practices) of individuals. Government is a form of “power” that is not interested in correcting or punishing but in guiding the activities of individuals insofar as they are “free” to conduct

¹³² Foucault’s well-known lecture on “Governmentality” was delivered in his 1978 courses at the Collège de France, published in an collection titled *Security, Territory, Population*. Foucault, Michel. 2007. *Security, Territory, Population*. New York, NY: Palgrave Macmillan. There is also an edited book on governmentality that includes the governmentality lecture along with a large number of very useful studies by Foucault’s students and colleagues in the vein of governmental research. Burchell, Graham, Colin Gordon, and Peter Miller. 1991. *The Foucault Effect: Studies in Governmentality, with two lectures by and an interview with Michel Foucault*. Chicago, IL: Chicago University Press.

their social, economic, and political lives. It is not a form of power that dominates action, but develops simultaneously “rationalities” by which to know, and “technologies” by which to intervene in structuring, a “field of possible actions,” a “field of conduct.” But how is one to perform a governmental analysis? “Instead of writing the history of the self or of subjectivity,” they argued, “we would study the history of individuals’ *relations* with themselves and with others, the practices which both were their correlate and condition of possibility, and enabled these relations to be acted upon.”¹³³ One would trace not “subjectivities,” but “technologies of subjectivity,” the “aims, methods, targets, techniques and criteria in play” when individuals seek to “master, steer, control, save or improve themselves.” In the 1990s, a number of interesting governmentality studies emerged and traced different kinds of apparatuses: on social insurance; poverty and social insecurity; psychiatry and the regulation of health; the dismantling of the welfare state and “third way” politics in Britain.¹³⁴ Today we could point to recent debates over universal health insurance provision by the state as a critique of certain apparatuses of government which tie biological health of individuals and their health practices to the

¹³³ Rose, Nikolas, and Peter Miller. 2008. *Governing the Present: Administering Economic, Social and Personal Life*. Cambridge, UK: Polity. Pg. 7.

¹³⁴ Defert, Daniel. 1991. “‘Popular life’ and insurance technology.” Pp. 211-234 in *The Foucault Effect: Studies in Governmentality*, edited by Burchell, Graham, Colin Gordon, and Peter Miller. Chicago, IL: Chicago University Press. Ewald, Francois. 1991. “Insurance and risk.” Pp. 197-210 in *The Foucault Effect: Studies in Governmentality*, edited by Burchell, Graham, Colin Gordon, and Peter Miller. Chicago, IL: Chicago University Press. Donzelot, Jacques. 1991. “The mobilization of society.” Pp. 169-180 in *The Foucault Effect: Studies in Governmentality*, edited by Burchell, Graham, Colin Gordon, and Peter Miller. Chicago, IL: Chicago University Press. Power, Michael. 2004. *The Risk Management of Everything: Rethinking the politics of uncertainty*. London, UK: Demos.

costs and efficiencies of a system of health care provision and its financing through insurance. In any case, what defines the specificity of “governmentality,” as it articulates itself across growing kinds of social, political, and economic activities, is that it develops at the intersection of a “rationality” that makes sense of a field of activity and the “technologies” that can intervene in it to regulate and manage the conduct of individuals as free, or ethical, subjects.

What is interesting is that, despite some notable exceptions,¹³⁵ the connection between Foucault’s biopower and governmentality was not a major point of research until recently, despite the fact that his lectures in 1979, titled *The Birth of Biopolitics*, were dedicated to reconstructing the emergence of neoliberalism through various governmental apparatuses. What would the study of apparatuses and governmentality mean for the study of the vegetative subject? The emergence of the vegetative subject in the last century presented challenges to various “practices of governing.” For example, during the first world war, many American and British troops suffered devastating neurological injuries as a result of exposure to nerve gases. In the late 1910s, neurologists were actively recruited by the governments of the United States and Britain to develop techniques and institutions to care for these veterans. What emerged was not only protocols, programs, and procedures of care, but new insights into the nature of the nervous system. The problem was the government of veterans who had suffered the “war neuroses” and an apparatus emerged to govern this population. This apparatus linked

¹³⁵ Rabinow, Paul. 2002. *French DNA: Trouble in Purgatory*. Chicago, IL: University of Chicago Press.

together the clinics on the field, hospitals in the home front, and laboratories in universities so that a knowledge of the nervous diseases emerge in relation to technologies that care for the sick. We could take as another example the emergence of the vegetative subject in organ transplantation, which both makes possible an enormous number of new medical activities but which requires, at the same time, a precise and careful regulation and management in the procurement of organs, their distribution and circulation, and so on -- an “apparatus” that depends heavily on a new discourse -- bioethics -- to actively produce and manage a field of organ exchange, therapy, and so on.

Governmentality is a form of power enacted through “apparatuses” that reach into the forms of social life it governs, with knowledges about that life and with mechanisms to intervene into the social body. Not all apparatuses reach the level of governmentality but, as Foucault argued, there remains a distinct “political rationality” to apparatuses which aims to unify social activities and their regulation of individuals upwardly into the global operation of the state; to connect the knowledge of living things and beings in their living environments with the techniques and instruments that manage, regulate, and harness their lives in order to achieve certain ends of collective governance.

Governmentality and the apparatuses that act as its forms of power are also linked to biopower and biopolitical contestations. As we charted earlier, modernity may be characterized as the development of forms of knowledge and power that, with greater force, inquire into the existence of individuals as biological subjects. Rationalities of “life” and “death,” for example in the vegetative subject, must be seen in this light or as

forces that an apparatus seeks to harness and redirect in the everyday social, economic, and political life of individuals.

Indeed, in governmentality Foucault discovers another objectifying practice: this is a practice that allows individuals to govern themselves and others through mechanisms that tie them to the continued existence of governmental apparatuses. What Foucault articulates is a form of power that rationalizes a field of social activities knowable to, and regulable by, figures such as experts or authorities armed with techniques to intervene into individual life and conduct. In addition, Foucault argues that the “tendency” and expansion of governmentality as a form of power that manages a social population “has steadily led towards the preeminence over all other forms of this type of power, which may be termed government.”¹³⁶ Governmentality links itself to the disciplinary forms of power Foucault analyzed in his book on the prison, clinic, asylums and correctional facilities.

9. Apparatuses of Government and Processes of Subjectification

By the early 1980s, Foucault was struck by the notion that social struggles in modern societies are characterized less by power relations of domination, exploitation, or overt violence and more by relations of subjugation. Among those forms of subjugation that constituted human beings as subjects, he had detected three forms: 1/ those which constitute subjects “through the exclusion of some others,” such as disciplinary power; 2/

¹³⁶ Foucault, Michel. 1982. “The Subject and Power.” Pp. 208-228 in *Michel Foucault: Beyond Structuralism and Hermeneutics*, edited by Dreyfus, Hubert L., and Paul Rabinow. Chicago, IL: Chicago University Press. Pg. 210.

those through which we “recognize ourselves as part of a social entity,” such as governmentality, and confession;¹³⁷ 3/ and finally, those we use to “directly constitute our identity through certain ethical techniques of the self” (e.g., those practices from Greek antiquity that Foucault studied in the 2nd and 3rd volumes of *The History of Sexuality*).¹³⁸ These forms of subjugation -- what he called modes of “self-recognition” and “self-production” -- were organized by distinct kinds of rationalities of truth and relations of power, each taken up and varied across distinct social relations (social “struggles”) and material-discursive practices. What is common to relations of subjugation in modernity (i.e., 1 and 2 but not 3) is not only that they refer to practices through which our actions inscribe us as subjects, but that our actions are always available, open, and intelligible to the actions of others upon our actions. In other words, what is intensified in modernity is a mode of subjectification by which we tie ourselves, through our actions, to an “apparatus,” within which our actions are intelligible by and to others, and upon which others may act, thereby acting on us.

¹³⁷ Although Foucault’s lectures from 1980 titled *On the Government of the Living* have not yet been released in English (at the time of this writing, the lectures have not yet been translated), Jean-Michel Landry has written an enormously insightful and useful summary of the course’s lectures and positioned them exactly within Foucault’s general inquiry into “government.” Landry, Jean-Michel. 2009. “Confession, Obedience, and Subjectivity: Michel Foucault’s Unpublished Lectures *On the Government of the Living*.” *Telos* 146: 111-123.

¹³⁸ Foucault, Michel. 1985. *The History of Sexuality vol. 2: The Use of Pleasure*. New York, NY: Vintage. Foucault, Michel. 1988. *The History of Sexuality vol. 3: The care of the self*. New York, NY: Vintage.

In the late 1970s and early 1980s, Foucault had focused on studying what he called the “political technologies of individuals.”¹³⁹ These are political rationalities that are aimed at individuals not only to effect an individuation but, at the same time, to modulate “government” in relation to individualization so as it intensify both. “I think,” stated Foucault, “that the main characteristic of our political rationality is the fact that ... the integration of individuals in a community or in a totality results from a constant correlation between an increasing individualization and the reinforcement of this totality.”¹⁴⁰ The elevation of the “political technologies of individuals” in modernity meant more than the demotion of former western modes of subjectivation that he had analyzed, for example, in the “ethics” of self-constitution outside of the “games of truth.”¹⁴¹ The prominence of the political technology of individuals signaled that “government” *per se* -- i.e., the management of things, beings, and their relations to each other so as to guide activity to useful outcomes -- had become the basic condition for the

¹³⁹ It is true that in “Subject and Power,” where this quote is taken, Foucault refers explicitly to the state. However, it seems to me that the nature of the lectures, and the path of research he took, after the publication of this article (after 1982) is released from the specificity of the modern state (and the emergence, for example, of *raison d'état* or of liberalism. Rather, the specificity of power is found less in the specificity of the state's rationalities of power (such as governmentality) and more in the fact of government itself: “power is less a confrontation between two adversaries or their mutual engagement than it is a question of ‘government,’” that is: “the way in which the conduct of individuals or of groups might be directed.” (340)

¹⁴⁰ Foucault, Michel. 2000. “The Political Technology of Individuals.” Pp. 403-417 in *Power*, edited by Faubion, James D., and Paul Rabinow. New York, NY: The New Press. Pg. 417.

¹⁴¹ Foucault, Michel. 2000. “For an Ethic of Discomfort.” Pp. 443-448 in *Power*, edited by Hurley, Robert, James D. Faubion, and Paul Rabinow. New York, NY: New Press.

existence of the subject itself. One may be able to restate this point differently so as to perhaps reveal the full effect of its meaning: in the modern period, government (i.e., the management of the life of human beings as living beings in a living world) does not exist independent from processes of subjectification, and subjectification does not exist outside the conditions of the exercise of government.

In a recent book, Giorgio Agamben argues that a technical term emerges in Foucault's work from the mid-1970s onward: and this term is *apparatus (dispositif)*.¹⁴² For Foucault, the term had first been used in the first book on sexuality, where he had said he had tried to map an "apparatus of sexuality."¹⁴³ Agamben neatly summarizes a few basic points regarding an apparatus: 1/ it is a "heterogeneous set that includes virtually anything, linguistic and non-linguistic ... : discourses, institutions, buildings, laws, police measures ..." so that "the apparatus itself is the network that is established between these elements;" 2/ the apparatus is always animated by relations of power that give it its "strategic function," its global ends; 3/ it "always appears at the intersection of power relations and relations of knowledge." For Agamben, however, the importance of this term is not that it "refers only to this or that technology of power," but that it is an "operative concept with a general character" in Foucault's thought. "Apparatuses are, in point of fact, what take the place of the universals in the Foucauldian strategy," it is the

¹⁴² Giorgio Agamben. 2009. *What is an Apparatus?* and other essays. Stanford, CA: Stanford University Press.

¹⁴³ Foucault, Michel. 1980. "The Confession of the Flesh." Pp 194-228 in *The Foucault Reader*, edited by Paul Rabinow. New York, NY: Pantheon.

“network [*le réseau*] that can be established between elements” among which includes relations of power and discourses of truth.¹⁴⁴

For Agamben, the significance of “apparatus” (*dispositif*) in Foucault’s thought is tied in part to the “complex semantic sphere” of related terms -- including, for example, “positivity” (Hegel) and “Gestell” (Heidegger) -- that reach back to the theological appropriation of *oikonomia*, an event roughly contemporaneous with the introduction of the trinity. This moment represents a moment of *fracture* in the original singularity and unity of God, a fracture that “divides and, at the same time, articulates in God being and praxis, the nature or essence, on the one hand, and the operation through which He administers and governs the created world, on the other.”¹⁴⁵ In any case, the term “designates that in which, and through which, one realizes a pure activity of government devoid of any foundation in being.”¹⁴⁶ The parallel to “apparatus” in the thought of Foucault refers precisely to the relation between government as “that which manages the lives of living beings in a living world” and the processes of subjectification that government operates through. Thus “apparatuses,” argues Agamben, “must always imply a process of subjectification, that is to say, they must produce their subject.”¹⁴⁷

¹⁴⁴ *What is an Apparatus?* Pg. 11.

¹⁴⁵ *Ibid.* Pg. 11. However, Agamben’s longer treatise on the matter has been recently published. I have not read because it has not yet been translated from the Italian. Agamben, Giorgio. 2007. *Il Regno e la Gloria: Per una genealogia teologica dell’economia e del governo* [The Reign and the Glory: A Theological Genealogy of Economy and Government]. Blacks Pozza.

¹⁴⁶ *Ibid.* Pg. 11.

¹⁴⁷ *Ibid.* Pg. 11.

What interests me in Agamben's discussion is his argument that an apparatus is "first of all a machine that produces subjectifications, and only as such is it also a machine of governance."¹⁴⁸ No machine of governance can function without a subject it expects, it can know, for which it has already prepared a field of intelligible actions, reactions, etc. "A desubjectifying moment," he continues, "is certainly implicit in every process of subjectification." In order for a subject of the prison to become a subject of the clinic, for example, an individual must be desubjectified in order to be resubjectified. The great threat that Agamben perceives is that we are living in a period when the "capture" of individuals by apparatuses has reached a point where "processes of subjectification and processes of desubjectification seem to become reciprocally indifferent, such that they *do not give rise to the recomposition of a new subject*."¹⁴⁹ For Agamben, the "proliferation of apparatuses" in "every field of life" signals the foreclosure of political life. Politics, "which used to presuppose the existence of subjects and real identities," is eclipsed by "the triumph of *oikonomia*, ... a pure activity of government that aims at nothing other than its own replication."¹⁵⁰

10. The vegetative subject as a biopolitical and governmental phenomena

Agamben's conclusions, while dramatic in tone, help clarify the stakes of the study of biopower in the vegetative subject. In *Homo Sacer*, Agamben references the

¹⁴⁸ *Ibid.* Pg. 21.

¹⁴⁹ *Ibid.* Pg. 21.

¹⁵⁰ *Ibid.* Pg. 22.

vegetative patient to argue that the political question of the vegetative subject, as a political subject, is that the right to kill with impunity is now a normative figure in law. Cadman, for whom the politics of end-of-life is essentially the authority to make a decision on death, echoes this argument. This view of the political stakes of the vegetative subject can be held as long as we assert that the question of the end-of-life *only* pertains to the freedom to decide to die. While the decision on death is a major component of the vegetative subject as a figure of contemporary biopolitics, this chapter and the previous one have argued that the existence of the vegetative patient *as a subject* extends much further, and prior, to a decision on death *per se*. What is critical is not the decision or right to die, but rather the “governmental conditions” and procedures of subjectification which make the decision, or the right, to “die” possible. This is why Agamben’s more recent work on various governmental apparatuses is more relevant to this biopolitical study of the vegetative subject. It demonstrates that the political question is prior to the decision on death and exists, instead, at the intersection between conduct, government, and subjectification. That is, the biopolitical question exists in the rationalities of conduct and frames of meaning that extend the vegetative subject, as a problem of government across social, economic, and cultural domains.

To make clear the political stakes of the rationality of biopower deployed to make sense of the dying and death apparatus, we must remember that cognizant life, the bare production of consciousness in the brain, renders the existence of a human subject in doubt. Indeed, we do not know, nor do we have certain scientific knowledge, that a vegetative patient is either conscious or aware. As we will see in the next chapter, the

brain as a discourse of human life is fraught at its inception by an ontological aporia: the knowledge we have of the brain's processes in making consciousness are grounded in a theory of mind which cannot, with certainty, determine whether or not a vegetative subject is in fact a human subject with subjective experience. This is why, as we have seen through this thesis so far, the entire problem of the vegetative subject's visibility is to *produce a subject* where none appears self-evident. Producing this vegetative subject has been an historical project; it culminates today in the dying and death consensus. What is more striking is that this subject, produced as a human subject on the condition that the existence of a subject is in doubt, commands the attention of all kinds of material, discursive practices across economic, law, politics, society, and culture.

How does this apparatus intervene, under these circumstances? What I argued in the second part of this chapter is that, in order to produce a subject on the condition where there is doubt that a subject exists at all, the apparatus intervenes in the name of freedom. Indeed, the function of this apparatus is to regulate the concrete social, economic, and institutional relations that manage the vegetative subject *through* ethics by installing an ethic of alterity. How should I organize my relation to the "other" when that "other" occupies a relation to death? The answer to this question is straight-forward: organize your actions to the other in such a manner that you respect their freedom, autonomy, and self-determination in their own relation to dying and death. What is critical here is that, in order to confront "death," we are told we must adopt a new style of thought about oneself and the dying; that we must learn to speak and see in cultural idioms and repertoires of the end-of-life; we must engage in legal activities that produce

the authority for others to speak about, and decide, our end-of-life; and we must, above all, commit ourselves to a particular practice of ethical self-constitution, a practice that extends across a great number of relations with the end-of-life subject. These are not only found in medical or legal care but, for example, in our roles as citizens who pay taxes to fund state-sponsored, social entitlement programs for end-of-life care. In short, they reach up to the level of collective existence itself.

But what is ethics now if it is not, as Agamben argues, the “pure activity of government that aims at nothing other than its own replication?” Indeed, the main argument I will advance in chapter four is that the vegetative subject represents a new form of biopower: a biopower where human subjects exist as subjects only insofar as we occupy a field of governmental rationalities. That is, we are human subjects in relation to others only insofar as we are recognizable within the expansive field of government and its processes of subjectification.

What is significant about the form of biopower in play here is that subjectification processes are the *precondition* for any politics at all; in fact, they are both the precondition and the end of the dying and death apparatus. Whereas there may have been a point in our history when to ask “who exists in a relation to death?” did not immediately correspond to a set of actions one could take to help the other, today we cannot ask “who exists in a relation to death?” without already being in a space where our conduct and actions are managed and regulated by a form of power that seeks to secure “freedom” at the end of life. We may well wonder what it means that we are developing

a form of subjectivity whose “freedom” depends on the existence of a governmental apparatus to secure and sustain it.

My own fear is that, as the relationship between our knowledge of biological life and our capacity to harness it continue to reshape our economic, political, and cultural life, we will encounter different kinds of “vegetative subjects.” I don’t mean to say here that we’re all going to become vegetative. What I mean is that we’re going to confront an ever greater number of crises where the requirement to constitute ourselves as ethical subjects in relation to others who occupy a precarious life (e.g., in ecological disasters or economic famine) will be increasingly “governmentalized.” It is an inevitable state of affairs; we are learning more and more what it means to be living beings in a living world explicitly through a biology that is tied with ever greater force to the economic, social, culture and political well-being of some and not others. Epistemology of our biology cannot account for an ontology of human life. Yet, this is precisely what we are attempting to do today with the vegetative subject.

“The trouble is that something physical is present but never appears.”¹⁵¹

1. Between cognizant life and brain death

In the last chapter, I argued that to understand the meaning, work, and effects of the redefinition of human death as brain death, we must trace the rationality of life specific to what I called the vegetative subject. Parallel to the notion that brain death constitutes death is another: that the brain and its activity constitutes a discourse of human life. I meant to suggest that not all of mental life is in question here, but only its bare elements: i.e., consciousness as the foundation of mental life which constitutes a person, produced by the biological and nervous processes of the brain. Let us call this discourse of life by a specific term: *cognizant life*. The vegetative subject exists on the threshold between cognizant life and brain death such that the personhood of an individual is uncertain because the cerebral activity that produces cognizant life is in question. I also argued that the production of personhood itself, or the production of the vegetative subject, was not simply a scientific or medical problem, but a legal, ethical, moral, cultural, and social one. This is to say that cognizant life, brain death, and subjectivity are mutually, reciprocally at stake in the institutions and domains of activity that are called upon to make the vegetative body intelligible. Accounting for a vegetative

¹⁵¹ Arendt, Hannah. 1977 (1961). “The Conquest of Space and the Stature of Man.” Pp. 265-282 in *Between Past and Future: Eight Exercises in Political Thought*. New York, NY: Penguin Books.

subject requires placing personhood, bare consciousness, and death into a paradigm of mutual intelligibility, itself rendered intelligible across discursive practices.

The vegetative subject is not, to be sure, the same as a body in a persistent vegetative state, even if that body remains its most expressive and symbolic figure. By vegetative subject I did not want, either, to identify the subjectivity of a person *in* a vegetative state. I coined this term to orient readers to the complex ways that the problems posed to medical institutions, law and bioethics (for example) by cognizant life require the production of a human subject in order to be confronted. The vegetative subject is made: it is the discursive, material, conceptual, or practical form given to cognizant life by institutions and discourses so that the life, death, and status of an individual as a person are intelligible. Now, brain death is a term that, at least since the 1960s, has gone under many permutations. All of them, however, claim that a minimum amount and kind of biological activity in the brain is necessary to assert the presence of a “person;” and, reciprocally, to assert that the death of an individual can be diagnosed by the *absence* of a certain amount and particular kind of cerebral activity. It is not a specter of death in isolation that institutions are responding to when they care, for example, for the vegetative body, but the way the brain, body, mind, and consciousness are conceptually organized to respond to a discourse and knowledge of human life itself; i.e. cognizant life.

The relation of a rationality of life to the production of a subject, I argued, is an historical project. The Schiavo case, which expressed the current intelligibility between brain death and cognizant life, is historically contingent upon the nature of cognizant life

today, brain death, and the discursive repertoires of institutions which make that life and death intelligible. Today's configuration is transitional, however; it will mutate as it has already mutated several times in the last century. This is not to say that cognizant life has been around forever, however. It is new, but its origins are not. In order to understand the work and effects of our contemporary configuration, and to understand how, in the extensive reach of that relation across human affairs, it is shaping the future, it is necessary to understand how this rationality of life itself came into being. I will trace a genealogy of this subject within a more general genealogy of cognizant life. The main figures of this genealogy are: the brain, body, mind, consciousness, and nervous system, not only in their scientific, philosophical, or medical articulations, but more recently in their legal, ethical, cultural and economic ones.¹⁵² What are the origins of cognizant life? How did it emerge as the basic threshold of human personhood and consciousness located in the nervous tissue of the brain? And how did it come not only to order a discourse of life, but to have a relation to death? How did cognizant life emerge and give form to what I have been calling the vegetative subject? What constitutive moments of cognizant life made the vegetative state intelligible in the mid century? What are the conceptual origins of the theory of mind which cognizant life depends upon? What was the importance of the clinic in shaping the intelligibility of cognizant

¹⁵² These figures are complicated philosophical and scientific topics of great historical complexity. A full account of the history of their interrelations as a medical, scientific or philosophical topic extends far beyond the scope of this dissertation. Our interest in them is limited to how they figure into a genealogy of the vegetative subject, the rationality of life specific to this subject, and how they mediate the relation of the subject to death.

life? And how can we understand the shifting relation of body and brain in forming cognizant life?

This chapter proposes a response to these questions by triangulating a genealogy of the cognizant life between these pillars of inquiry. First, I want to trace how clinical medical practices and scientific inquiry in the late 19th and early 20th century developed a knowledge of the brain as an organ of the mind. Second, I then aim to retrace the foundations of cognitive science and contemporary neuroscience to recover basic assumptions about a physicalist science of mental functioning. I want finally to set out how cognizant life acquired a relation to death, which is to say brain death. It is within all three of these pillars and their relations that cognizant life became intelligible and allowed for the birth of the vegetative subject.

All three lines will show a particular kind of conceptual and practical inversion of the relation between brain and body vis-à-vis mind. Where once the brain's mental function was dominated by the life of the body, today the life of the mind, at least in cognizant life, dominates the life of the body. This inversion, furthermore, corresponds with an "emancipation" of the mind from the body; in fact, the domination of the mind depends on its emancipation from the body. This emancipation of the mind from the body is conceptual, epistemic, but also practical. The emancipation is largely due to cognitive science which, in creating a natural and physicalist science of mind inspired by nervous functioning, theorized cognitive processes as computational ones and made them the foundation of mental states and mental activity itself. By giving the mind an essentially cognitive and computational form, the mind was not only freed from the body

epistemically, but the life of the person could be divided between the life of the body and the life of the brain.

The vegetative subject embodies what I call a “void of personhood” in the space between the life of the body and the life of the brain. This aporia explains how and why the threshold between cognizant life and brain death became a vast space of ethical, legal, cultural, and social reflection. It was a space in which a subject could be rendered intelligible and practical so that the welfare and life of a human person could be organized. Thus, I am not only interested in how the vegetative subject was possible within a rationality of cognizant life, but also how cognizant life created the conceptual and practical space in which the vegetative subject could emerge and become an object of governmental and biopolitical techniques. Those techniques, rather than legal statutes and medical definitions, are where the generality of the vegetative subject will be discerned. That will be the topic of chapter four. I begin this story in the late 19th and early 20th centuries, when the study of the nervous system began to solidify as a scientific enterprise and when, in parallel, the use of neurosurgery in the clinic likewise began to expand.

2. Scientific and clinical neuroscience in the late 19th and early 20th Century

2.1 Dualism and the epistemology of the nervous system

It is sometimes taken for granted today that the brain functions as the seat of mind, and that the latter extends over nearly every aspect of human behavior, thought, and emotion. It may soon be possible to rationalize the complex mental activity of our

brain in relation to our everyday social experiences. It is difficult to understate how, in the last quarter century, the brain has become a well-accepted figure in the biological repertoire by which we understand ourselves as living beings. One major expression of this vitalist imagination is that the brain is an object of medical therapy. Most people know, for example, that neurotransmitters affect mood, attention, thought, or perception (i.e., they enhance mental processes or correct mental disorders). The elevation of the brain as a figure of human life has also been abetted by futurists who have dreamed that, in the near-term, it will be possible to “upload,” and thereby reproduce, the mind and consciousness on silicon hardware designed to function like the neural processes of the brain. To upload our minds would be to upload ourselves. Meanwhile, the rapid ascent of neuroengineering has shown that we can attach live-neural cultures (i.e., the brain) to mechanical devices (i.e., a body) with electrodes and that we can “train” the former via the movements of the latter; i.e., to build a brain in the “wetware” of neurons, given even the most basic bodily form. Finally, one may look at the deep relation of brain and consciousness in such pathologies as the vegetative and brain-dead patient, where the brain’s activity is not only expressive of complex human life, but is the bare condition for human life’s possibility. What these and other developments reflect is the widespread distribution of a whole scientific and cultural imaginary, grounded in the belief that the natural processes of the brain are constitutive not only of consciousness and mental life, but of the human subject itself as a biological and social creature.

The scientific and clinical origins of this imaginary lie in the late 18th and early 19th century. The emergence of the central nervous system as an object of experimental

science, clinical surgical practice, philosophies of mind, and psychology were the vehicles of this origin. In contrast to contemporary neuroscience, where the brain is the dominant epistemological object, neuroscience at the dawn of the 19th century was borne of discursive paradigms, practices and intellectual debates that placed a greater emphasis on embodiment, environment, and the central nervous system as a whole. What 20th century neuroscience was able to accomplish, which the 19th century could not yet imagine, was a knowledge of mental life coextensive with the biological and physical activity of the brain alone; a knowledge that was, furthermore, discursively emancipated from the nervous system of the body.

The roots of these conceptual and epistemological interests in the nature of the central nervous system and brain trace far back in western society. As everyone knows, the question of the relation between the mind and the body, which to say the mind and brain, was given its modern form by Descartes. Descartes radicalized the distinction between the *cogito* (the rational soul) and the body (e.g., the “passions”), not only making the former responsible for all thinking (thereby marking philosophy as epistemology), but also intensifying the question of the relation (if any) between thinking and matter or mind and body. Descartes’ legacy is indeed that he gave to moderns the belief that the mind and the body are, epistemologically and causally, mutually exclusive; a hierarchically ordered dualism. However, by separating the immaterial mind (as that which thinks) from the material body (as a mechanical device that feels, moves, etc.), Descartes raised the question of whether there was any interaction between the two. He offered his own response in *The Passions of the Soul*, in which he located the space of this interaction in

the pineal gland of the brain where, he explained, desires and passions were actuated into actions via the mind.¹⁵³ The epistemology of mind, or rational soul, which took shape after, and in response to, Descartes (e.g., in Spinoza, Locke, Condillac, Kant) demonstrates a constant interest and reflection of mind and matter. Those debates, however, go beyond the scope of this chapter.¹⁵⁴ While they concern the relations of sense, impression, and perception, they do not consider neurology, brain or the central nervous system at all.

There are a few exceptions to dualist philosophy in early modernity. La Mettrie published in 1748 *L'homme Machine*, rejecting dualism and adopting a materialist, mechanical view of the human subject. Even La Mettrie's ardent materialism of man as a purely mechanical automaton, however, is more concerned with materialist arguments against idealism than it is concerned with developing an epistemology of the nervous system or brain. As in other similar treatises of the period, mind is accounted for by a mechanical, physical body of springs, pulleys, and levers that produce "vibrations" on the brain. It is necessary, then, to distinguish the epistemology of mind and soul inaugurated by Descartes' materialism vs. idealism from the epistemology of the central nervous system and the brain, which attempts to ground mind in biological processes. This latter

¹⁵³ Lokhorst, Gert-Jan C., and Timo T. Kaitaro. 2001. "The Originality of Descartes Theory about The Pineal Gland." *J. History of the Neurosciences* 10 (3): 6-19.

¹⁵⁴ And beyond the abilities and knowledge of this author. Although I have the relevant passages of *The Passions*, as well as passages from Locke's *Essay on Human Understanding* and Kant's *Anthropology*, I have drawn my information here from Wozniak (see below), and Boring, Edwin. 1950. *A history of experimental psychology*. Englewood Cliffs, NJ: Prentice-Hall.

epistemology only takes shape in the late 18th and early 19th century, and only with it can a new reflection on man as a living being in a living world take shape through the processes of an organ (the nervous system) that precedes and conditions both mind and body.

An important step toward the epistemology of the central nervous system and the brain was undertaken by Cabanis, whose *Rapports du Physique et du Moral de L'Homme* foregrounded the notion that nerve fibers mediated the interaction of mind and body in the field of sensation and perception.¹⁵⁵ The “science of the relations between the physical and the moral,” Cabanis argued, aims to scientifically isolate the causal nature of these relations. Which forms of actions on the body originate in the moral faculties and, reciprocally, which physical causes produce mental events, feelings, passions, thoughts, and emotion? The method of association was not new. What was new, however, was the idea of drawing a complete and total set of relations between physiological nature and moral faculties so as to produce two distinct definitions of “life.” Cabanis’ first definition of life refers to organic processes that are *not* associated with ideation, and the second to organic processes that *are* associated with ideation. The former are internal to the body, e.g., physiological processes such as digestion, while the second define the life of the *animal*, which is to say the life of an organism *in relation* to its environment or

¹⁵⁵ Cabanis, Pierre-Jean-Georges. 1843 (1802). *Rapports du Physique et du Moral de L'Homme*. Paris, France: Fortin, Masson et Companie. This edition of Cabanis’ book is now in the public domain and several editions may be found on Google Books. It includes a very informative introduction to the life of Cabanis and also to his work. Canguilhem wrote an encyclopedic entry on Cabanis that can be found here: Canguilhem, Georges. 1981. "Cabanis, Pierre-Jean-Georges." *Dictionary of Scientific Biography*. New York, NY: Charles Scribner's Sons.

conspecifics -- in short, the life of the animal guided by the interaction of sensation and moral faculties. In philosophy of mind, sensation is critical, but Cabanis gave sensing a physiological substrate. "Living," Cabanis wrote, "is sensing," and the "nerves are the particular seat of sensation. They distribute to all the organs which they form the general and alimentary relation of life."¹⁵⁶ Cabanis also claimed that thought and action (neither one without the other) and their co-extension depended centrally on the "integrity of the brain," but he did not elaborate deeply on the nature of this integration. Yet Cabanis' materialism was among the first to produce the nervous system as an exhaustive and necessary condition not only of the "life" of the animal, or even that of Man (to which Cabanis' research was chiefly directed), but also as the mediator of relations between the animal and the environment. For Cabanis, *sensation* was an essentially nervous process.

Another turn to the epistemology of the nervous system was by Bichat, a contemporary of Cabanis, who published his famous treatise titled *Physiological Researches on Life and Death*.¹⁵⁷ Bichat divided life's mechanisms between their interiority and exteriority. The life of each individual organism is divided between the "organic" and the "animal," which is to say life that is disconnected from the mind ("existing only within itself") and the life of the animal occupying relations ("an exterior life by which [the animal] acquires a very numerous series of relations with all surrounding bodies, which it couples with the existence of every other being"). It was in

¹⁵⁶ *Rapports du Physique et du Moral de L'Homme*. Pg. 5.

¹⁵⁷ Bichat, Xavier. 1827. *Physiological Researches on Life and Death*. Boston, MA: Richardson and Lord.

this sense that Bichat's definition of life -- "life consists in the sum of the functions, by which death is resisted" -- is perhaps more intelligible. For what is critical here is that animal life (including humans) sustains relations of exteriority, i.e., relations with things outside of itself. The mechanisms that "resist" death are those that allow the animal to exist in relation to things outside of itself. This dimension of his definition is often neglected, but it is all the more important given the concern Bichat had with the *brain* and the nervous system as one principal mechanism of animal life. Consider this passage summarizing his view of an organism's animal life and nervous system. Each form of life (organic and animal) is composed of two orders of functions. Regarding animal life, he says:

The first order is established from the exterior of the body, towards the brain; the second from the brain towards the organs of locomotion and the voice. The impression of objects successively affects the senses, the nerves and the brain. The first receive, the second transmit, the third perceives the impression. The animal, in the first order of these functions, is almost passive; in the second, he becomes active -- This second order is the result of the successive actions of the brain (where volition has been produced in consequence of the previous sensation) of the nerves, which transmit such volition, and of the locomotive organs and voice, which are the agents of volition. External bodies act upon the animal by means of the first order of these functions, the animal reacts upon them by means of the second.¹⁵⁸

Several points can be made here to understand what is new and how it augured the development of neuroscience in the 19th century. Bichat leaves relatively intact the traditional view that perception is in the brain, and that streams of successive impressions are the substance of its formation. But he has added the brain's capacity to direct volition

¹⁵⁸ *Physiological Researches on Life and Death*. Pg. 15.

and speech. Language, in the 19th century, would become a major form of study in the epistemology of the brain and nervous system -- notably with Broca and Wernicke who would begin to identify areas of the cerebrum associated with speech, aphasia, and literacy. So too motor coordination, reflexive behavior, and mobility in an environment. Bichat also foreshadows another major epistemological claim about the nervous system: while the brain perceives, the nervous system transmits and conducts. This view would remain fundamental until the early 20th century when, thanks to Cayal among others, neuron doctrine emerged and demonstrated that nerves are tied to reflexes that can learn and change in relation to behavior. Although the brain and the nervous system certainly do have special functions, their operation is never explained independently of the body as a whole. It is with respect to the life of the animal in an environment that physiological processes, including those of the nervous system, are functional. Indeed, since Galvani's discovery in 1771 of the bioelectrical properties of muscles and the nervous system, physiologists had worked to map the functional relations of the nervous system to the sensory and muscular capacities of the body. It was in this context that Bichat explored, in the entire second part of his book, the functions of life distributed between the heart, lungs, and brain as they related to the death of embodied animal life in an environment.

The fact that the nervous system transmitted sensory and motor signals had for some time been held to be a property simultaneously present in neural formations either in the body or the brain. But as I just noted, galvanic experimentation allowed for new inquiries into the nature of the nervous system, as a whole, in the body. In 1811, Charles Bell published his *Idea for a New Anatomy of the Brain* in which he described a number

of experiments on the nervous system and brain which led him to conclude that, in contrast to conventional wisdom, there existed three *distinct* nervous-fibers for sense, motion, and what Bell called “vitality.”¹⁵⁹ The implications of these discoveries were critical for both the clinic and neuroscience. Among other consequences, they allowed for more fine-grained experiments on the nature of the brain as distinct from, and in relation to, the nervous system as an organ of locomotion and sensation. Whereas the central nervous system was studied for its operations distributed throughout the body as a whole, the anatomy of the brain was investigated for its integrative and coordination functions. At the same time, important distinctions were made from a pathological point of view: injuries to the brain or spinal cord that caused paralysis or aphasia were understood anew, as when limbs could still sense or the patient could still speak words while paralyzed.

¹⁵⁹ There exists some debate about whether it was Charles Bell or another physiologist, Alexander Walker, who should be given credit for discovering that there are two kinds of nerve fibers. Walker published a small pamphlet 1809 titled “New Anatomy and Physiology of the Brain in Particular, and of the Nervous System in General” in the *Archives of Universal Science* (July 1809). Nevertheless, the credit is given to Bell over Walker because, while Bell submitted his idea to *experimentation*, Walker never did. Such a history, as it happened, only confirms the already widely known importance of experimentation as a legitimating procedure of modern scientific epistemology. See Carpenter, William B. 1882. “Sir Charles Bell and Physiological Experimentation.” *The Popular Science Monthly* 2 (6).

Around the time Bell, Bichat, and Cabanis published the works for which they are best known, Francis Gall and Johann Spurzheim published their treatise on phrenology.¹⁶⁰ The nature of the inquiry was similar to Cabanis' (the relation of the physiology of the nervous system to the moral faculties) but the method of investigation was different. According to Gall and Spurzheim, the physical formation of the cranium, which reflected the particular anatomical and physical growth of the cerebrum, demonstrated a predictable relation with the temperament, intelligence, morality and personality of an individual. The method was also clinical. A diagnosis went something like this: for any location on the skull, the particular formation of the cranium at that location corresponds to the anatomical portions of the brain that are functional for different mental, intellectual faculties. An "oversexed" or lethargic man, for example, was said to exhibit a broader, flatter anterior portion of the skull. The range of moral intellectual faculties that interested Gall and Spurzheim appear, in retrospect, something like Borges' chinese

¹⁶⁰ Gall, Franz. J., and Spurzheim, Johann. 1810. *Anatomie et physiologie du système nerveux en générale, et du cerveau en particulier, avec des observations sur la possibilité de reconnaître plusieurs dispositions intellectuelles et morales de l'homme et des animaux, par la configuration de leurs têtes*, vol. 1. Paris, France: Schoell. The UCSD Special Reserves library has an original copy of both the French and the English translation of this book. Though their work was generally unscientific (Gall and Spurzheim never conducted any experiments and were, by and large, nomadic showmen) and its conclusions on the relation of mental faculties and cerebral anatomy later dismissed entirely, it is difficult to understate the importance this book had on the progress of 19th century neuroscience. It can be rightly seen as having been the first intellectual statement that foregrounded cerebral localization as a method by which to determine cerebral function. For a good idea of the kind of debate provoked by the "discoveries" of Gall and Spurzheim, see: Kaufman, M. H. 1998. "The Edinburgh Phrenological Debate of 1823 Held in the Royal Medical Society." *Journal of Neurolinguistics* 11 (4): 377-389.

menu: the organ of “murder,” for example, was located adjacent to the organ of “cunning;” so too the organs of “tenderness for offspring” near “the impulse for propagation.” Their method was behavioral, physiognomic, and clinical, depending on empirical observations. Deformities, when found, correlated to moral or intellectual predilections and a psychological profile. It is true that the conclusions drawn by Gall and Spurzheim were largely discredited by the mid-to-late 19th century. But the method by which they produced their results -- *functional cerebral localization* -- endured and, indeed, remains today a primary form of investigation into the nervous system.

Jean-Pierre Flourens, a contemporary and frequent adversary of Gall and Spurzheim, was asked in the early 19th century to substantiate the claims of the phrenologists. The nature of criticism against the phrenologists had generally been the lack of experimental rigor. In order to settle the debates, Flourens designed an experimental method and apparatus to investigate the relation of the cerebral anatomy to mental function. The method involved methodically lesioning and ablating areas of the cortex suspected of being responsible for certain functions and observing the results. He produced many discoveries that became foundational knowledge in neuroscience, and while he was able to confirm that certain areas of the cortex were *generally* responsible, for example, for motor or sensory functions, he could find no evidence of particular areas responsible for higher mental ones. It was here that Flourens proposed that the higher cortical regions of the brain were equipotential, plastic, and developmental in nature, not modular. In any case, the experimental method of ablation could hardly be used on humans in a general way. But where the limits of laboratory experimentation imposed

themselves, the clinic opened possibilities. Here, mental and physical pathology following brain injury could go hand in hand with a new experimental paradigm of the nervous system and brain. The clinic would indeed develop into an important space of cerebral and nervous investigation.

A detailed history of early modern brain and nervous science is beyond the scope of this chapter. My goal is instead to explore the preconditions of experimental, scientific, and clinical neuroscience. And my main point is to show that advances in the 19th century on the relation of the mind, brain, and body depends for their intelligibility on the idea that an animal's material existence as a living organisms depended on the nervous system as a whole. In other words, the relation of brain, mind, and body required an epistemology of the nervous system. Embodiment was key. The mental, moral, and intellectual faculties of human beings, from a nervous or cerebral point of view, were not separable from of the physiological life of the body. In fact, relationships of interiority and exteriority were the interactional bounds of the nervous system that mediated the life of an animal in an environment, whether social or natural. The distinction between sensory and motor nerves, as well as their electrical, conductive properties, were central to expanding an epistemology of the nervous system as the life of the animal in an environment. Clinically, the picture was the same, but with the added representational discourse of cerebral localization. If phrenology had been debunked, it was because its categories and cerebral topologies lacked any experimental or pathological rigor. Finally, the distinction between merely organic, involuntary processes and moral, voluntary faculties, as well as the threshold between life and death, had for a long time already been

introduced as problems for an epistemology of brain and the nervous system. But again, here as in the clinic, the existence of the body was dominant. Only when the latter joined hands with psychology could mental life really be brought into the fold.

2.2 Clinical neuroscience in the late 19th and early 20th centuries

Although the mind-body, material-immaterial dualism was rather dominant in early modernity among the great philosophers, the central nervous system was slowly emerging as an object of epistemological consideration. If the brain was treated as a figure in this epistemology, however, its intelligibility was never separate from the body. While the mind depended on the operations of the brain and nervous system, the knowledge of the brain itself looked nothing like it does today; the nervous system mediated, at best, sensory and motor faculties or the transmission of impressions. Phrenology was an exception. It was interested in the brain as a topological organ rather than nervous functioning. But as I just noted, when neuroscience was born, it was a science of the whole nervous system in the *body*. Several “bodies” made intelligible the nervous system. It was these bodies that not only made 19th century neuroscience flourish, but so too its clinical uses. On the one hand, experimental neuroscience could develop natural theories of the mind’s operation (among other things) while, on the other hand, clinical applications of neuroscience could begin to construct a discourse of human life within the epistemology of the nervous system and brain.

As a point of departure, consider a talk given by Harvey Cushing to the College of Physicians of Philadelphia in 1902.¹⁶¹ Harvey Cushing is generally considered to be one of the founders of modern neurosurgery and a pioneering neuroscientist, in large part because he was among the first to vastly increase the survivability of patients during cranial operations by using a device that measured and controlled blood pressure -- a device he had learned about from his Italian colleague Riva-Rocci, and which he subsequently improved for surgical use. In a talk titled "Some Experimental and Clinical Observations Concerning States of Intracranial Tension," he reminded his audience that the modern clinical relevance of the brain could be dated "as early as 1811 [to] Ravina, an Italian experimenter, in the attempt to demonstrate the pulsation of the brain within the enclosed cranium" by "[inserting] a glass window in the skull." Abscesses, tumors, and other growths on the brain alter cranial blood pressure, resulting in different kinds of paralysis, mental deficit, and sensory loss. "Cerebral compression," a technique that Cushing used to order a general paradigm of gauging the "local and global" effects cranial pressure, brought into relation the form and location of a growth with a "pressure symptom-complex" of the body, which could be observed and recorded in clinical settings. The technique of intracranial vascular compression and relaxation developed within a medical body that connected the brain to the heart and lungs through their mechanical and visceral continuities. Afflictions of the brain were, however, only a special case of more general afflictions of the body, and clinical neurosurgery attended

¹⁶¹ Cushing, H. 1902. "Some Experimental Results and Clinical Observations Concerning States of Increased Intracranial Pressure." *The American Journal of the Medical Sciences* 124 (3): 375-400.

uniquely to lesions resulting from illness or injury, congenital defects in the cerebrum, or growths on the brain. This was not only because the nature of afflictions to the brain were the same as those that could strike any organ of the body. It was also because the effects of shifted cranial tensions on the brain could only be understood in relation to the sensory and motor capacities of the body, or the mental effects on the patient judged by the latter's behavior.

The main topic of Cushing's 1902 article was a new clinical device: an advanced trepanation instrument that enhanced the precision of the "window" on the surface of the brain and also the bulbs that exerted measured pressure on particular brain areas. Pressures and pulses exerted on the brain facilitated rigorous experimentation and diagnosis. Given a discrete pulse, the resulting changes in the brain's color, shape, and movement could be observed for prolonged periods of time. Drugs and small objects were routinely introduced to trace their effects on the brain and, by connection, the rest of the cardiovascular and pulmonary system of the body. If different anatomical locations of the brain (thought be responsible for a variety of motor and sensory functions) could be compressed or brought into a measurable vascular tension with some regularity, and if changes in the symptoms of the patient or animal were observed at the same time, then the cerebral pathology could be rationally ordered within an entire regime of man's mental (e.g., stupor, delirium, coma, apathy, aphasia, or drowsiness) and physical (e.g., numbness, vomiting, paralysis, epilepsy) faculties and deficits. Clinical neurosurgery, from the get-go, was borne of knowledge generated by functional cerebral localization. It employed a technique taken from the laboratory (localization) and applied it in the clinic

to the pathological development of abscess, lesions, blood clots, or tumors on the brain and the symptoms they evoked in the patient.

The use of these clinical techniques was not the norm in most medical clinics. Their tie to the cardiovascular life of the body was more than conceptual, it was also practical: brain and spinal surgery, much like experiments on animals, often resulted in the death of the patient. However advanced a theory of the nervous system's relation to disease, the fact remained that the human body rarely, in the clinic, survived invasive surgery. It is not surprising, then, that the Cushing's device is not only used to regulate pulses on the brain, it was also used to regulate the flow of blood into the cranium during surgery. Keeping the body alive was a real barrier to progress. In 1893 William Macewen, a pioneer of septic techniques for neurosurgery and, by connection, experimental devices, published his ground-breaking *Pyogenic Infective Diseases of the Brain and Spinal Cord*. This book was an advance in two respects. First, it was an encyclopedia of the triangular relations between the anatomy and physiology of the brain, the pathology of meningitis, abscess, and thrombosis, and the resulting forms of mental or physical ailment.¹⁶² It was also distributed as a basic medical textbook. Second, it explained how to extend the survival of the patient during surgery, chiefly through sterile, septic techniques and surgical procedures. Despite these medical and technical advances, and growing success by neurosurgeons, neurosurgery was regarded as a brute, drastic medical procedure applicable when other therapeutic measures were exhausted. It was

¹⁶² Green, R. E. 1967. "Sir William Macewan." *History of Neurological Surgery*, edited by Arthur E. Walker. New York, NY: Hafner.

not a specialized field of medicine until the first few decades of the 20th century and, by and large, physicians were trained to treat the brain as though it were any other organ of the body. Physicians cracked open skulls and cut nervous tissue as though they were setting a bone or ablating scar tissue well into the 1910s.

While cerebral localization made possible new neurosurgical procedures on the brain, its clinical application was -- conceptually, practically, and philosophically -- caught within the limits of the body. In its scientific and therapeutic aspects, neurosurgical practices, techniques and devices developed to both cure diseases of the brain and to observe their influence over the body. The emergence of neuroscience and neurosurgery in the clinic supposed, and reproduced, a general continuity between the physiology of nervous system, brain and the body as a cardiovascular machine. The pathologies affecting the brain were not unique to it. They could only be those that were already known to exist in the body. These were primarily tumors, abscesses, growths, and changes in blood pressure. All of 19th century medical neuroscience rendered cerebral function intelligible in relation to diseases, effects, and symptoms of the body. It was impossible, at least in the 19th century, to distinguish or imagine the brain as an organ with its own interiority or pathological domain.

From a medical perspective, as Cushing argued in 1902, operating on the brain should not be an immediate reaction to injury, for “experience will show that in cranial work, as in operations elsewhere, time ... is vastly secondary in importance to careful

homeostasis.”¹⁶³ The homeostasis of the body here refers to its overall health, its survivability through cranial surgery. The concept of homeostasis in relation to nervous system activity was widespread not only clinically, but scientifically, and not only with respect to the autonomic functions of the nervous system, but also to voluntary actions, speech, and other mental faculties. The function of neurosurgery, as the “mechanical side of therapy” akin to all surgery, is to relieve pain and rehabilitate the body; if no relief can be expected, no surgery should be performed.¹⁶⁴ At its birth, neurosurgery was limited to an extremely limited repertoire. Macewen, in his studies of brain pathology, had also emphasized the limit-horizon of the whole body when depicting the effects of brain abscesses and pressures. The brain was still read within the vascular and respiratory system of a mechanical body, the latter being the primary figure of life’s vitality. The rationality by which the central nervous system was configured as an object of experiment, medicine, and surgery required a particular kind of pathological body to serve as the condition for, and limit of, the intelligibility of the brain. This, again, was the whole body affected by tumors, abscesses, and so on. The life and death of a patient could not yet be indexed within an autonomous complex of mental or neural capabilities.

The cardiovascular body was not, however, the only one through which a rational relation of anatomy and function could develop neuroscience and neurosurgery. In 1870, Gustav Fritsch and Eduard Hitzig published a paper that demonstrated the fruitfulness of

¹⁶³ Cushing, H. 1905. “The Special Field of Neurological Surgery.” *Bulletin of the Johns Hopkins Hospital* 16: 77-87. Pg. 83.

¹⁶⁴ *Ibid.* Pg. 87.

electrical stimulation to empirical localization of cerebral pathological function -- particularly in the cerebrum.¹⁶⁵ Victor Horsley had been among the first (along with Macewan) to rigorously develop a method of cerebral localization, in the clinic, using electricity.¹⁶⁶ At least two applications were routine. The first was clinical, such that measuring electrical potentials in the brain and nervous system could be used to diagnose growths and tumors to be removed in surgery. The other use was experimental. By stimulating areas of the brain and observing the behavioral results (or, in the other direction, moving limbs and recording electrical potentials), nervous pathways could be charted. What these clinical and experimental uses of electricity relied on, to a great extent, were new recording and representational devices of nervous activity.

In 1886, for example, Horsley published a long report on experiments in an area associated with the control of muscle contraction known as the motor tract. His experiments on animals, drawn from cases in the clinic, augmented known localization techniques with a representational device. After anesthetizing an animal, "the surface of the brain over the motor region is freely exposed and its electrical excitability tested."¹⁶⁷

¹⁶⁵ Fritsch, Gustav, and Eduard Hitzig. 1960. "On the electrical excitability of the cerebrum." in *Some Papers on the Cerebral Cortex (American Lecture Series no. 332)*, edited by Gerhardt von Bonin. Bloomington, IN: Charles C. Thomas. See also: Young, Robert M. 1990. *Mind, Brain, and Adaptation in the Nineteenth Century: Cerebral Localization and Its Biological Context from Gall to Ferrier*. Oxford, UK: Oxford University Press.

¹⁶⁶ Greenblatt, Samuel H., ed. 1997. *A history of neurosurgery: in its scientific and professional contexts*. Park Ridge, IL: American Association of Neurological Surgeons.

¹⁶⁷ Horsley, B., and E. A. Schafer. 1886. "Experiments on the Character of the Muscular Contractions which are evoked by Excitation of the various Parts of the Motor Tract." *Journal of Physiology* 7: 96-110.

A small drum is attached to the target muscle in question and “connected by indiarubber tubing to a recording tambour, the lever of which writes upon a moving surface of smoked glaze paper on which the time in seconds and the duration of the excitation are also simultaneously marked.”¹⁶⁸ When controlled electrical currents are passed through a coil to “platinum electrodes” on the brain or “steel needles” in the spine, “the bulging of the muscle during contraction is registered.”¹⁶⁹ These were not simply representations of the brain’s activity but, more specifically, recordings of a particular muscle’s activation through specific neural pathways. Photographs of the anatomical lesions were often taken to match the record of the neural pathway. The metaphor of the brain as a telegraph was key, since, it was assumed, the electricity from the brain was the same as that which activated the muscle of the body. Horsley was seeking to reverse engineer a cartography of the neocortex, spinal cord and peripheral nervous system, into a geography of bodily muscles and sensory nerve-endings. Variably stimulate the neocortex, record the subsequent muscle contractions and relaxations, and then perform a lesion: this method was standard practice in electrically localizing functional cerebral areas.

Many famous neurosurgeons of the 19th century were also experimentalists, psychologists, natural philosophers, and scientists. David Ferrier, a Scottish neuroscientist, is among the most well-known. He split his time between the laboratory

¹⁶⁸ *Ibid.* Pg. 96.

¹⁶⁹ *Ibid.* Pg. 96

and the *West Riding Lunatic Asylum* in Yorkshire for most of his career.¹⁷⁰ He was a student of Alexander Bain, who had written ground-breaking treatises on the relation of mind and brain in several books, and who had advanced the localization hypothesis by arguing that specific mental processes were located in particular anatomical areas of the brain.¹⁷¹ Ferrier, on Bain's recommendation, traveled to Germany to spend time in the labs of Wilhelm Wundt and Hermann von Helmholtz, two founders of empirical psychology who had emphasized the psychophysical relation of mind and body within an experimental paradigm. Upon returning, he worked in the same hospital with John Hughlings-Brown, whose theory of motor-nerves would inspire Ferrier to discover the relation of faradic potentials and epilepsy in the brain of monkeys. Ferrier's own successes in both the laboratory and the clinic led him to publish two books that remain foundational in both neuroscience and neurosurgery.¹⁷²

The professional fluidity between experimental neuroscience and neurosurgical applications in the clinical was widespread. Most of the great figures of clinical

¹⁷⁰ Star, Susan L. 1986. *Regions of the Mind: Brain Research and the Quest for Scientific Certainty*. Stanford, CA: Stanford University Press. Harrington, Anne. 1989. *Medicine, Mind, and The Double Brain*. Princeton, NJ: Princeton University Press.

¹⁷¹ Bain, Alexander. 1850. *The Mind and the Body, Theories of Their Relation*. New York, NY: D. Appleton and Co. Bain, Alexander. 1902 (1855). *The Senses and the Intellect*. New York, NY: D. Appleton and Co. Bain, Alexander. 1899 (1859). *The Emotions and the Will*. New York, NY: D. Appleton and Co.

¹⁷² Ferrier, David. 1886 (1879). *The Functions of the Brain*. New York, NY: G. P. Putnam's Sons. This was his book of results from the experiments conducted in the laboratory. See also: Ferrier, David. 1880. *The Localization of Brain Disease*. New York, NY: G. P. Putnam's Sons. In this book he emphasized the clinical applications of these experiments and, in particular, a clinical diagnostic protocol for the detection of tumors and other diseases of the brain.

neuroscience in this period were well aware of, and contributed to, the conceptual and philosophical advances in the epistemology of the brain and nervous system. A handful of them -- Hughlings-Jackson, Crichton-Browne, Gowers, in addition to Ferrier, Cushing and Horsley -- founded the journal *Brain*, which continued well into the 20th century to offer a regular diet of theory and clinical practice. They knew that localization -- in its cardiovascular, electrical, mechanical, mental, sensory, and motor aspects -- was also an object of interest in philosophy, sociology, psychology, and in general the project to naturalize the human subject through physiological life. They applied the theory that nerve roots and endings in the spinal cord constituted a set of distinct relay organs coordinating both motor control and sensory “impressions” throughout the body. The distinction between sensory and motor was applied as much in the clinic as in philosophical reflections on the nature of the nervous system. If the brain was a relay (sometimes called “conduction”) organ, then “ingoing” sensory nerves (or “currents”) needed to be distinct from “outgoing” motor nerves. They knew well that the nervous system and brain were central organs of the mind. On this point, however, the clinical applications were more limited, for the problematization used in the clinic lay in the distinction between “reflexive” and “voluntary” movements of the body. In an 1888 article, for example, Horsley expanded his work in the clinic to include the “localisation of the centres for voluntary action and sensation in the brain.” By “voluntary,” however, he did not mean consciousness or agency. What Horsley and late 19th century neuroscience called voluntary actions were the functions of pathways distinct from, but homologous to, the muscle movements that resulted from reflexes. There was, as yet, no

neurophysiological theory that could explain how consciousness or agency were produced by the brain, but the hypothesis had already been proposed for some time that consciousness and agency originated and resided in cerebral processes.

This was not to say that the human brain, like the human mind, was not considered unique and superior to the nervous system. The psychological and philosophical interest in making a new science of the human mind turned precisely on the singularity of the human brain and nervous system. A major intellectual vein in which this developed was through evolutionary theory. Two axes of cerebral localization and nerve function -- as conduits for ingoing / outgoing and reflexive / voluntary nerve pathways of sensation, impression, and motorization -- were used in evolutionary arguments about the phylogenetic development of the central nervous system in plant, animal, and human life. Phylogenetic development was understood as linear, progressive achievements, and neurology introduced the nervous system as an organ of evolutionary adaptation. According to 19th century neuroscience, for example, the nervous system of plants had selected to adapt without developing its motor system; animals, on the other hand, did so, but did not develop a sensory system capable of transforming sunlight into energy. In this evolutionary rubric, humans, lower primates, and essentially all animals more or less share the same kinds of voluntary, reflexive, sensory and motor pathways. But they differ in the manner by which the species has developed along these axes. "Nerve tissue, in the lower forms of animal life," wrote H. Charlton Bastian, "is essentially subservient to the bringing about of movements in more or less immediate response to external shocks or other localized impressions, or of movements and

glandular activity as a result of impressions upon internal surfaces.”¹⁷³ The singularity of human beings, on the contrary, could be attributed not only to the fact that they had the most “advanced” and “complex” brain organs, but also that their voluntary nerve pathways were more numerous and highly developed than in any other animal. Thus the brain and nervous system are organs that mediate “extremely complex processes which have been *superadded*, or that have grown out of, the processes immediately excited in the Cerebral Cortex by the incidence of *ingoing* impressions -- and as a result of which *outgoing* stimuli pass over to the motor centres, for the performance of Voluntary Acts and for Intellectual Expressions generally.”¹⁷⁴ In the last forty years of the 19th century, the nature of the relationship between voluntary and reflexive, motor and sensory pathways of the brain remained a important rubric of both experimentation and discourse on the natural origins of the human as a species.

It was in this sense that, at least for late 19th and early 20th century neurology, the brain was a necessary but not sufficient organ of the mind. In 1887, Bastian published *The Brain as an Organ of Mind*, a vast treatise explaining how the human brain was part and parcel of a linear evolution of nervous systems across all organisms (plant, insect, animal). Bastian and many of his contemporaries certainly understood consciousness and the mind to be among the principle activities not simply of the brain but, more importantly, of the distributed central nervous system as a whole, within a phylogenetic

¹⁷³ Bastian, H. C. 1887. *The Brain as an Organ of Mind*. New York, NY: D. Appelton and Company. Pg. 23.

¹⁷⁴ *Ibid.* Pg. 614.

body playing an evolutionary game of survival. Calderwood, in his 1884 edition *The Relations of Mind and Brain*, made a point to emphasize “that the primary requisite for successful research” of the mind is “to compare the entire Nervous System of the several animals, and not merely the Brain.”¹⁷⁵ But if the continuity of the brain’s evolution were to be traced within all animals and organisms, then the brain, or at least certain areas of the brain, was nothing more than coordinating and distributive relays in the otherwise sensing and motoring life of the organism. Thus “volition,” “intelligence,” “emotion,” “reason,” and “cognition” are platonic faculties of a mind that correspond to specific areas of the brain, but each was tied necessarily to “sensorial activity” and to “motor centers.” Higher mental faculties residing in the brain were “superadded accomplishments,” acquired as the result of *homo sapiens*’ phylogenic development though empirical impressions developed in the material, neural connections of the brain. Philosophical empiricism and the evolution of the species were not only a condition, but also a limit, of conscious experience and mental life, a position largely indebted to major sociological and philosophical luminaries such as Herbert Spencer. The brain of the human being is thus nothing but a particular, evolutionarily adapted organ operating within the limits of a whole organism in its environment.

By way of example, take a chapter titled “Will and Voluntary Movements.”

Bastian argues that the brain is “‘the means’ by which ‘the motion of our bodies follows the command of our Will.’” The brain is not itself the seat of the will. If a being exercises

¹⁷⁵ Calderwood, H. 1884. *The Relations of Mind and Brain*. London, UK: MacMillan & Co.

will, says Bastian, this is because will is coupled with desire, which can only be attributed, in this case, to a body that senses the world. Voluntary and reflexive movements are particular pathways of the brain, commanded and employed by the fact of a sensing and motoring body in a living, sensual world. Just as the brain is stimulated by the sense of the body in the world, the brain integrates sensations, or “impressions,” of this world and thereby produce movements. Thus “will” could not be the only way to produce movements of the body: intelligence and cognition were also faculties of the brain that, as specific functional areas and pathways of neurons, could move the body; even the faculty of speech and language acquisition could not be separated from both the foundations and horizons of the body as a sensing and moving organism. In any case, the distinctions between reflex, learning (*qua* adaptation) and intention are naturalized. The brain is a movement producing device and it is also an organ through which humans voluntarily intend to do something. Such a theory applied even to that faculty believed unique only to humans: language. Quoting Thomson, Bastian argues that “language, in its most general acceptation, might be described as a mode of expressing our thoughts by means of motions of the body.”¹⁷⁶ It was indeed inconceivable that language as a faculty of mind could be dissociated, or abstracted, from the mechanical coordination required to produce speech. In Bastian’s day, acquiring language was a matter of developing “articulation;” the brain was the relay organ that allowed for training the relations

¹⁷⁶ Bastian, H. C. 1887. *The Brain as an Organ of Mind*. New York, NY: D. Appelton and Company. Pg. 602.

between thought and the motor patterns necessary to express them. Literacy could then develop as “accomplishments superadded to that of Articulate Speech.”

Four points of problematization were therefore crucial to an emerging rationality of natural life specific to neurology and its therapeutic applications in clinical neurosurgery in the 19th century. First, the anatomy and physiology of the nervous system, particularly the functional order of the brain in a whole body, developed along three axes: a/ in the body as a thermodynamic cardiovascular system, b/ in the body as an electrical conduction system of motorization and sensation, c/ in the phylogenic body as adaptation. Second, life began to be ordered through an experimental and clinical method -- functional cerebral localization -- the aim being to map the general mental, biological, and physical faculties of living bodies and patients onto the neural regions of the nervous system and a topography of the brain. In its medical context, localization referred to the method by which tumors, abscesses, and other pathogenic diseases were located on the brain. Third, a philosophy of mind relied on the results of cerebral localization to locate the species body and the “natural origins of life itself” within the development of motor, sensory, voluntary and reflexive neural pathways. This philosophy was also crucial to the naturalization of psychology and the emergence of, for example, pragmatism. Finally, evolutionary theories of phylogenetic adaptation made the development and survival of the species one of the conditions for a natural theory of mind common to all “living organisms.” Empiricism and utilitarianism were, in this regard, critical to giving the mind a natural, biological basis.

The paradigms and practices of 19th century neuroscience were anchored by the belief that the study of nervous and cerebral anatomy, physiology, and mental functions were a special set of functions of the body as a whole. The explanation of cerebral function or nervous affectations, for example, always made reference to the existence of the body, the patient and, in some cases, the species. This was especially true in some branches of psychology. William James, in his *Principles of Psychology*, takes it as axiomatic that the brain should be an organ of mind and the nervous system and organ of the body's homeostasis. When it came to mental events, however, nothing exists without a relation to the body: "it will be safe to lay down the general law," James wrote, "that no mental modification ever occurs which is not accompanied or followed by a bodily change."¹⁷⁷ This "law" was a major advance of psychology in the 19th century. It sought to naturalize man's psychological faculties in the experience of the body that is acting in the world, and it was aimed at undoing the "rational psychology" of the detached soul

¹⁷⁷ James, William. 1890. *Principles of Psychology*, vol. 1. New York, NY: Henry Holt and Co. Pg. 5. He goes on later to describe the advances of Herbert Spencer: "On the whole, few recent formulas have done more real service of a rough sort in psychology than the Spencerian one that the essence of mental life and of bodily life are one, namely, 'the adjustment of inner to outer relations.'" (6). But here, still, the brain is only an organ at the intersection of a mind that perceives given impressions sensed by the body, and which acts, reciprocally, through the body via a "nerve-physiology" that controls and commands the body's muscles and actions. These "conditions" for mental life were also of great importance to James' psychology itself which, belonging to the formative period of pragmatism, took it as central that the pursuit of particular ends and the choice of means in any situation the subject finds itself in are the "criterion for the presence of mentality in a phenomenon." (8) This radically expanded the purview of psychology (which is exactly what James lauded in Spencer's theoretical advances), so that "mind" is, in principle, evident in "actions such as are done for an end, and show a choice of means." (11)

that had for a long time held a place of privilege. Indeed, because the brain and the nervous system were rendered intelligible through the existence of a body that neuroscience and neurosurgery came to the fore and that, at the same time, the brain became an object of the human and social sciences. Naturalizing man's mental life entailed, in short, expanding the field of view of mental phenomena away from what had traditionally been located in the rational soul. It meant looking again at social and cultural life from a materialist perspective for a trace of what is specifically mental. It bears repeating that the brain was, at the end of the 19th century, only one, albeit special, organ of mind. At the very least, it could not constitute the mind on its own. The brain required a body in an environment, where actions have ends, for there to be consciousness at all.

The neurological body, in science and the clinic, was multiple. Even if electrical conductivity in the central nervous system conceptually registered experience and consciousness, the patient or subject's life in the clinic remained within the limited conditions of organic pathology. Cushing, Macewan, and Horsley insisted on the centrality of bodily experience not only as a condition of higher mental functions but, implicitly, as the limits for a rationality of the mind's constitution in the brain. This is not yet the moment when the medical or scientific imagination visualizes in the brain a whole domain of therapy *beyond* the homeostatic properties of the body. Even in the case of the brain's electrical activity, localization was a rationality of life limited by the evolution, adaptation, or the body as a cardiovascular or mechanical machine.

Neurosurgery was born of rather limited possibilities: to remove or lesion parts of the brain could repair a pathological body, and not much else. But it was slowly arming itself with a whole range of diagnostic devices, representational techniques, and therapeutic repertoires that were making its viability as a branch of medicine possible. Pathogenic diseases in the traditional sense -- infection, tumors, blood clots, etc -- were no longer the sole pathologies that could be treated by neuromedicine. The linkage with psychology began to strengthen and, early in the 20th century, it was possible to begin treating purely mental pathologies through surgery on the nervous system and brain. Neuroscience, meanwhile, charged ahead theoretically, promising to elucidate the natural conditions of mind and complete the neurophysiology of the human subject. In both cases, however, the body conditioned and limited the brain's intelligibility.

2.3 Neurosurgery expands into a specialized field

In the early 20th century, the epistemology of the brain's nervous activity became emancipated from the central nervous system tied to the body. This emancipation allowed for the brain to be the principal, if not only, organ of mind. This trend also made possible a conceptual inversion: where various forms of the body set the conditions and limits for the intelligibility of the brain, so, by the mid-century, was the brain dominant in relation to the body on the question of mind. Among the different ways one may trace this shift in the epistemology of nervous activity and its relation to the mind, shifts in the clinic are most relevant to our question here -- that is, tracing the emergence of cognizant life.

Between 1905 and 1935, Harvey Cushing published a series of remarkable reflections on the field of neurosurgery. They are interesting because they neatly organize a turn in the practice of medical neurosurgery, principally regarding the relation of care between the patient and the neurosurgeon, which had already begun, even as early as 1905, to detach itself from the strict confines of neuropathology and the body. When and how was a neurosurgical operation a form of therapy, especially a desirable one, how was this known, and what forms did it take? These questions dramatically expanded in the early 20th century. The debatability of a predictable relationship between the anatomy of the central nervous system and the physiology of the medical body made it difficult, for some time, to legitimate a special branch of medical surgery independent of neuropathological localization: if it was unclear where a tumor was located, how could surgery be effective? But the improvement of devices that recorded changes in the brain's cerebral activity improved the accuracy of diagnosis. Combined with the routinization of septic techniques and rudimentary machines that controlled blood pressure during operations, the survival of patients during an operation was lengthened. It was in this context that Cushing's 1905 talk sought to specialize neurosurgery into a sub-field of medicine. Two related claims grounded the neurological argument. First, the brain and central nervous system, localization has shown, are not organs like any other; both begin, around the turn of the 20th century, to occupy a space outside of traditional pathology, and the *physician* (or "internist") requires an expert training in its science and medicine. Second, neurosurgery expands the physician's repertoire to include new therapeutic

possibilities, particularly in “certain maladies for which the outlook is otherwise most forlorn.”¹⁷⁸

The prevailing wisdom in most medical circles was that neuroscientific advances commanded the development of neurosurgery as a domain of medicine. Localization, despite its successes, was not sturdy enough to expand from the experimental laboratory to the clinic. There was too much cerebral variation among real patients. Medicine would have to wait. Cushing insisted that the variations among patients of the relations between anatomy and brain function were not evidence of localization’s flaws but, rather, a *medical* issue deserving of the neurosurgeon’s prolonged care and investigation. Variation is implicit in medicine. As sterile, septic, and recovery techniques improved, so was the relation between the neurosurgeon and the patient extended and, thereby, cultivated. Each case of brain injury is unique and requires the accumulated experience of the neurosurgeon’s knowledge and care. Technology afforded the time and accuracy to detect these individuated pathologies. “Brain tumors,” wrote Cushing in 1920, reflecting on his 1905 speech, “are common, far more so than I believed to be the case when this same statement was made fifteen and again ten years ago.”¹⁷⁹ No tumor was the same: “we must take tumors in certain situations or, better still, tumors of certain kind in certain situations, and give them special study.”¹⁸⁰ Cushing’s articles on neurosurgery forcefully

¹⁷⁸ Cushing, H. 1905. “The Special Field of Neurological Surgery.” *Bulletin of the Johns Hopkins Hospital* 16: 77-87. Pg. 78.

¹⁷⁹ Cushing, H. 1920. “The Special Field of Neurology After Another Interval.” *Archives of Neurology and Psychiatry* 4: 603-637. Pg. 615.

¹⁸⁰ *Ibid.* Pg. 617.

introduced a new theme of medical neurosurgery: the medical, and not scientific, imagination of cerebral and neural therapeutics expands the repertoire by which the physician may attend to the welfare of the patient.

This theme, which Cushing would develop institutionally and medically until 1935, expanded the role of the neurosurgeon as a care-taker of a patient's welfare and, by the same token, extended the modes by which the life of a patient could be rendered neurologically. On the one hand, the division between the experimental work of the scientist and the clinical work of the physician must be consolidated: the heterogeneity of singularities of brain damage, which appear from the philosophical critic's point of view as irregular and perhaps dubious localization, appear to the neurosurgeon as the reason for specialized, protracted care: "the real leaders of to-day in surgery owe their place not to any special brilliancy in operative manipulations, but to their laborious experimental investigations of certain problems of disease, whereby has been disclosed a rational mechanical basis for a surgical therapy."¹⁸¹ On the other hand, surgery itself should *not* be understood as a measure to be taken when "the condition [of the patient] cannot be made much worse," but rather as a desirable measure to be taken early in therapy. The neurosurgeon's care becomes slightly detached from the epistemological conditions and limits of 19th century neurology and re-attached to medicine by a common ideal: "the chief of [the neurosurgeon's] duties as a physician [is] to prolong life and at the same

¹⁸¹ Cushing, H. 1905. "The Special Field of Neurological Surgery." *Bulletin of the Johns Hopkins Hospital*, 16: 77-87. Pg. 78.

time alleviate suffering,” and beyond this to make life “more livable.”¹⁸² The “rational basis for surgical therapy” does not, therefore, displace functional localization in neurology. It locates within it, probably for the first time, a new medical imperative to patient welfare. The manner in which the central nervous system and brain are problematized as experimental objects is now manifested through an ethic of care and the practice of patient health.

In 1919, Cushing and a number of other leading neurologists returned from the French war front with a proposal for a National Institute of Neurology.¹⁸³ Psychiatry, like neurosurgery, argued Cushing, had become relatively detached from practical medicine. The former had been sequestered to the insane asylum; the latter limited to the surgical wards of hospitals; both had experienced long droughts of stagnation. But during the war, he wrote, both professions found new ground for “common ends” which could be re-introduced into normal medical education. “The mental abnormalities seen in patients suffering from organic lesions susceptible to relief from surgical measures,” he stated to his psychiatric colleagues, “would constitute a profitable source of study for those occupied with the disorders of the mind, doubly so under the circumstances of the abrupt

¹⁸² *Ibid.* Pg. 79.

¹⁸³ Cushing had served at the Base Hospital 117 in La Fauche, France., “where sufficient time and opportunity were afforded for careful study and analysis of officers and men suffering from the more serious grades of war neuroses.”

amelioration of the mental disturbances which may follow an operation.”¹⁸⁴ The need was reciprocal, Cushing argued: psychiatry could offer to neurosurgeons an “interpretation of dispositional and behavioristic changes as they unfold after a successful operation.”¹⁸⁵ In this regard, the liaison of clinical neurology with psychiatry was not only directed toward advancing each domain, but also toward ushering into a new practice of medicine into the fold of standard clinical practices.

Cushing’s reflections on the new role of the neurosurgeon were one aspect of a larger force of institutionalization that, in the post-war period, routinized neurosurgery in the clinic and expanded the range of mental and organic diseases it responded to. During the first world war, a number of British and American neurosurgeons and psychiatrists were called upon to treat soldiers who had been exposed to nerve gas.¹⁸⁶ The “war neuroses,” as it was called, presented the clinicians with diseases that that were both “organic” and “functional:” consequent to physical injury of the nervous system and

¹⁸⁴ Cushing, Harvey. 1919. “Concerning the establishment of a national institution of neurology.” The annual address given at the 75th meeting of *The American Medico-Psychological Association*, Philadelphia, PA, June 18-20. *American Journal of Psychiatry* 113-129.

¹⁸⁵ *Ibid.* Pg. 117.

¹⁸⁶ In a telling passage describing the effects of the war on the practice of medicine, Cushing remarks that “In view of the great problem relating to the war neuroses which called for united efforts from alienists, psychiatrists, and neurologists, and of which you have heard so much at this session, it is probable that no body of medical officers was more influenced by the circumstances of the war than they. Nothing could more effectively have bridged the gulf which was deepening between those who cared for the insane and the physicians or neurologists who, whether or not they called themselves psychiatrists, were dealing with the psycho-neuroses in open disagreement regarding recent theories of psycho-analysis and psycho-therapy.” *Ibid.* Pg. 117.

consequent to the trauma, stress, anxiety, and fear of war, respectively.¹⁸⁷ Not only did psychiatrists and neurologists find a common subject in the care for soldiers affected with nervous disease, and indeed discover functional disorders of the nervous system, they also developed hospitals designed specifically for their treatment. The promise of a hospital specific to neuropsychiatric diseases should, they argued, go beyond describing new cases in the old language of symptoms. In cases that “affect the intellect, the emotions, and the will,” neurology presented psychiatry with the opportunity to “look beyond symptomatic classification,” and “think in terms of brain rather than in terms of mind.” The experience of treating the war neuroses, primarily in their “functional” expression, persuaded Cushing and his colleagues that treating it also prepared them well for returning home and addressing psychiatric domains, not simply in the treatment of the insane but, moreover, the treatment of “civilian neuroses” and “the neurological problems of civil life in general.” (125)

¹⁸⁷ Dercum, Francis X. 1919. “So-called Shell Shock: The Remedy.” *Arch. of Neur. and Psych.* 1 (1): 65-76. Schwab, Sidney. 1919. “The War Neuroses as Physiologic Conservations.” *Arch. of Neur. and Psych.* 1 (5): 579-635. Cushing, Harvey. 1919. “Concerning the establishment of a national institution of neurology.” The annual address given at the 75th meeting of *The American Medico-Psychological Association*, Philadelphia, PA, June 18-20. Printed in *American Journal of Psychiatry*, 113-129. Page 124: “In view of the great problem related the war neuroses which called for united efforts from alienists, psychiatrists, and neurologists, and of which you have heard so much at this session, it is probable that no body of medical officers was more influenced by the circumstances of the war than they. Nothing could more effectively have bridged the gulf which was deepening between those who cared for the insane and the physicians or neurologists who, whether or not they called themselves psychiatrists, were dealing with the psycho-neuroses in open disagreement regarding recent theories of psycho-analysis and psycho-therapy.”

The marriage of psychiatry, neurology, war, and therapy grew extremely rapidly in the years after the first world war. Psychoanalysis, lobotomy, and other forms of nervous-based “therapy” were quickly reoriented to a civil population who were introduced to “functional” nervous diseases as a matter of medical fact. The nervous system as a rationality of life enters into a period of expansion: it moved from the species-body that senses and motors to a specialized clinical field closer to everyday life, human therapy and mental hygiene.

I wrote earlier that a major class of devices in neurology were localization tools that represented cranial activity in the brain relative to the movement of muscles, or patterns of sensation, on the body. In the 1920s, such technologies took a decisive and important turn. In the period after the first world war, Hans Berger, a German psychologist at Jena who had for several decades sought to discover the psycho-physical basis of mind, developed a machine that is today widely known and still used: the electroencephalogram, or E.E.G. The development of this instrument was the result of a much longer quest by Berger to found a theory of psycho-physical interaction of mind and body as the continuous transformation of energy. He sought to develop both a theory of how the mind exists as psychic energy -- i.e., how physical forms of energy could be converted, by the brain, into psychic energy that accounts for mental phenomena, or consciousness -- and a technical device by which he could record this activity and, thereby, the activity of the mind. In the first decades of the 20th century, Berger’s search for a theory of cerebral energetics led him to examine the relation of cerebral blood, heat, and chemistry to psychical states of pleasure, pain, or discomfort. These experiments

largely resulted in failure. Only relatively late in his career did his inquiries into electrical energies overcome technical issues, by using a large galvanometer and techniques borrowed from electrocardiography. By placing electrodes on the scalp of patients, Berger was able to record the electrical activity distributed across the brain. “With a variety of electrodes and condensers,” Historian David Millett notes in a recent paper that Berger “was finally generating high-quality EEGs that revealed distinct patterns of electrical activity -- waveforms that changed with the psychological state of his subjects.”¹⁸⁸ He gave mental tasks to his patients to perform while recording their brain activity; he applied the technique to epileptics, the demented, patients with tumors, and so on.

The EEG is significant not only because of its technical innovation, but because of the discovery of alpha and beta “waves” of electrical activation *internal* to the brain itself. After hundreds of EEGs, Berger was the first to posit that alpha waves correlated with mental activity that was interior to itself -- “the physical concomitants of conscious phenomena” -- while beta waves correlated, on the other hand, to the bare physical regulation of the body -- the “metabolic activities of cortical tissue.”¹⁸⁹ As Millett writes,

¹⁸⁸ Millett, David. 2001. “Hans Berger: From Psychic Energy to the EEG.” *Perspectives in Biology and Medicine* 44 (4): 522-542. Pg. 537. See also Haas, L. F. 2003. “Hans Berger (1873-1941), Richard Caton (1842-1926) and electroencephalography.” *J Neurological Neurosurgery* 74 (9): 7-9. Pg. 9.

¹⁸⁹ “Hans Berger: From Psychic Energy to the EEG.” Pg. 539. Today alpha waves are sometimes referred to as Berger waves. See also: Berger, Hans. 1969. *On the electroencephalogram of man: the fourteen original reports on the on the human electroencephalogram*. Maryland Heights, MO: Elsevier Science. Pg. 47. Originally published as Berger, Hans. 1929. *Über das Elektrenkephalogramm des Menschen*. *Archiv f. Psychiatrie u. Nervenkrankheiten* 87: 527-70.

the results of Berger's discoveries transcended "contemporary debates on the structural architecture of cerebral function," principally defined by the localization hypothesis.¹⁹⁰

Why? Because what is central here is the introduction of the idea that the brain has activity that is *internal to itself* and that, more specifically, consciousness and the mind corresponds to a specific, delimited pattern of internal brain activity. In short, while for the 19th century the psychiatric foundations of consciousness could be drawn only in relation to sensory-motor mechanisms and actions of the body, Berger discovered, through the EEG, that psychological consciousness had its own physiological substrate *independent* of the body's motoring and sensing capacities. One can see how the development of the EEG was significant to the rapidly developing field, after the 1950s, of brain imaging.¹⁹¹ It was not simply because Berger had developed an imaging technology himself, but because he had introduced the idea that the mind had its own,

¹⁹⁰ "Hans Berger: From Psychic Energy to the EEG." Pg. 540.

¹⁹¹ For a number of reasons, brain-imaging technology, and the central idea proposed by Berger that the mind and consciousness had its own physiological substrate not connected with the activity of the body, did not become popular until the mid-century. One major reason is that Berger's reclusive nature led him not to publish his work early during his research. But a more important reason is that, generally speaking, his work in Germany was suppressed. While Berger thought he could connect his research results with the experimental paradigms set up by Wundt and von Helmholtz, he never succeeded and most colleagues never respected Berger enough to try. At the same time, the localization hypothesis remained the dominant view. Berger's ideas were largely understood to be an assault on localization even though it remains, today, perfectly obvious that both have emerged side by side and, moreover, have in fact joined into a single set of ideas under the rubric of cognitive neuropsychology. In any case, as I will show below, it was the birth of cognitive science in the form of cybernetics that made it possible to understand how a neural substrate could exist for the individual's psychology independent of sense and motoring faculties. Only after those revolutions in cognitive science did it become important to represent mental activity interior to itself as the capacities of a neural brain.

independent, and internally-relevant physiological substrates that could be seen through recordings and traces of the brain's electrical and chemical processes.

In the period after Berger's development of the EEG, the functions of the brain could be ordered more closely to the personality of individuals, particularly in clinical neurology and psychophysiology. It is not simply the case that the brain has its own internal rhythms, but that the brain has its own interiority, laws, and facticity; and this facticity corresponds to the personality of distinct persons and minds. The brain's functioning became the physical substrate not only of mind, but also of consciousness as a first-person phenomenon. The reasons for this go beyond the development of the EEG alone, as I shall discuss in a moment. What begins to take hold is the notion that the brain's neural activity is internal to itself and is the source of self-consciousness, and that this interiority is the condition of mind.

It might be thought that the discovery of the brain's ipseity challenged the localization thesis. In fact, the brain's ipseity leveraged the notion of functional localization, geared less toward sensory or motor movements of the body, and more towards mental and psychiatry life. The ipseity of the brain also began a new relationship of patient care, mental pathology and experimentation. Mental hygiene -- so popular in the 1940s and 50s -- was part and parcel of the move to see the brain as the source of the self. Both forms of neurological inquiry into the nature of the brain as an organ of mind, sense, experience, and the body were critical. This is not to say that the brain stopped having a functional relation to the activities of the body. In fact, psychosomatic and psychoanalytical theories of mind and consciousness explicitly sought to make the

relation of the pathological mind expressive in symptoms of body and behavior. There are so many new forms of thought and science in this period about the relation of a mind internal to itself, located in the physiological processes of the brain, and their expression in body and behavior than can be recounted here. The brain's internal activity, however, begins to have a determinant role in the symptoms and behaviors of the body. Let us consider one such example of the new forms of relation that appear in the clinic when the ipseity of the brain expresses itself in the body.

In the 1920s, Ernst Kretschmer, a German neurologist and psychiatric leader in psychosomatic theories, produced a series of psychological reports on the relation between bodily constitution and the dispositions of personality. What particularly interested him in the clinical studies these reports drew from was the relation of consciousness and unconsciousness in mental pathology. He posited, for example, that certain forms of hysteria which began in conscious form could be taken over by the autonomic nervous system; they would become habituated and regulated by the unconscious. The function of the brain, as a system that mediated both the order of higher mental processes and the behavior and constitution of the body, was central in this move from consciousness to unconsciousness. Among the diverse pathologies Kretschmer encountered in his clinical studies was one that he classified under the term “*apallische syndrome*,” the term derived from the Greek word *pallium*, meaning cortex;

hence *apallium* indicates “without cortex.”¹⁹² It describes a patient who appears to have lost all higher mental functions and even self-awareness but still “produces symptoms of hysteria” expressed by random movements and vocal articulations. Although the patient was profoundly brain damaged as a result of hysteria and illness, the symptoms of hysteria, he thought, had transferred to the operations of the unconscious.

Kretschmer’s 1940 report is often taken to be one of the first reports of a patient in a vegetative state because the symptoms indicate vegetativeness. Be that as it may, I think this claim is misleading. What I have tried to show in this section is that there was a general trend, clinically, whereby the brain’s activity was coming to have a relationship to itself, and that this ipseity was refashioning its relation to the body. Enumerable neurophysiological and psychological theories in this period emerged to make sense of this new form of relation. Many of those theories -- psychoanalytical, psychosomatic, etc. -- may help explain the conceptual and clinical origins of cognizant life and the vegetative subject. In my view, however, the major pillar on which cognizant life was made intelligible was what, in the early 1940s, founded cognitive science; and this was cybernetics. Cybernetics needs to be understood as the foundation of what is today the dominant science of the mind. Indeed it remains one major science of the mind (along with other branches of psychology which the philosophical foundations of cybernetics influenced) in the 20th century, and it is within this framework that cognizant life was

¹⁹² Kretschmer, Ernst. 1940. “Die appalische Syndrom.” *Zeitschrift für gesamte Neurologie und Psychiatrie* 169: 576–579. See also: Kotchoubey, Boris. 2005. “Appallic syndrome is not appallic: is vegetative state vegetative?” *Neuropsychological Rehabilitation* 15 (3/4): 333–356.

made possible. The science of the mind of the 20th century -- which we call cognitive science -- completes the operation of “emancipating” the mind from the body. It begins basically from the natural, physical ipseity of the brain as the basic tenet for remaking a science of the mind. Let us turn to it now.

3. Cybernetics, cognitive science and an analytical philosophy of mind

In the mid-20th century, empirical inquiry into the nature of the mind as a function of nervous system that had begun in the 19th century formalized into a scientific program under the banner of cybernetics; today this science is known as cognitive science. Cognitive science (even if its current form and reach remain highly different from cybernetics) owes its conceptual and philosophical foundations to cybernetics, and shares with it the same project: *to mechanize the mind*, and thereby give it a naturalist, physicalist explanation.¹⁹³ This science of the mind was fundamentally grounded not only in cognition, but in cognition as computation. When we say today, for example, that “my brain” is responsible for x, y or z behavior, what we mean is that cognitive processes “in” the brain account for the production of a behavior, feeling, etc. Indeed, behind the notion that the brain’s own activity is central to our subjective life lies the notion of the brain as an embodied, self-organizing and auto-regulating cognitive machine. It is

¹⁹³ The expression comes from a book that I will go to heavily in this section. Dupuy, Jean-Pierre. 2009. *The Mechanization of Mind: On the Origins of Cognitive Science*. 2nd ed. Cambridge, MA: MIT Press. The book I am using is the 2nd English edition of the book. The first edition was published by Princeton. I recommend the second edition because it includes a “Preface to the MIT Press Edition” which expands the philosophical arguments of the book by placing them in the context of contemporary nanotechnology.

difficult to understate, furthermore, how important contemporary cognitive science has been in advancing the clinical neurosciences while also shaping nearly all of popular discourse on the brain and the development of technologies of the mind. Indeed, hardly a day passes that we don't read about how our "brains" are the source of our "selves." Behind this fact of our lives lies the science of the mind as computational cognition.

Cognitive science today is greatly different from its origin in cybernetics. It owes its distinction to its link with the analytical philosophy of mind, a union that would never have been accepted by the cyberneticians. The consequences of this marriage are what this chapter needs to grasp to understand the implications of the brain and mind's "emancipation" from the body via cognition. Despite its difference from cybernetics, however, cognitive science retains nearly all of cybernetics' basic principles about a science of the mind. In this section, I will lean heavily on a book by Jean-Pierre Dupuy to chart this shared origin and to describe what makes cognitive science distinct. Both points will allow us to link a central ambiguity in cognitive science to an ambiguity in the life of the vegetative subject. The term "cognizant life," which I have coined to refer to the bare, cerebral elements of consciousness that define the presence of a "person," takes its name not only to rhyme conceptually with "cognition," but to centralize a particular assumption about the mind made in cognitive science: the natural, physicalist science of the mind in cognitive science perpetuates a philosophy of mind *without* a subject. Cognitive processes, Dupuy argues, are merely computational processes of a mechanical mind that eat away at the notion of the subject. Here, then, is precisely the enigma of "life" concentrated in the vegetative subject: that while its brain remains active, it is

unclear whether a person is conscious; i.e., while there *may* remain cognitive processes, it's unclear they are those processes performed by a *human* subject. A brief detour is necessary to understand how cybernetics, which is to say the mind as cognition, was founded.

The history of neuroscience traced above constituted, in the first decades of the 20th century, the basis of a neurophysiological psychology. Two other branches of psychology were also in vogue during this period: introspection and behaviorism. Whereas introspection grounded its study in the supposition that the functional organization of mental events constitutes mind, behaviorism refused to accept that mental events existed at all, arguing instead that psychology could be understood in behavioral terms only. By behavior was meant the relation of effects between an organism and its environment: behavior is a function of the stimulus of the environment on the organism and the reaction of the organism in the environment.¹⁹⁴ Neurophysiological psychology was also tied, as I noted above, to cerebral localization. In the late 19th century this neurophysiology was complemented by “neuron doctrine.” Neuron doctrine argues that the nervous system is made up of individual cells, called neurons, and that neurons have particular properties (synapses, transmitters, etc) that govern the functioning of neural networks. While psychologists debated the proper method for the study of mind (behavior, introspection, experimentation), in neurophysiology a new mechanism of possible interaction between mind, body and brain emerged: the neuron.

¹⁹⁴ Skinner, B. F. 1938. *The behavior of organisms: An Experimental Analysis*. Cambridge, Massachusetts: B. F. Skinner Foundation.

The main achievement of neuron doctrine, as far as our study is concerned, was to discover that neurons “fire;” that this firing depends on thresholds called “action potentials;” that their firing spreads across the network of relations of neurons in which the firing neuron is located; and that one neuron’s firing can eventually influence its own subsequent firings -- i.e., that the neuron network’s activity may be circular. What Santiago Ramon y Cajal, an early champion of neuron doctrine, and others showed was that the brain is constituted by various types of neurons and networks. Neurons in the cerebellum, for example, were thought to function as areas of motor coordination; those in the posterior lobes were thought to function in vision; each area relies on different kinds of neurons. Each neuron network has its own set of afferent and efferent pathways. In short, if the localization hypothesis had claimed that the relation of mind to body interacted in the nervous system, neuron doctrine demonstrated that the interactions in the nervous system operated through the properties of individual neurons in reticular formations that, in turn, also had properties and functions of their own which could possibly be localized.

In 1943, two foundational papers of cybernetics emerged in this intellectual environment. The first, titled “Behavior, Purpose, and Teleology,” was published by Arturo Rosenbleuth, Norbert Wiener, and Julian Bigelow; the second, titled “A Logical Calculus of the Ideas Immanent in Nervous Activity,” was published by Warren

McCulloch and Walter Pitts.¹⁹⁵ Wiener *et al* enter the debate in psychology by proposing a classification for the “behavioristic study of natural events,” thereby rejecting introspection.¹⁹⁶ The classification they propose -- between purposeful and non-purposeful behavior -- attacks a category long held to be a privilege of functionalism. For Wiener, purpose denotes “that an ‘object’s’ behavior may be interpreted as directed to the attainment of a goal.”¹⁹⁷ They anticipate the criticism that discerning “purpose” in behavior may be a matter of interpretation; that is, of *meaning*. Their response comes in two parts: first, the purpose of a behavior is the result of voluntary acts -- an “object” chooses a goal and the motor-sensory coordination follows by reflex. Second, the “purpose of voluntary acts is not a matter of arbitrary interpretation but a *physiological fact*.”¹⁹⁸ Although this conception is inherited from the localization thesis in neuroscience, Wiener writes that it had not yet explained “the mechanism of voluntary activity.”¹⁹⁹ But behind this claim lies a certain assumption regarding meaning: that it is not a conditioning principle of behavior but, rather, something we ascribe to behavior; i.e., that meaning emerges from behavior itself.

¹⁹⁵ Rosenbleuth, Arturo, Norbert Wiener, and Julian Bigelow. 1953. “Behavior, Purpose, and Teleology.” *Philosophy of Science* 10 (1): 18-24. McCulloch, Warren, and Walter Pitts. 1943. “A Logical Calculus of the Ideas Immanent in Nervous Activity.” *Bulletin of Mathematical Biology* 5 (4): 115-133.

¹⁹⁶ “Behavior, Purpose, and Teleology.” Pg. 18.

¹⁹⁷ By “object,” Wiener *et al* refer to the particular entity whose behavior is being observed. Importantly, objects can be any form of living organism and they can also be machines. “Behavior, Purpose, and Teleology.” Pg. 19.

¹⁹⁸ “Behavior, Purpose, and Teleology.” Pg. 19.

¹⁹⁹ “Behavior, Purpose, and Teleology.” Pg. 20.

In order to explain the mechanism of voluntary activity, Wiener draws an analogy between living organisms and machines. Both may behave in ways that are “intrinsically purposeful.” This is not because those behaviors “serve” a purpose (the way a clock serves to tell time) but because they are directed at a particular end, “a final condition.” A clock’s behavior may be orderly, but its behavior does not aim at a particular end. A torpedo, on the other hand, redirects its behavior over time based on the shifting position of its target and aims towards a final condition: reaching the target. The same could be said of the behavior of children playing tag. For Wiener and his colleagues, both the torpedo and children exhibit analogous purposeful behavior; both control the “course of behavior” to arrive at a particular end. Given this definition of “purpose,” Wiener goes one step further: purposeful behavior may be “teleological” if it is guided by a feedback mechanism, or it is “non-teleological” if it is not. Feedback denotes how part or all of the output of an object’s behavior reenters as its input. It comes in two forms: positive and negative. If positive feedback reinforces a behavior, negative feedback corrects the behavior of an object via “margins of error at which the object stands at a given time with reference to a relatively specific goal.”²⁰⁰ Voluntary actions are therefore produced by “teleological mechanisms” and physiologically observable in feedback cycles that, particularly in its negative sense, reintroduce the effects of the object’s behavior as “signals from the goal” in the form of a “margin of error.” Teleology, here, makes absolutely no reference to “final causes,” only to mechanisms. Thus there is no mystery

²⁰⁰ “Behavior, Purpose, and Teleology.” Pg. 19.

to voluntary actions; one can study them as a particular class of generic behaviors, purposeful behaviors, and observe their physical mechanisms.

Two important implications govern the term teleological mechanism. It makes no difference whether teleological mechanisms are implemented in servomechanisms or in nervous tissue: from the perspective of behavior, both are purposeful and voluntary insofar as they produce a behavior guided by a feedback system.²⁰¹ If “broad classes of behavior are the same in machines and in living organisms,” their implementation is merely a *model* of that purposeful behavior.²⁰² The relation to machines -- which can be built by humans -- is therefore more than analogical, it is *experimental*. For if, as Wiener argues, voluntary behaviors are immanent in the teleological mechanisms themselves, then building machines that reproduce the same purposeful behaviors as human beings means discovering the mechanisms that work in the nervous system; humans and machines are simply ontologically equivalent models of behavior. One need not have recourse to any mental construct to explain purposeful and voluntary behaviors of humans; one need only determine the nature of the “behaviors” via the mechanisms that make them possible.

The second implication concerns *meaning*. “What the expression ‘teleological mechanism’ was meant to signify,” writes Dupuy, “was the capacity of certain complex

²⁰¹ As Wiener and his colleagues argue on page 20: “The analogy with the behavior of a machine ... is so vivid that we venture to suggest that the *main function of the cerebellum* is the control of the feed-back nervous mechanisms involved in purposeful motor activity.”

²⁰² “Behavior, Purpose, and Teleology.” Pg. 22.

physical systems, through their behavior, to mimic -- to simulate -- the manifestations of what in everyday language ... we call purposes and ends, even intention and finality.”²⁰³ The point was not only to show that behind any appearance of meaning or intentionality lay “only a causal organization of a certain type,” but that meaning *results* from causal, physical processes *per se* without the need to postulate an *a priori* subject. “For the cyberneticians,” Dupuy continues, “meaning is by its very nature counterfeit: its essence is confused with its appearance.”²⁰⁴ The machine’s behavior, for the cyberneticians, was the essence from which meaning springs. This argument was crucial to supporting what Wiener and his colleagues wanted to insist on as an ontological equivalence between machines and living organisms. Machines and living organism which exhibit the same behavior are ontologically equivalent because the essence of being and meaning is *simulation*: “to simulate,” or to model, “[the] essence is to remain true to it, since simulation amounts to actually duplicating it.”²⁰⁵

Near the end of 1943, McCulloch and Pitts published an influential paper on the relation of logic, computation, and the physical properties of neurons. From a physiological perspective, they argued, neurons can be understood as “all-or-none” in character: they either fire or they do not. In an earlier paper, McCulloch argued that the binary activity of a neuron is “factually equivalent to a proposition” in the logical sense (e.g., “mud is brown”). “Physiological relations existing among nervous activities,”

²⁰³ *The Mechanization of Mind*. Pg. 9.

²⁰⁴ *The Mechanization of Mind*. Pg. 9.

²⁰⁵ *The Mechanization of Mind*. Pg. 9.

wrote McCulloch, “correspond ... to relations among propositions.”²⁰⁶ If, therefore, one “[records] the behavior of complicated nets in the notation of the symbolic logic of propositions,” what one is recording is really reasoning.²⁰⁷ What then is the behavior of neural networks if not to reason and, therefore, to produce some form of knowledge (or, as McCulloch and Pitts say, the “ideas” immanent to the nervous system)? This reasoning takes the form of computation.

In contrast to what is today understood by the term computation,²⁰⁸ here the meaning refers to computational logic in the vein of Hilbert, Russell, or Frege; i.e., a formal language that could objectively describe phenomena with corresponding proofs, inferences, etc. Computation refers to the linguistic roots of analytical philosophy (about

²⁰⁶ “A Logical Calculus of the Ideas Immanent in Nervous Activity.” Pg. 116.

²⁰⁷ “A Logical Calculus of the Ideas Immanent in Nervous Activity.” Pg. 117. As they expand a little later in the paper: if for “each reaction of a neuron there is a corresponding assertion of a proposition,” then it “implies either some other simple proposition or the disjunction or conjunction ... of similar propositions, according to the configuration of the synapses upon the threshold of the neuron in question.” That is to say that an equivalence between the steps of reasoning in formal logic and the activity of the nervous system itself.

²⁰⁸ Today, computation refers to the activity of computers, which are very different kinds of machines than those posited by McCulloch. Why? Today’s computational machines, and the dominant idea they take in cognitive science, are presumed to compute *symbols*, which is to say that they compute *representations*. In cognitive science, to speak of representations or symbols is not only to speak of the syntax or grammar that postulates the logical relations between any number of representations and symbols, but also to assume that they have a semantic content. Nothing could be more foreign to cyberneticians than that definition of computation; for, from the cybernetics point of view, computation is *purely mechanical and entirely devoid of meaning* even if, of course, the activity of that computation can produce behaviors that appear to have meaning. See *The Mechanization of Mind*. Pg. 6: “Computation as cybernetics conceived it is not symbolic computation; that is, computation involving representations. It is purely ‘mechanical,’ devoid of meaning.”

which more will be said shortly) and its aim is to ground an objective theory of knowledge without reference to subjectivity or psychology; i.e., without reference to the first-person experience of a subject in order to make meaning or think.

There is one more aspect of computation, meaning, and physics that is necessary to connect with cognitive science. Gödel, the great mathematician of the 19th and 20th century, demonstrated that physical laws were computable, which is to say that physical causality can be solved by logic. Not only, then, was physical causality computable; if computation was itself the activity of the nervous system in living organisms then the objective bases of analytical philosophy could be drawn in relation to the activity of the nervous system itself.

The result, we can begin to see, was to see the mind as essentially a thinking machine. Lily Kay has argued that McCulloch and Pitts' theory, or model,²⁰⁹ resulted in what she calls "a logical calculus of immanence." "Neuronal interactions are," she wrote, "expressed as propositional functions that ... produce statements constitutive of perception, ideas and / or mind."²¹⁰ McCulloch and Pitts locate this more specifically in the brain: "the role of our brains in determining the epistemic relations of our theories to our observations and of these to the facts is all too clear, for it is apparent that every idea

²⁰⁹ One of the main goals of the paper was to demonstrate how different networks of idealized neurons could function as models that could reason logically if it was understood that the binary setting of a neuron represented one proposition in relation to others -- this is why it's often referred to as the McCulloch-Pitts model, and sometimes *machine*.

²¹⁰ Kay, Lily E. 2001. "From Logical Neurons to Poetic Embodiments of Mind: Warren S. McCulloch's Project in Neuroscience." *Science in Context* 14 (4): 591-614.

and every sensation is realized by the activity within [a neural network].”²¹¹ Not only is the brain *itself* the means through which humans may experience the world, but at its core neural activity is epistemic. The concept of mind embodied in logical neurons, Kay writes, is a “physiological a priori,” which stands “for the quintessential Platonic logos, the embodiment of Kant’s synthetic apriori,” that “perceptual manifold through which raw sensory data is [sic] ordered.”²¹² It is difficult to understate, furthermore, that the part of the nervous system called the brain is the essential construct which overcomes the Cartesian split: knowledge production is the activity of a calculus *immanent* to the nervous system which, in turn, is the foundation of the relation between the interiority of the self and the external reality of the world principally mediated through the body. In short, McCulloch and Pitts attempted to reduce the dualism of mind and body into a physical monism of natural computation.

The reach of the McCulloch-Pitts theory is, as Dupuy writes, quite enormous: it “attempted nothing less than to give a purely neuroanatomical and neurophysiological basis for synthetic a priori judgments, and thus to ground a neurology of mind.”²¹³ But this notion of mind also has an additional character: “since [the] activity [of the nervous system] is inherently propositional, all psychic events have an intentional, or ‘semiotic,’ character.”²¹⁴ This is to say that they are about something in the world. For analytical

²¹¹ “A Logical Calculus of the Ideas Immanent in Nervous Activity.” Pg. 131.

²¹² “From Logical Neurons to Poetic Embodiments of Mind: Warren S. McCulloch’s Project in Neuroscience.” Pg. 593.

²¹³ *The Mechanization of Mind*. Pg. 97.

²¹⁴ “A Logical Calculus of the Ideas Immanent in Nervous Activity.” Pg. 131.

philosophy, which would eventually come to dominate cognitive philosophy, solving the relation between a mechanical mind and its “aboutness” of things in the world was a critical goal. For McCulloch, Pitts, and Wiener, it meant that the world of meaning and the world of physical laws can be reconciled through computation.

These were the central ideas that introduced a *physicalist* science of the mind. Cognitive science is a science of the mind as a thinking machine. Cognition, here, is mechanical; its mechanisms tie physics to meaning through computation. Thus three concepts are central: physical causality, computation, and meaning. This remains the case for cognitive science today. But the mind, in its physical immanence, is tied to the organism’s behavior itself. Why? Because the mind need not necessarily be embodied in neurons. Indeed, the primary fact of mind as a computation and cognizing machine is that it is embodied in matter but cognitive science remains rather agnostic about what form of matter that is. True: there are still today debates about whether or not there is something special (i.e., *qualia*) to neurons that makes mind in humans special. But even those debates hardly matter in terms of the conceptual origins of cognitive science.

It is true that for Wiener, Rosenbleuth, and Bigelow, the category of mind was unnecessary to explain how a behavior could appear to have meaning, finality, and intentionality -- physical laws were all that was necessary, and meaning could therefore be explained merely as that which one may ascribe to behavior. McCulloch and Pitts, on the other hand, “set off in search of the logical and material mechanisms that embodied mind,” developing these mechanisms through a definition of computation that in fact

eliminated all reference to subjectivity.²¹⁵ Does this mean that cognitive science was born of a contradiction? No. Dupuy: “what McCulloch was doing ... was relocating the ‘behavioristic study of natural phenomena’ promoted by Wiener, Rosenblueth, and Bigelow inside the brain,” to a logically lower level. Dupuy argues that the paper “radicalizes” the other. How? If McCulloch’s neurons provide a logically prior, *neurologically embodied* explanation of intentional, purposive behavior located in the brain, Wiener’s teleological mechanisms of purposeful behavior radically extended the reach of neural networks to the life of the human or machine itself. “Mind,” as cognitive computation, can be embodied in anything that properly implements the functions of neural networks and that can be observed to demonstrate purposeful behaviors. In founding a science of the mind, cybernetics did not eliminate meaning, but, rather, “redefined meaning by purging it of all traces of subjectivity” and psychology.²¹⁶ Meanwhile, it redefined mind as essentially “thinking,” which is to say cognitive computation: processes of thought are *algorithms*, and they could be *embodied* in any material substrate. Computation was the concept that gave a physicalist interpretation to meaning: a direct line from physics to meaning, and that line was mediated by a particular, logical notion of computation.

In contemporary cognitive science, the legacy of cybernetics is forgotten, but appears under a new name: connectionism. During the 1950s, the sciences that eventually came under the name of “cognitive science” in the mid-1970s adopted what is

²¹⁵ *The Mechanization of Mind*. Pp. 49-50.

²¹⁶ *The Mechanization of Mind*. Pg. 14.

today called “cognitivism” to define its philosophical commitments. The best way to understand how connectionism and cognitivism are different is to consider the distinction each made on the meaning of the term “computation.” When cognitivism emerged in the 1950s, the notion of computation it used did not draw on the cybernetic machine (a physical machine of logical immanence) but the computing machine built by von Neumann and Turing: the finite state computer that processes *symbols* according to rules. The Turing machine is the machine of the modern computer, where hardware and software are distinct.

Symbols, in cognitivism, have three aspects: physical, syntactic, and semantic. “It is on the strength of these symbols,” writes Dupuy, “that cognitivism claims to be able to span the gap that separates the physical world from the world of meaning.”²¹⁷

Cognitivism is the result of a metamorphosis in the study of cognition; it assumes that the brain *is* a computer and that symbols are given and meaningful, computable by rules, and materially embodied in the causal processes of the brain.

More importantly, Dupuy writes, “the meaning in which cognitivists are interested is endowed with intentionality, and possibly consciousness as well,” a point I will return to later.²¹⁸ Cognitivism was not only interested in a critique of the human capacity for knowledge or the human brain alone. It remained devoted, like cybernetics, to a transcendental form of inquiry to discover the universal bases of intelligence, thought,

²¹⁷ *The Mechanization of Mind*. Pg. 6.

²¹⁸ *The Mechanization of Mind*. Pg. 11.

and knowledge *per se*, the knowing status of the human being notwithstanding.²¹⁹ Like cybernetics, enlarging the empirical study of mind meant engaging in a “naturalized” transcendental inquiry. The distinction of cybernetics from cognitive science is that the latter sought to make claims about human mental life, i.e., about the interior mental life of human subjects, where as cybernetics was content to produce models of behavior and thought without making claims about the structure of mental processes. When it came to making claims about human mental activity, the assumptions of cognitivism about computation led to two important blind-spots that opened cognitivism to two persistent attacks: one was on the side of its claims about physics, and the other on the assumptions it makes about mental representations and their semantic content.²²⁰ Regarding the first, it was asked how physical things could contain meaning (i.e., embodiment); regarding the second, it was asked how computation was equivalent with thinking when it did not take

²¹⁹ As Dupuy says, one can see that in artificial intelligence, for a long time the strongest version of cognitivism (and still dominant today), “the transcendental subject was replaced by the ‘physical symbol system’ and the universality of the synthetic a priori by the universality of the Turing machine.” All of cognitivism and artificial intelligence “was intended as a search for the formal conditions of cognitive activity common to all systems that are capable of such activity, whether they be human subjects, animals, or machines. It set itself the task of exploring all the possible modes of intelligence, beyond those particular ones that human beings are capable of displaying.”

²²⁰ Those attacks are double in nature -- one at the level of the relation of computation to meaning, the other at the level of computation to physics. Regarding the former, Searle’s “chinese room” thought experiment, in response to the Turing test, is probably the most famous. Searle’s critique turns on the distinction between thinking and understanding: he showed that while one may perfectly be able, in a cognitivist definition, to produce behavior that simulates “thinking in chinese,” they can do so without ever having to understand a single word of chinese. As to the relation of computation to physical laws, the basic problem was that no semantic or conceptual content is given in nature, raising the problem of whether “mental causes” are co-extensive with “physical causes.”

“understanding” into account -- a mind may be a thinking machine but that does not mean it understands what it is thinking the way a human subject may.

In order to combat those attacks, cognitivism allied itself with a philosophy of mind drawn from analytical philosophy, and reasserted the centrality of the computer metaphor. It is important to note that analytical philosophy remains today the dominant mode of cognitive philosophy *per se*. This philosophy refuses to base itself on any psychologism of human subjectivity, either in a humanistic or metaphysical form.

Historically, the analytical philosophy of mind was principally an objective philosophy of language. At the time of its liaison with cognitive science, however, philosophy of mind had “set itself the task of rescuing ordinary (or folk) psychology by giving it a naturalist and materialist foundation.” The basic premise of folk psychology is that people give meaning to their actions or beliefs, or those of others, by “explaining them and interpreting them in terms of *reasons*,” hence they are rational.²²¹

But how does one naturalize mental events defined in terms of reasons for behavior, or give them a physicalist interpretation? Cognitivism was ready to supply philosophy of mind with an objective, naturalistic theory of mental events. This was precisely the point where the meaning of symbolic computation specific to cognitivism enters the picture. Computation is conceptual and semantic computation: knowing and thinking amounts “to performing computation on ... representations.” That is, it amounts to the form of computing that is performed by a finite-*state* machine, a computer. But what is critical here, as we shall see in a moment, is that if thinking means operating on

²²¹ *The Mechanization of Mind*. Pp. 12-13.

finite *states* (representations), mental events become, as they are now generally called, mental *states*. Beliefs, desires, and intentions are, then, objective or formal “‘mental states’ endowed with semantic content” and they have a normative component, since they direct behavior to an end.²²² They can be computed by any machine or, indeed, the brain. “For cognitivism and the philosophical psychology associated with it,” Dupuy writes,

conceptual computation ... manages to square the circle. It creates an intermediate level between the interpretive level of understanding, where we give meaning to actions and beliefs by means of reasons, and the neurophysiological (ultimately, physical) level, where these actions and beliefs are produced by causal processes. The intermediate level is where ‘mental causes’ are supposed to operate -- a hybrid of causes and reasons, or rather reasons treated as causes.²²³

Let us linger a little longer on the term “mental state,” a term that is so pervasive and dominant today in describing mental life that we have lost the significance of its origins. Historically, the alliance of cybernetics and philosophy of mind is referred to as the latter’s “cognitive turn.” This “turn” from language to cognition in the philosophy of mind amounted to, as Dupuy argues, less the transformation of philosophy of mind’s concepts about mental events and more their continuation in cognitive science. Mental *states* in philosophy of mind had for a long time been understood as “propositional attitudes” of the kind, “John believes that the world is flat;” i.e., where the psychological attitude of a knowing subject is connected with a proposition about a thing in the world, to some thing which exists *outside* of the mind. Cognitive science adopted the definition of mental states and attempted to naturalize it with its notion of symbolic computation. It

²²² *The Mechanization of Mind*. Pg. 13.

²²³ *The Mechanization of Mind*. Pg. 13.

not only fit perfectly with its existing notion of computation but also with the metaphor of the computer and thinking.

But to continue with these concepts for a moment: *any* concept of mental events must connect mental life with what exists outside of the mind. Definitions of mental events or mental acts not only assume that subjects have mental life, but that this mental life has a particular “mode of being.” If mental events are about things in the world, there is a real question as to what the ontological status of the “thing” in the world that exists in the mental state *is*. If I think about my dog, it is not really a warm-blooded, barking animal which I have inside my mind, but some content that refers to the real dog in the world. But what is the ontological status of the content of my mental events that corresponds to my particular dog? Implicitly connected with this question is another: what is the ontological status of the subject or being who is doing the thinking? Is there, for example, a mode of being of mental events that is specifically human, or is the mode of being of mental events that humans have not particular to humans? We can frame this question differently: if, as cognitive philosophy claims, we can model the nature of mental life as mental states of symbolic computation, then is there nothing special to mental states in human beings? The key problem in cognitive philosophy’s adoption of mental states from analytical philosophy of mind is, as Dupuy argues, exactly what it asserts about the ontological status of the being doing the thinking. So what is the mode of being of mental states adopted by cognitive science? To answer this question we must look at “the idea of representation,” or symbols, found in cognitive philosophy.²²⁴

²²⁴ *The Mechanization of Mind*. Pg. 95.

Cognitive philosophy employs a special term to denote the capacity of mental states to represent something about objects which stand outside the mind: *intentionality*. Now, intentionality is not limited to cognitive philosophy.²²⁵ Dupuy contrasts intentionality in cognitive philosophy with that in phenomenology -- an argument that we cannot reproduce here. We want to recover what intentionality means in the philosophy of mind specific to cognitive philosophy, where mental life is understood through mental states. The most consequential assumption of intentionality in cognitive philosophy is that objects in the world exist as “things-in-themselves” and that the form of the relation between mental states and those objects is essentially *linguistic*. What does this mean? Consider that, in cognitive philosophy, the sentences we use to “attribute mental states endowed with content to others possess the property of being intensional [sic].”²²⁶ This is an assumption about mental states that is foundational in cognitive philosophy. Intensional means that such sentences violate “logical extensionality.” There are two

²²⁵ In his book, Dupuy contrasts in several provocative pages the concept of intentionality from cognitive philosophy and from phenomenology. For reasons of space, expertise, and relevance, I cannot go into that discussion here, except to say that, from Dupuy’s point of view, because phenomenology did not posit in its philosophy of mind that the existence of things or states of affairs in the world are external to the mind, but rather internal to it, that there was a “missed encounter” between cognitive science and phenomenology, one that could have advanced the project in cognitive science to provide a physicalist basis of mind.

²²⁶ The term *intensional* is not the same as *intentional*. In phenomenology, intensional is distinguished from, and thereby drawn in relation to, extensional. Extensionality refers to the way mental events are ontologically *on the same plane* as events in the world; i.e., that there is a necessary, ontological relationship between the events and states of mind and the objects in the world. Intensionality refers only to the fact that the interiority of mental events may be true by that the object referred to in the world is not guaranteed to exist. *The Mechanization of Mind*. Pg. 96.

rules of logical extensionality, and the first rule concerns existential generalization. For example, from the truth of the statement that “Etienne’s keys are in the living room,” which is not a propositional attitude, it may be inferred that a living room exists within which my keys are located. However, neither the truth nor the falsity of the statement “Etienne prefers the xorks in Denmark over those in France,” which is a propositional attitude, allows me to infer either the existence or nonexistence of xorks. Intensional expressions do not allow me to *generalize* the existence of its elements in the real world. The second rule violated by a linguistic interpretation of intentionality refers to the substitutability of terms that have the same reference. This “violation” is often described in more positive terms as polysemy, an idea which describes how the same object in the world can be referred to by any number of sentences. My real dog can, for example, be describe as “an animal,” “Etienne’s pet,” “a canine,” and so on. This is what Quine called “referential opacity.”

In cognitive philosophy, the assumption that mental *states* have an intensional, which is to say linguistic, form of intentionality means that mental representations (upon which mental processes compute), are endowed with content but, as Dupuy states, this content merely references “an object whose existence is not guaranteed by the fact that the mental state itself exists.”²²⁷ By contrast, an extensional mode of intentionality requires that mental events not only exist in the mind but, as phenomenology argues, that mentation is a dynamic process engaged with the physicality of the object itself; physicality mediates mental life with the external world as a basic (pre-)condition of

²²⁷ *The Mechanization of Mind*. Pg. 102.

internal mental life itself. Here, mental activity does not posit a reference to an object outside of the mind as a “thing-in-itself;” rather, mental activity and mental *acts* always extend beyond themselves in the same gesture of mental life internal to itself. An intensional theory of intentionality, however, simply says that mental life exists as mental states whose content may or may not refer to real physical objects in the world. Hence the latter are always, and only, “things in themselves.”²²⁸

The fundamental assumption made by cognitive philosophy that the *intentionality* of mental states is *intensional* poses a major problem for a physicalist science of the mind that wants to argue representations have causal relations with physical (albeit computational) material processes, and therefore to behavior. The more complex the mental state (and presumably the more complex the behavior), the less it seems possible to explain the causal relation of those mental states in physical terms. Why? Because the more complex the mental state, the more sophisticated the mental process; accounting for these mental processes cognitively means giving them structure and logics which cannot be tied to physical processes as such. Cognitive science uses an abstraction to account for complex mental processes. Cognitive philosophy tends to oscillate, within a dualism, between accounting for complex mental behavior *computationally* and explaining mental

²²⁸ It must be noted that Cultural Psychology, which unfortunately is not in the mainstream of psychology *per se* and which has all but been ignored by cognitive science, understood from the beginning the importance of understanding physical reality as a necessary mediational requirement of mental life. Mental life, furthermore, is always a dynamic process in cultural psychology, and as far as I know there is always a productive dialogue between phenomenology and cultural psychology on this very point. See, for example: Cole, Michael. 1998. *Cultural Psychology: A Once and Future Discipline*. Cambridge, MA: Belknap Press, Harvard University Press.

events in *physicalist* or naturalist terms. Thus while cognitive science may progress in developing algorithms of “intelligence” that, the more they are complex, the less they were close to human mental life,²²⁹ the inverse is also true: the more complex and singular to human mental life the phenomena, the more cognitive science looks outside of psychological data to account for its physical, cognitive, or in any case naturally computable, correlates.²³⁰

There is another, more important, reason why cognitive philosophy’s notion of mental states as intensional is critical for our discussion. I wrote earlier that any notion of mental events must make ontological claims about the being doing the thinking.

Mental events, in western epistemology, have a “mode of being;” indeed, they condition being and the subject. But when cognitive philosophy set it as fundamental to their

²²⁹ Good examples are to be found in at least two forms. One *expands* the physical phenomena it tries to explain cognitively, the other *reduces* the physical embodiments of human beings to mere automata. In the first case, a good example is various attempts made to account for evolutionary processes in computational and cognitive algorithms; one can also see this class of problems in, for example, the theory of distributed cognition, which considers a socio-cultural system produced by humans as precisely a cognitive system without human actors (or, more specifically, where basic, cognitive faculties known to belong to humans are treated as “representational media”). The second form can be seen in the success of building robots that could juggle -- i.e., machines that could simulate the cognitive processes necessary to perform highly trainable, and ultimately *automatic*, physical coordinations that can be possessed by human beings. More recently we have more “humanistic” robots that can not only march up stairs but (and this was the much more difficult problem), march down stairs as well. Here, again, cognition is given a “naturalist” basis in precisely the forms of cognitive philosophy that emerged after cybernetics, but it is reduced to what is in humans automatic behaviors.

²³⁰ Consider, for example, the successes of Deep Blue, the IBM chess-playing computer, against human opponents. Deep Blue employs cognitive strategies entirely alien to most non-cognitive psychological accounts of chess (and also self-reported thinking strategies of chess players about their own chess-playing).

science that mental events (as processes) were mental *states* (as products), and that the representational faculty of mental states was *intensional*, it thereby accepted that the physical processes that account for the mental states of human subjects are not unique to human subjects. In fact, *rejecting* the idea that there is an ontology of mental states unique to human subjects was critical to the success of their computational metaphor, which turns on investigating thinking by *modeling* and *simulating*. Cognitive science remains agnostic about the form of coding specific to representations for a very pragmatic reason: if there is something about the form of their representations special to the human subject as a condition of their mental events, then no analogical claims can be made about modeling mind in a computer (or any other medium). Ironically, the closer cognitive science gets to explaining complex human mental life, the more it has had to produce a set of results that go under the name of “artificial intelligence” -- a paradox whereby cognitive science “invalidates itself by placing the human subject outside of the very world to which it is said to belong.”²³¹ There is a correlate to this assertion: as mental life becomes more complex, cognitive science explains it less and less in terms of embodiment and more in terms of the *internal operations of the mind on itself*; i.e., in terms of its ipseity.

To conclude this section, I would like to reflect on what Dupuy identifies as “perhaps the most significant contribution of cybernetics to philosophy: mind minus the subject.”²³² For Dupuy, what cybernetics represents is not simply a subjectless inquiry

²³¹ *The Mechanization of Mind*. Pg. 20.

²³² *The Mechanization of Mind*. Pg. 107.

into the nature of knowledge, or the transcendental; it “was part of a larger attempt to dismantle the metaphysical vision of the world.”²³³ It was the “first harbinger of a new philosophy,” a philosophy of *subjectless processes*. There is no shortage of irony in the fact that a principal target of this philosophy was the mind, and that it wanted to “conquer the sciences of the mind ... and supplant existing psychologies” -- what for time immemorial in philosophy had been an inquiry into subjectivity.²³⁴ Cognitive science should be read as a science of the mind that does not, however, negate the subject, but as a science that produces what Dupuy calls *quasisubjects*. What is meant by this term? While the intellectual or thinking capacities that make up a mind are subjectless (merely computational), cognitive scientists persist in identifying the results with what Daniel Dennett calls “the intentional stance.” They *attribute* subjectivity and agency to a series of processes that, by definition, have none. This is the result of cognitive science’s (continued) liaison with an analytical philosophy of mind and its conceptualization of mental events as mental states. The mind is a technical machine, a self-organizing system, where “everything happens as if there were,” or simulates, intentionality, and “as if” its actions belonged to those of a subject. *Quasisubjects* are not automata. They are subjectless processes to which subjectivity is attributed or ascribed; or, to put it differently, they emerge from a science that assumes the ontological reality of a subject in the physical processes accounted for only technically and epistemologically. For cognitive science, the mind exists firstly because its activity is a technical, mechanical

²³³ *The Mechanization of Mind*. Pg. 151.

²³⁴ *The Mechanization of Mind*. Pg. 155.

process internal to itself, and second because it *need not necessarily* relate this internal activity to the life of a human subject in the world.

The more cognitive science claims to know about human mental life, which is human life *per se*, the more cognitive science chips away at humanistic notions of the mental life of the subject and replaces it with computing automata; with quasisubjects. What are the consequences of this in social practices -- in the today's clinic, for example -- where the knowledge of cognitive science encounters subjects all the time? We already saw in the last section that mind was being emancipated from the domain of the body that, in the 19th century, provided the limit of its intelligibility. The EEG demonstrated that the internal life of the mind and its activity could be represented, charted, and measured. The revolution in cognitive science brought about by cybernetics and analytical philosophy of mind made it possible, in the 1950s and 60s, to imagine *building* a brain; after all, artificial intelligence was already building "intelligent machines."²³⁵ At the same time, brain surgery acquired a new form of knowledge by which it could operate on the brain beyond the old localization theses, where lobotomy had grown into a standard psychiatric "remedy." But with each adoption, across various domains of medical or scientific, of cognitive science, a certain aporia between the mind as a cognitive machine and the human subject as the person experiencing thought was exacerbated. For the more the brain became the locus of the mental life of the subject, the less cognitive science could say about subjectivity itself. The more the brain's activity, as mental computations,

²³⁵ Ashby, W. R. 1965. *Design for a Brain: The Origin of Adaptive Behavior*. New York: Wiley. Walter, W. G. 1963. *The Living Brain*. New York: W. W. Norton and Company.

was internal to themselves, the mental computations could be linked to the experiential life of the subject in the world.

It is perhaps no surprise that medicine, particularly clinical neuroscience, latched so fervently on to cognitive science to organize a therapeutic program. Clinical neuroscience has always been a kind of technical, experimental science. As I will explain in the next section, it responded extremely well to a new class of patients who had suffered devastating brain injuries but remained alive by virtue of life support machines (a mechanical reproduction of the human body).

We need to understand that this move to elevate the mind as a self-organizing machine, internal to itself, made clinical subjects technical objects. It is not just, as Dupuy argues, that cognitive science has introduced concepts that have abetted the “deconstruction of the metaphysics of the subject.” What has *replaced* this subject is not another metaphysics, but rather a technics of intervention which tinkers and fabricates. Clinical cognitive neuroscience is by and large a technical practice that treats the human mind as cognitive machine. And while it assumes that cognitive processes are responsible for subjectivity (or agency and consciousness), it cannot link one to the other in a decisive way. This is the other side of what Dupuy has called *quasisubjects*: the operations of the mind are nothing more than “functioning subjectless processes” that have “emergent effects,” namely the mind.²³⁶ By the term “cognizant life” I wish to hone in on exactly that moment where cognition is presumed to turn in consciousness; where cognitive processes are transformed into mental states of an individual. It is there that

²³⁶ *The Mechanization of Mind*. Pg. 107 and pg. 161.

cognizant life is a “discourse” of the life itself of the human subject. But the more knowledge we develop of the mind as a cognitive machine, the less the humanistic subject remains protected from a technical account of the mind ... a mind to which we nevertheless wish to ascribe intentionality and “subjectivity.”

4. The emergence of brain death

The previous section described the basis for one pillar for the intelligibility of cognizant life: the mind as a cognitive machine. As we saw, the “emancipation” of the mind from the body was not only conceptual and scientific but philosophical. At the same time, it amounted to an inversion of the old relation between brain and body when it came to the status of the mind: the mind is now embodied in bodies and behavior and, thereby, takes a primary position with respect to the body. This “primary” aspect of the mind, however, originated in a naturalized epistemology, a form of knowing investigated in the physical immanence of the transcendental -- inspired by the neurons of the brain. But the way cognitive science formulated its concept of “computation” in relation to analytical philosophy left a void of personhood, or subjectivity, while becoming, over the last few decades, a primary discourse of human life itself. Now we turn our attention to another pillar of cognizant life: death, or, to be more precise, brain death. What interests me here is how cognizant life not only acquired a relation to death, but the particular condition and meaning of brain death. As we shall see, the existential confusion over the vegetative subject stems from the fact that brain death is articulated at the intersection

between two rationalities of life and death: one where the brain is dominant, and the other where the body is dominant.

In 1959 an article was published in *La Presse Médicale* on the “death of the nervous system.”²³⁷ The concern was clinical. Ventilators, the article states, have made possible patient survival after anoxia, but many of these patients are left with a clinical aspect of ‘apparent death,’ a condition these authors would, in a later article, define as “coma dépassé,” literally “beyond coma.” The reasons for the reflection referred to the question of when it is possible to “stop artificial respiration.” Since the parasympathetic regulation of breathing is coordinated by the brain, the paper argues, the answer should be found in the brain. How does one decide on measures of the “definitive disappearance of all cerebral activity,” or measure of cortical and sub-cortical activity? This problem is compounded by the fact that the nervous system is plastic and may recover. Any criteria for the death of the nervous system, the authors argue, should include the *irreversibility* of the loss of nervous function. But which functions? How does one establish their loss? The answer the authors proposed was that if no electrical activity in the brain could be recorded in those regions of the brain known to underpin respiratory functions, the brain is dead. Hence if there is “absence of all integrative activity of conduction or automation” in the cortical and diencephalic areas of the brain responsible for the automatic regulation of respiration, the nervous system is dead and a ventilator can be disconnected. The death of the nervous system does not, however, constitute the death of

²³⁷ Wertheimer P., M. Jouvet, J. Descotes. 1959. “A propos du diagnostic de la mort du système nerveux dans les comas avec arrêt respiratoire traités par respiration artificielle.” *Presse Médicale* 67: 87-88.

the patient. It only constitutes the basis for a determination of when to stop ventilation, whereafter the patient can be declared dead.²³⁸

This article was not the first time that a criterion for what eventually came to be categorized as “brain death” was sought in terms of electrical activity, functional localization, or its relation to patient care. Throughout the 1960s the problem was regularly discussed. Brain death however, did not gain public interest or widespread traction until it became relevant to organ transplantation. In the US, in 1968, a committee at Harvard was formed to “examine the definition of brain death” and develop a criterion for its diagnosis.²³⁹ The group was commissioned because of two new realities. The first corresponded to advances in ICU life-support systems that extended the survival of patients who had suffered brain damage. The second referred to the “obsolete criteria for the definition of death [which] can lead to controversy in obtaining organs for transplantation.”²⁴⁰ Generally speaking, the death of a patient had been determined by medicine as the cessation of activity in the lungs or heart. From the point of view of transplantation, however, waiting for this criterion to be satisfied usually meant losing viable organs. The committee proposed that the term “irreversible coma,” defined by a range of symptoms, function as the diagnostic criterion of brain death. The symptoms

²³⁸ Wertheimer P., M. Juvet, J. Descotes. 1959. “A propos du diagnostic de la mort du système nerveux dans les comas avec arrêt respiratoire traités par respiration artificielle.” *Presse Médicale* 67: 87-88. Pg. 88.

²³⁹ Report of the Ad Hoc Committee of the Harvard Medical School to Examine the Definition of Brain Death. 1968. “A definition of irreversible coma.” *JAMA* 205 (6): 337–340.

²⁴⁰ *Ibid.* Pg. 337.

included the absence of reflexes, the cessation of independent breathing, paralysis, and a non-reception or non-responsiveness to sensory stimulation but not, of course, a still heart, breathless lungs, or degraded bodily organs. The criteria were clinical, so that a physician does not require neurological data to make a diagnosis. It is a diagnosis that can be made by any physician about a patient with “no discernible central nervous system activity,” a definition commonly referred to now as whole brain death.²⁴¹ The aim was, indeed, not simply to produce an accurate, or scientifically sound diagnosis, but to produce a practical one in relation to a particular kind of living body.

The historical explanations for the dominance of the 1968 Harvard criteria vary in the literature. Mita Giacomini has argued that two narratives have been used to explain what motivated the Harvard committee’s criteria for the diagnosis of brain death.²⁴² The first narrative is technological: advances in life-support machines “literally created” brain-dead bodies and the criteria selected were those belonging to what could be detected instrumentally. A second argues that the report was a “defensive response of medicine” to public skepticism regarding the ethics of organ transplantation and the intrusion of non-medical professionals into medical matters. For Giacomini, neither of these is correct. Reviewing the notes and proceedings of the committee, she argues that furthering the interests of organ transplantation drove a great deal of deliberation over which criteria to include in the definition and how. Brain-dead, organ-viable bodies, she

²⁴¹ *Ibid.* Pg. 337

²⁴² Giacomini, Mita. 1997. “A Change of Heart and a change of mind? Technology and the redefinition of death in 1968.” *Soc. Sci. Med.* 44 (11): 1465-1482.

argues, were “created, recognized, described, and defined in the development of the brain death criteria” to advance transplantation. The “guiding conceptual framework,” she argues, “was technical and utilitarian;” it served biomedical interests as opposed to either technological advance or public concerns.²⁴³ The result of this deliberation was not, in her view, an accurate definition of brain death, but a “new delineation between the living and the dead.”²⁴⁴ Not unlike the *Roe v. Wade* decision of 1973, which conceptualized a wedge in fetal development between mere life and personhood open to further review, Giacomini argues that the 1968 Harvard report did not institutionalize brain death criteria, but rather institutionalized “the practice of medically redefining death as an historically progressive act.”²⁴⁵

It is difficult to understate how central organ transplantation was in giving brain death the weight of its historical and contemporary meaning. I want to pause over Giacomini’s assertion that the criteria of brain death produced a “new delineation between the living and the dead.” In a recent entry to the “current concepts” section of the *New England Journal of Medicine* from 2001, a physician could begin the article with the following sentence: “Physicians, health care workers, members of the clergy, and laypeople throughout the world have accepted fully that a person is dead when his or her

²⁴³ “A Change of Heart and a change of mind? Technology and the redefinition of death in 1968.” Pg. 1466.

²⁴⁴ *Ibid.* Pg. 1478.

²⁴⁵ *Ibid.* Pg. 1481.

brain is dead.”²⁴⁶ Recent work in medical anthropology has shown that such an assertion, while generally true, needs to be strongly qualified. Margaret Lock and Linda Hogle, in two recent studies of brain death and organ transplantation, have demonstrated with extensive ethnographic studies that the category of the “person” is by no means unproblematic in the social contexts, public spaces, or ICUs, where brain-dead patients are visible and cared for.²⁴⁷ This has been the case since the 1960s, when transplantation procedures became viable. While it may be widely accepted that a *person* is dead when their brain is “dead,” negotiating the relation between brain death and the death of the person is the object of an enormous number of cultural and social practices. The reason for this lies precisely in the peculiar position of the brain dead patient in relation to organ transplantation: the patient, Lock notes, is now a “hybrid ... that of a dead person in a living body,” albeit artificially sustained. Body parts are procured, extracted, commodified, and exchanged on a market (however regulated) *because* they are *alive*, while “irreversible coma” -- a neurological condition of the brain -- is the criteriaon for ensuring that a *person* is *dead*. Brain death and viable organs - i.e., a dead person and a living body -- are mutually constitutive. At the intersection between them, the ontological status of a person is identified. The greater our capacity to commodify and transplant life “specific” to the body, the greater the person’s death is intensified in the activity of the

²⁴⁶ Wijdicks, Eelco F. M. 2001. “The Diagnosis of Brain Death.” *N. Engl. J. Med.* 344 (16):1215-1221.

²⁴⁷ Lock, Margaret. 2001. *Twice Dead: Organ Transplants and the Reinvention of Death*. Berkeley, CA: University of California Press. Hogle, Linda F. 1999. *Recovering the Nation’s Body: Cultural Memory, Medicine, and the Politics of Redemption*. New Brunswick, NJ: Rutgers University Press.

brain. Indeed, making the absence of brain activity *the* threshold of personhood is one of the major accomplishments of brain death criteria.

What this has meant is that criteria for a particular moment, threshold, or boundary of brain death are explicitly tied to the end of the life of the person *per se*. No physician, Lock shows, disbelieves that brain death *is* death; but most of them worry about deciding *when* a person is dead. “Today,” Lock writes, “despite advances in scientific knowledge about the brain, neurologists continue to write and openly worry about the death of the person.”²⁴⁸ This is exactly the same, constitutive problem we identified in the last section in the epistemological foundation of cognitive science and neuroscience: there is an aporia between the neural processes of the brain and the ontological status of the human person in the account of the mind given by the neural processes of the brain.

The term “despite” in the quote by Lock above suggests that brain death definitions are a matter of accuracy. In fact, advances in cognitive neuroscience in detecting and recording brain activity have only made the question of when a person is dead *more* complex and ambiguous.²⁴⁹ If the ontological status of the person is implicit in the neurological activity of the brain, our knowledge of the brain’s activity has only made it more difficult to answer the question, “when is a person dead?” For Lock, as for

²⁴⁸ *Twice Dead: Organ Transplants and the Reinvention of Death*. Pg. 95.

²⁴⁹ In the last 40 years, neuroscience has in fact argued that even the smallest brain activity may be evidence of autonomy or agency. Indeed, if anything characterizes the trend in cognitive neuroscience today with respect to brain death, it has been to develop more and more minute studies of cerebral activity to investigate the bare cerebral activity necessary to count as personhood.

doctors, what is given in brain death is that diagnosing brain death corresponds *immediately* to an uncertainty about the death of the person.²⁵⁰

Perhaps not surprisingly, the Harvard committee associated a person's death with brain death without thoroughly considering whether neuroscience could support such a definition. Neuroscience had never, as far as I know, previously entertained the notion that irreversible coma could mean the death of the *person*. Cognitive science, which drew heavily on neuroscience, never encountered the question of when a mind could be dead; it only sought to show how nervous processes, even if they are built through the form of a computer, "thinks," and perhaps are self-aware. For this reason, however, cognitive science was perfectly positioned to take up as one of its own problems the ambiguities inherent in the claims of the Harvard brain death criteria about the relation of nervous activity to consciousness. For if a definition of brain death, as the death of the mind, required accounting for which nervous processes constitute the conditions of mind, cognitive science could step in to investigate. Moreover, at the same time when brain death was being debated, the cognitive science was fused with the dream of building nervous living systems -- what is today called artificial life. In other words, at the moment when the brain death criterion established the death of the person as the

²⁵⁰ Lock and Hogle explain this by referencing myriad boundary transgressions of cultural and normative boundaries. Both leverage comparative cultural research to show that social norms, cultural values, traditions, and various discursive systems -- e.g., of cultural anxieties about reanimation, being buried alive, vivisection -- are reproduced at this new wedge between life and death, i.e., between personhood and non-personhood. "The struggle," Lock explains, is "to define a clear transition between life and death, to create discrete boundaries." (94)

cessation of nervous activity, cognitive science was establishing itself as a discourse of (artificial) life. A couple of examples suffice to make this point.

In his 1952 *Design for a Brain*, Ross Ashby demonstrated the simultaneously adaptive and mechanical properties of the “mind” implemented in a machine that produced stable, controlled, adaptive behavior.²⁵¹ The machine (the “homeostat”) was a physical dynamical system of four bomb control units armed with mechanisms (feedback, sensor, behavior, etc) that could stabilize itself when disruptions were introduced into its “environment.” The dream of building machines that could produce complex behavior was not limited to the the adaptive properties of the nervous system, however. In *The Living Brain*, Grey Walter, a neurophysiologist deeply influenced by Berger’s studies of the EEG, sought to build the most simple electrical model of a brain (with two nerve cells, sensors, and effectors) which he called *machina speculatrix*. For Walter, the functions of the brain were not only homeostatic, but tied to psychological functions of personality. His reading of the electrical outputs (on an EEG) produced by his machine, and their similarity to the brain waves of human beings, were enough for him to propose that they were indeed personality machines. In any case, the notion of the brain as a living organism distinct from other discourses of life was emerging in this period through the engineering sciences that sought to build a brain. It cannot be overlooked that, on this side of neurological research, the body is largely functional, inanimate material. It is the *brain’s* activity itself that gives vitality to the motions and movements of the body; that

²⁵¹ Ashby, W. R. 1965. *Design for a Brain: The Origin of Adaptive Behavior*. New York, NY: Wiley.

gives them purpose and produces the appearance of meaningful behavior. It is the neural operations of the mind, in cognitive terms, that arbitrate the personality of the individual.

The reason for continued deliberation over death as brain death corresponds to the double-sided way the brain's activity is intelligible as an organ of life and death. On the one hand, the brain was given a specific meaning because of the clinical context of organ transplantation and life-support: the brain's inactivity was the boundary and threshold of the death of the *person* in a body that continued to remain alive. To accelerate the extraction of "life" specific to the body, a categorical decision was made: the absence of brain activity *is* the death of the person. Organ transplantation and life-support machines implicitly located life in the body. The clinical context in which the brain death criterion was formed in the 1960s did not consider how the brain's mental activity was evidence of life; it only asserted the opposite: absence of mental life is death. On the other hand, we must remember that the brain's activity was, in the mid-20th century, re-conceptualized in the cognitive sciences as computational processes of a materially embodied mind. But cognitive science did not trouble itself, in the 1960s, with brain death; *yet* it was busy developing a science of artificial life and intelligence. In the intervening years cognitive neuroscience has assumed a greater, central role in the determination of brain death. However, ambiguities of the relation of personhood and neural activity have only expanded. Why? Because cognitive science, as a science of the subjectless mind, cannot affirmatively assert which basic neural processes are the bare threshold of what makes a human being a "person."

To summarize: we must understand that there are *two* distinct relations of the brain and body that pertain to *two* rationalities of life and death, and that both of these rationalities were introduced to “death” at the moment when the brain’s activity became the criterion for a person’s death:

1. The nervous system and brain in neuroscience and cognitive science are the objects of a science of the mind, a discourse of the life of a particular kind of thinking subject. Mind is embodied in the brain, and the body itself bears little on the “life” at stake here, for the body can take any form and is inanimate and non-vital. Life belongs, however, to a mind that thinks, insofar as the brain computes and cognizes, but not to subjectivity. If there is any death in this discourse, it is attributed to a machine or system without the computational or cognitive processes that account for thinking; to the cessation or interruption of computational processes.
2. Organ transplantation, and the clinical criteria of brain death, centralize the *person* as the category of the brain’s inactivity only insofar as the person is dead. Lock and Hogle show over and over again that “personhood” is expressed by doctors with terms as soul or spirit. The brain is here the ontological threshold of a human being *per se*, but only in the sense that there is *no activity* in the brain. This is a different relation of brain and body as it pertains to life and death. Life is in the body, since it can be extracted, commodified, and exchanged or, with the aid of machines, “supported.” The brain is interesting *only* from the perspective the person’s death, which is to say as a threshold, boundary, or limit such that a lack of nervous functions constitute the death of the person. The body lives while all that makes a person has “died.”

Two discourses of life and death spread over the figures of the brain, body, and mind in a single patient. First, the clinical imperative for a cerebral diagnosis of death in the brain gave cerebral inactivity a new ontological status -- that of a person *per se* -- that the cognitive scientists could not have previously thought of or imagined. The clinical criteria, particularly relevant for organ transplantation, equated the irreversible cessation of the nervous activity in the brain with the death of a person. It is true that the brain’s

activity is co-extensive with death in the sense of its absence. But at the moment that brain death places the death of the person in the neurological activity of the brain, even by its absence, brain death calls upon an existing knowledge from the cognitive sciences. Although this was not yet evident in the 1960s, cognitive neuroscience would soon assume a key place in the determination of brain death. This is precisely because the clinic, even outside the context of organ transplantation, encountered patients with devastating brain injuries where some neural activity remained.

We tend to explain brain death by referring to a single threshold of “death” and a single notion of “life.” This is a commonplace mistake but one that confuses the issue over how the vegetative subject is produced. Brain death is the space of “intersection” between two rationalities of life and death on a single brain and body. To be almost brain dead means to be a little bit alive neurologically. But the terms “dead” and “alive” in this phrase each refer to *two* distinct rationalities of life, death, and the subject. One of them locates life in the body and death in the cessation of brain activity such that both converge in the death of a *person*. The other rationality of life (from cognitive science) has no concept of death or the person, but it produces knowledge of the brain’s activity as that of an embodied mind and, as we have seen, a *subjectless* subject. The perplexing situation of the vegetative patient -- whose brain remains active despite profound damage -- is that, while one discourse *insists* that brain function is the threshold of the death of the *person*, another produces knowledge about its brain as a subjectless *subject* with a mind that continues, however disabled, to function.

5. The birth of the vegetative state

In 1972, Jennett and Plum published a now famous article proposing to give a name to a “new situation never previously encountered” in the clinic.²⁵² Whereas damage to the brain’s “intuitive and protective functions necessary for survival” previously entailed a certain and quick death, it was now “commonplace,” due to advances in intensive care, “for patients to survive with devastating brain damage.” While these patients may “recover from sleep-like coma” to have periods of wakefulness and reflexive motor activity, most “never regain mental function.” Yet these patients are “neither unconscious nor in a coma in the usual sense,” since both terms “imply a sleep-like insensibility;” nor are they brain-dead, for they still have some neural activity. Indeed, such patients typically behave spontaneously, fully awake, reflexively responding to stimuli, groaning, and producing other behaviors even if they do not communicate. What is new and common to this class of patients is not an illness, behavioral complex, particular brain injury, or abnormality, but the fact that they are in a “state” without “recognizable mental function.” Indeed, for Jennett and Plum, the critical issue is how to organize a clinical diagnostic program when the nature of injuries to the brain that may cause this “state,” and its behavioral results, vary so greatly. In order to make such an issue answerable, a name must be given to “facilitate communication” between “doctors or with patients’ relatives or intelligent laymen” about this syndrome and its

²⁵² Jennett, Bryan. and Fred Plum. 1972. “Persistent Vegetative State After Brain Damage: A Syndrome in Search of a Name.” *Lancet* 299 (7753): 734-737.

“implications.” And to this question, Jennett and Plum proposed the term “persistent vegetative state.”

What I want to suggest in this section is that the object of the clinical situation confronted by Jennett and Plum was the form of life we have been trying to reach: cognizant life. It is true that Jennett and Plum do not refer to cybernetics, neurophysiology, psychology, cognitive science or artificial intelligence. In part, this is because their context is clinical: how may physicians respond to, tend to the needs of, and make decisions about, this kind of patient? The problem Jennett and Plum recognize is that no existing name, which is to say paradigm, suitably makes sense of the patient’s syndrome. As we shall see in a moment, what is essential to this syndrome is that the patient lives a form of life with brain activity but without “a working mind.” Cognizant life becomes the basic condition of the vegetative syndrome: it is the interface, or threshold, between brain death and cognitive processes that sustains the bare elements of mind.

Reviewing a significant body of clinical and pathological reports describing symptoms similar to those of the vegetative patient, Jennet and Plum are at pains to explain why names previously given to this disorder do not “capture the essence of the syndrome descriptively.” They do not wish to report an etiology, but to orient the clinician and the scientist to a general, clinical situation and a new kind of patient. They broadly lay out two problems with past and current names given to this patient’s disorder. The first problem is that some names emphasize the motor and behavioral symptoms of the patient, attempting to classify the syndrome in terms of a motor deficit. Here, for

example, we see descriptions in terms of aphasia, paralysis, and catatonia. But “whilst it is usual,” they write, “for the mental state which we are defining to be associated with severe motor disorders, the pattern of this is by no means consistent,” and can therefore not be used as the basis for description.²⁵³ The second class of names given to this disorder refer to mental pathologies -- such as dementia, coma, and schizophrenia -- and to their cortical correlates, which is to say the particular anatomical lesions or diseases on the brain that are thought to cause them. But again, Jennett and Plum argue that the disorder they seek to name can result from any number of anatomical or pathological disorders to the brain. Any reference to “decerebration and decortication,” they write, “might be taken to imply a specific structural lesion.” Not only does the variety of these anatomical injuries form no basis on which to predict the syndrome, but they are also “unsuitable for bedside diagnosis, when the nature of the lesion can seldom be accurately predicted and never be proved.”²⁵⁴

After dismissing these terms as too specific to present a coherent description of the patient in the clinic, Jennett and Plum explain the choice of the term “vegetative” to characterize this disorder. The term vegetate is commonly used suggests that one is living “a merely physical life, devoid of intellectual activity or social intercourse;” and the term vegetative, similarly, refers to “an organic body capable of growth and development,” yet “devoid of sensation [or] thought.” The major pitfall of previous definitions of this

²⁵³ “Persistent Vegetative State After Brain Damage: A Syndrome in Search of a Name.” Pg. 735.

²⁵⁴ *Ibid.* Pg. 735.

syndrome is that they presume either a “particular physio-anatomical abnormality” or a “specific pathological lesion,” both of which are unsuitable for the physician at the bedside, since he must make judgements on the behavior of the patient. The error here is not one of instrumental accuracy, but rather a kind of category mistake. The essence of this clinical syndrome is, at its core, neither pathological nor anatomical. It is expressed by behavior which shows no evidence of mind; of any intellectual or social character. It is at this point that they offer the following description:

In our view the essential component of this syndrome is the absence of any adaptive response to the external environment, the absence of any evidence of a functioning mind which is either receiving or projecting information, in a patient who has long periods of wakefulness. [my emphasis]

A few paragraphs later, they add that “what is common to all patients in this vegetative, mindless state is that, as best can be judged behaviorally, the cerebral cortex is not functioning.” Do we not have here a “syndrome” based on the concept of the mind as a machine that does not exhibit purposive behavior, either in relation to itself or in relation to entities outside of it? Does this syndrome, with its reference to the mind as that which “receives and projects information,” not rely on the assumption that the brain and cortex function as neural networks of cognitive processes from which emerge intentional actions? To be sure, the vegetative state does not refer to a particular pathological, structural, or physiological problem itself -- this much is clear. It refers to patients who are behaving without any intentionality, purpose, or a “working mind.” What “characterizes the vegetative state,” Jennet and Plum write, finally, “is the discrepancy between prolonged periods of wakefulness and the absence of any behavioral

or physiological evidence of cortical function or mental activity.” It is true that this is not the first time a clinician has described the behavior or syndrome of a patient as “mindlessness.” But the definition of mind is new. “Mental activity”, here, refers to a specific kind of mental activity: that which interfaces between physical and social life.

The “essence” of this syndrome rests, it seems to me, on an articulation of the rationality of life I have been presenting in this chapter. The condition of the patient is not located, at a primary level, either in the particular behavioral, bodily symptoms, or in a particular kind of anatomical or physiological lesion, but rather in the bare conditions of mind as a function of a physical, neural substratum which makes possible the production of cognitive processes and intentional behaviors. We hear in the expressions “adaptive response” and “receiving or projecting information” a perfect echo of the brain as a cognitive machine that computes mental states and directs behavior. But if the patient’s behavior appears aimless despite cerebral activity, then which cerebral activity counts as cognitive and which does not? While they may be similar across cases, behavioral symptoms nevertheless cannot be grouped by a specific kind of motor, speech, or sensory deficit. What their persistence after brain damage means is that parts of the brain remain active; i.e., are not impaired or dead. What links these two orders of fact (the cognitive machine of the brain and brain death) is not a direct relationship, but their mutual mediation by a “bare threshold of mind,” what I call cognizant life. Indeed, it is the “bare” mechanisms of the mind to receive and project information, and generate adaptive responses as intentional responses to an environment which is central to the syndrome itself.

For Jennett and Plum, future efforts must be directed precisely at developing “predictive criteria” based on the behavioral condition of the patient that would allow us to diagnose “cognizant life.” As we have seen in the last 40 years, however, brain-imaging techniques have not only become more sophisticated, routine instruments in intensive care wards, but critical to detecting and diagnosing the vegetative state. This is because the brain’s activity has come to mean the behavior itself of the individual. Cognizant life, we must remember, is physical and, simultaneously, that which goes beyond the physical. The addition of the brain’s activity as behavior itself has intensified the importance of cognizant life as the threshold of human life itself. Cognizant life is, today, what makes a mind a working mind; it is the bare layer of what it “takes” to be a person, which cognitive science has labelled intentionality and also consciousness. Cognizant life is therefore that form of neural activity and cognitive processing which is necessary to be counted as a person. It must be aware of itself, and express this awareness in the form of behavior or neural activity. While it may be recorded in instruments, it requires and must be inferred by another human being.

The deep dependence of the intelligibility of the vegetative state today on cognitive science, and the particularity of cognizant life, allows us to call the vegetative patient by another name: s/he is a subjectless subject. The vegetative patient is a subject who is suspected to be in fact subjectless, since its basic faculties of mind (to produce intentional behavior) and what is therefore the essence of human life itself, may be cognitively absent. The mind is embodied, we assume, in cognitive nervous processes. The question about the vegetative patient is precisely whether or not its brain is, in fact,

embodied. What Jennett and Plum were responding to, or at least trying to respond to, is the clinical uncertainty faced by the physician who does not know the extent or form of brain injury sustained by a patient. To deal with this uncertainty, they argued that determining subjectlessness is imperative, but that the presence of a subject can only be inferred from the observation of behavior and a determination of whether or not it is intentional, that is, behavior directed by the mind to make this inference. One must be educated in certain reading practices that also shape particular expectations. Again: today this behavior is analyzed at the level of cerebral activity. In this sense, the subjectivity of a patient -- their status as a living subject, as opposed to mere physical life -- is determined entirely by whether or not the body or brain's activity is intentional; i.e., "evidence of a working mind." Whether the determination of mind is based on the behavior of the body or representations in brain images, the interpretive logic is the same. In fact, brain imaging has become intensified and expanded, for the major goal of neuroscience is to determine whether any behavior, since it can be shown to have a neural component, is mindful.

By ordering a clinical syndrome as subjectlessness, and tying bodily behavior and brain activity to cognizant life, Jennett and Plum inadvertently transformed a clinical terrain of medical and technological uncertainty into a space of moral conundrum, ethical reflection, legal ambiguity, and social dilemma. Why? There are two reasons. We must remember that what cognizant life refers to is a threshold of human life on the cusp of mere physical, vegetative life. The search for a certain, final diagnosis of the threshold of cognizant life has meant separating what is merely technical and mechanistic about the

human body and mind from what is specifically human. One cannot know what is mindful without, at the same time, claiming to know the inverse: that x or y behavior is merely vegetative. Overwhelmingly, the last forty years of research on the bare cognitive conditions of subjective mental life have not produced any greater accuracy in the detection of awareness but, instead, have expanded the ways we understand the brain as a technical, computing machine. If the mental life of the human subject is co-extensive with mindful behavior, then the explanation of the subject's being in terms of mindful activity has proliferated our "knowledge" of how we are merely vegetative, as opposed to uniquely human.

This raises a second major reason why the syndrome of "persistent vegetative state" defined by Jennet and Plum transformed medical uncertainty into moral, ethical, and legal questions. Under conditions of uncertainty, a clinician faced with a patient suspected of being vegetative will try always to decipher each and every behavior and ask: was that mindful, adaptive, communicative, or in any way evidence of some kind of intentionality? The knowledge of cognitive science, or in fact of cognitive neuroscience, upon which the physician might rely to determine the presence of a person in the brain makes no claims, as we saw, that mental states are specifically human. The essential problem is that the subjectivity of a subjectless subject became based on a science that accounts for mind as subjectless processes. Meanwhile, a body continues to be kept alive or remains alive on its own. This is why those institutions which are confronted by the vegetative subject have in fact turned to bioethics, moral discourse, and the law to fill in a subject where it cannot find one on its own. Those discourses have "recognized"

enumerable new social, legal, and ethical interests in order to make a subject appear precisely where medicine and cognitive neuroscience cannot locate one: in cognizant life.

6. Cognizant life and subjectivity

The goal of this chapter was to chart the rationality of life not only of the vegetative patient, but of the vegetative subject. We called the object of this rationality of life cognizant life. The vegetative subject -- a living body with residual brain activity, and for whom the form of residual mental function must be determined -- exists in the zone of ambiguity between two rationalities of life and death that, in the 20th century, were located with respect to the brain. One belongs to what is today called cognitive science: a discourse of mental life, which is to say of the life of the being, that depends on an epistemology of nervous processes as cognitive processes. The second was brain death, which not only developed the criteria for the determination of death as such, but which attributed personhood to human mental activity via its absence. The name cognizant life was used to describe this threshold of bare, necessary mental activity that qualifies the mental life of the human subject. The term cognizant life is also useful to capture the meaning of two other terms that have served to mediate and bridge, conceptually and rhetorically, between these two registers of brain activity within which the vegetative subject is intelligible. Consciousness and awareness, terms that today refer to the person and the product of cognitive processes, define by their absence the neurological, cognitive, and medical condition of the vegetative subject.

Cognizant life is a paradox. Insofar as a human being remains physically alive in the brain (and also the body), they may nevertheless not be human because that physical activity may not in fact correspond to mental life internal to itself. Why? Cognizant life, which is that bare threshold of life between physicality and mentality, is produced by cognitive processes that need not bear any relation to anything outside of itself. But this leads to yet another paradox of cognizant life: the major discursive paradigm we have for deciphering the mental life of human beings -- cognitive science -- does not assume that mental representations are unique to human beings. Or, to state it differently, mental representations do not have a particular mode of being, an ontological form, that is singularly human. Meanwhile, science continues to reveal that the human body is nothing but a mechanical device which can be technically reproduced by artificial hearts, lungs, and other organs, intensifying the idea that the mind and mental activity together constitute the space of human life per se. In this regard, we have a rationality of life that perpetuates a void of personhood as long as the brain remains physically alive. It is a void of personhood not because we are certain personhood (or consciousness) is “not there” in the physical activity of the brain, but because we cannot rule out that it is not there. While a body is kept alive, personhood must be affirmed, sought out, and tested for in as many ways as possible. And so this void of personhood, where personhood must be inferred via behavioral or cognitive processes, is beset by the fact that a body must be sustained and cared for and that, moreover, access and treatment of the body must be regulated, policed, and authorized.

Here is where the ambiguous medical and scientific status of the vegetative subject gives way to a plethora of legal, political, cultural, scientific, ethical, and moral questions. For while cognitive science attempts to decipher the basic cerebral-cognitive processes necessary for consciousness, a body continues to have an enduring social existence. And since this body, and its cerebral activity, is by default assumed to possibly harbor personhood, it continues to have a salient social existence with respect to the actions of others. It is only natural that the difficulties of dealing with these ambiguities should raise the question of whether or not something else should be done about a “person” in a vegetative state. It is only natural that the emotional difficulties physicians, family members, and others face when confronted by conceptual dilemmas about the living status of a person should force the question of what can be done. In order to answer this question, however, there must be some form of a subject in the vegetative patient; there must be a vegetative subject. If this cannot be settled by cognitive science (a discourse of subjectless subjects), then it must be resolved elsewhere. Who is the subject of cognizant life? Who is the subject whose biological existence allows them to be placed by various social and legal practices on the threshold of brain death and bare mental life or, to put it another way, profound mental disability?

In the last decades, as the number of vegetative patients has grown, we have encountered the paradoxes of cognizant life as an economy of bodies and a concern for their welfare. While this economy was for a short while associated with the procurement, circulation, and exchange of organs in transplantation networks, in the last four decades this economy has expanded beyond the clinical contexts of medical surgery. This

economy of bodies has been rendered intelligible in more general social, legal, economic, and ethical terms. It has, for example, defined an ethical and moral relation with death itself (not just one's own death, but the deaths of others for whom one may feel responsible). It has been suffused with a whole bioethics. Cognizant life has come to assume a normative position in how we understand ourselves as ethical subjects who must encounter our own deaths or the deaths of others in a particular kind of way. It has provoked the attention of legislation aimed at ordering the "end of life." It has drawn the attention of various economists who, in assessing the costs of sustaining vegetative subjects, have given the latter a fiscal intelligibility. At the heart of the matter, in each case, has been the problem of specifying a form of subjectivity where cognitive science cannot establish one because it is assumed that a person may yet be "there."

If this chapter has identified cognizant life -- and the paradoxes of personhood that it produces in a human body -- as a particular void of personhood in the biological bases of subjectivity, then the aim of the next chapter is to trace how a biopolitics was made in relation to cognizant life. What is critical to my thesis is that the discourses that emerged to give an economy of bodies in a persistent vegetative state their intelligibility aimed to produce the vegetative subject as a subject because they had to respond to the problem of conduct. The problem is that *others feel compelled to act on and for this body*. But they need a subject in order to do so. Law recognizes the vegetative subject as a rational legal subject who wishes (or would wish) for its own death (under particular conditions) in order to make legitimate the actions of others to end the vegetative subject's life. This is just one example. It is not only a biopolitics that is at play here, but

what Foucault called governmentality: the regulation of the conduct of conduct; the conduct of those who are conducting themselves in relation to the vegetative subject. In fact, one may say (as I will show and argue), that the primary aim of these governmental rationalities is to produce a subject purely through governmental procedures.

What is interesting about the emergence of cognizant life and the governmental rationalities that have emerged since the 1960 is that both were public from the beginning. The vegetative body was, from the start, a collective and social problem. It was a matter of public concern and cultural meaning because it was tied to various networks and practices outside of medicine itself. We have seen the problems posed today by this economy of bodies extended across the spectrum of human affairs. This is why we can develop an account of the vegetative patient through the prism of biopolitics and, conversely, extend the biopolitical critique through the vegetative patient. The schema of cognizant life belongs to a vast territory within which strategies and techniques of government are deployed to both render intelligible and make actionable a form of life in the conduct of human beings.

Chapter 4: The Governmental Apparatus of the Vegetative Subject

1. Governing the end of life through the vegetative subject

In the second chapter, I argued that it would be fruitful to reconsider the vegetative patient as a biopolitical subject at the center of biopolitical struggles. This argument followed from a review of the Schiavo case in chapter one where we saw how Theresa Schiavo's body and brain, life and death, and care and termination were constructed and contested across medicine, law, economy, ethics, and public discourse. We gave a name to the general network of relations, practices, and discourses through which much of Schiavo's post-accident life was mediated: the "dying and death consensus." Not only was this consensus necessary to navigating the means and ends of institutional practices charged with the care of vegetative patients (and navigating inter-familial contestations over that care) but it also renormalized a series of discursive disruptions when the case became public. Indeed, a principal function of the consensus was, and remains, to contain, guide, and normalize struggles over the meaning of life and death, as well as the social arrangements of dying, by bringing about a scientifically verifiable, legally legitimate, ethically sound, personally dignified, and medically acceptable end to the life of an individual. At the same time, we saw that the consensus was aimed at neutralizing struggles of a more global character: public health policy costs, a general discourse of morality and ethics, legislative precedence, and informed consent in medical care. Indeed, the target of the consensus is not only the care of vegetative subjects, but a general experience of late modern societies: what we call "end of life."

I also argued in the second chapter that the “dying and death” consensus needed to be understood as an apparatus, a form of power specific to governmentality. What is unique in our period about our relation to life and death is that it has become an activity of governmental rationalities. The vegetative subject is an important figure in tracing the historical development of the dying and death apparatus. The life and death of this subject is one of the principal ways in which “the end of life” is an experience intelligible as an individual-biosocial problem.²⁵⁵ The function of the previous chapter was to produce one major component of this subject: a genealogy of life, specific to the nervous system and the brain, which in the 20th century assumes a central medical, legal, and epistemological position as a space between life and death. We gave the name *cognizant life* to this form of life. As I noted, cognizant life -- the bare biological activity of the brain sufficient to produce self-aware mental life -- was given its scientific and medical forms between an anthropocentric category of brain death and a physicalist discourse of mental life specific to cognitive science. Cognizant life is a paradox of a particular kind: while it asserts that biological-cognitive processes are the basic conditions for the mental

²⁵⁵ Vegetative patients are not the only way, of course, that we encounter the end of life. Indeed, all manner of medical cases and social “problems” make up, today, the “end of life” experience. One must remember, for example, that by 1965 the problem of end of life was more or less recognized as a problem of the state in the enactment of Medicare, which provided social and medical insurance for the aged and severely handicapped. In the large end of life literature, we find a multitude of topics including chronic and terminal diseases, elder and palliative care, scientific experimentation, grief and bereavement, the management of pain and suffering, and so on. However, as a general field of experience, certain dominant rules, procedures, stakes, and worries are widely shared. The vegetative subject, I argue, is a special case in this literature which tends to, as a hard case, concentrate the majority of questions of end of life into a single plane of concerns, care, welfare, litigation, bioethics, and so on.

life of a thinking being, it is by definition the mental life specific to a human subject, since there is nothing about cognitive science's account of mental life which is ontologically human. Rather, cognitive processes are technical, subjectless processes, and the cognitive subject is a subjectless subject.

We must consider now how cognizant life makes it possible to think about the "end of life" as a biopolitical struggle which requires a governmental response through an apparatus. How does the vegetative subject, though cognizant life, appear in relation to dying and death? What is the nature of the relation to dying and death of a subjectless patient? Answering these two questions identify the conditions on which a governmental response to the vegetative subject depends. They are given, however, a general character. What, then, are the challenges which we face at end of *our* lives; how will we encounter and deal with them; what aims, means, and ends should we seek to secure for ourselves; and what global social, legal, economic, or political issues emerge in order to achieve a dignified, meaningful death? These are some of the questions to which the governmental regulation of the vegetative subject in relation to its life and death has been directed. It is with respect to this topic that "dying and death" has become an "approach" to a whole space of decisions, choices, rights, interests, obligations, and ethics. It is by approaching dying and death in and through the vegetative subject that, for example, the high-cost of near-death medicaid financing is given its reality; that informed consent and advance directives are given their moral weight; and that palliative care and the refusal of aggressive treatment are seen as a means to a dignified death and, at the same time, as a means of reducing end of life costs. The vegetative subject at the end of life draws into

its orbit all matters of public health policies, private rights, moral obligations, state provisions, discourses of family and disability, and economic sustainability that, together, require a global governmental apparatus to manage.

I want to emphasize that the vegetative subject is not the sole vehicle of the dying and death apparatus. Yet cognizant life concentrates a discourse of life that provides a hard, limiting case to the dying and death apparatus. If our general question has been to ask what it means that life and death have been redefined in the last century, I think that we now see the answer in the following way. The redefinition of life and death, partly through the figure of the vegetative subject, allowed for a biopolitical form of the dying and death experience to emerge -- “the end of life” -- through which governmental rationalities of power have responded by regulating, managing, and intervening in dying and death as a simultaneously individual and collective field of problems, conduct, and interests. The vegetative subject is an historical figure through which we can understand not only how biological knowledges ground a discourse of human life, but also how a governmental apparatus propel and reproduce those redefinitions in material and discursive practices oriented to death. What are the specific forms of power and techniques of individualization which together worked to make these redefinitions of life and death intelligible to a general social body; or together allowed the courts, ethicists, and the state to determine a series of norms by which to regulate our end of life? And, finally, what are the ways we’ve come to understand our own end of life, or that of others, as questions with which we need to concern ourselves? The genealogy of life specific to the vegetative subject, and the governmental apparatuses that aim to govern

and regulate the care, welfare, cost, and meaning of the vegetative subject, allow us to interpret differently the forms of power which we use to think, imagine, and govern our own end of life as a fundamental experience of life and death in modern social life.

The problem of a subjectless subject -- the essential problem of cognizant life -- goes to the heart of the biopolitical struggles which take place inside the dying and death apparatus. Among the many strategies of this apparatus, I wish in this introduction to refer to a particular one. The most important character of the apparatus is to produce personhood; to endow the biopolitical subject of the “end of life” with personhood. It bears repeating that by the term “subjectless” I mean to identify the constructed form of an individual life in order to make it intelligible and recognizable to discourses and practices. In relation to an “experience” that obliterates the subject (death), this apparatus seeks to define, socialize, politicize, and economize dying and death by making what is centrally at stake in the biological struggles over death the standing of the human being *as a* subject. Adorned in universalistic garb, armed with the concept of political and moral rights, nothing appears more important to this apparatus than to dignify, respect and protect personhood. Is there not at least a paradox in the fact that a major form of this apparatus’ functioning goes through the subjectless subject, the vegetative subject? The fact that the subjectless subject occupies such a central place in the operations of the “end of life” apparatus is actually one of the conditions on which it keeps reproducing itself: so long as there is an ambiguity, or uncertainty, about the status of a human person in a “living” human body where there remains some cerebral activity, the “end of life” apparatus will have something to say. We must invert the idea that institutions,

discourses, and practices at the “end of life” merely respond to subjects who are already constituted and facing death. Instead, we must investigate how a governmental apparatus takes as one of its preconditions a “void of personhood,” so that its principal function is to endow a dying body with personhood.

Its moral claims notwithstanding, we must also resist the notion that this apparatus is politically neutral. Rationalities of government animate techniques and discourses that attempt to achieve certain global (social, political, economic) ends by intervening into, and structuring, the social body so as to maximize the way individuals may act “freely” on a field of conduct. Techniques and rationalities of government entail subjectification processes through which individuals recognize themselves as particular kinds of free subjects in relation to themselves and to others who must act freely on a particular field of activity. We must see that the “dying and death consensus” is an apparatus that has both formed, and been formed through the experience of “end of life” as a biopolitical and governmental problem. To be sure, the vegetative subject is not the *principal* target of this apparatus -- the apparatus is not specific to the vegetative body or subject -- but it is one of the main figures through which the apparatus reproduces itself across various domains of human activity.

2. The subject beyond health: medicalizing consciousness and the vegetative state

In this section I focus on how the medical intelligibility of cognizant life, which is to say the detection of awareness and consciousness, functions as an arm of a more general governmental apparatus of the vegetative subject. This function turns on how,

over nearly the last half century, consciousness has been medicalized. The medicalization of consciousness is grounded in two constitutive problematizations of cognizant life. The first is that the diagnosis of consciousness, and the prognosis for its disorders, are not grounded in epidemiology or etiology, but on the inference of awareness from behavior which *appears* to be that of an aware individual. In recent years, this problematization has become more dependent on cognitive neuroscience: the brain's activity is itself behavior, responsible for the production of inner awareness, through neural-cognitive processes that are subjectless but which appear, in neuroimaging, to be that of a subject. The second problematization of cognizant life refers to the medical management of vegetative patients. Vegetative subjects are those who have reached the "end" of health; for whom nothing more can be done; where care becomes futile or a burden; where medical care itself comes to be understood as potential harm; and where, finally, a relation to the "end of life," mediated by the body, becomes intelligible and necessary. The irony of the medical production of the vegetative subject is two-fold: not only does a medical regime for recognizing the absence of cognizant life entail the "end of health" for that patient, but a relation of the subject to "death" is thereby made and then mediated through medical care of the body. The function of medicalizing cognizant life is to recognize a human life, and produce a subject, who is beyond health, but not dead, such that it enters into a particular ethical, economic, and legal relationship with the "end of life."

In the early 1970s, Bryan Jennet and his colleagues published a series of articles proposing criteria for assessing the degree and outcomes of serious brain damage.²⁵⁶ Traditional measures, such as the survival of patients or their return to work, were inappropriate yardsticks for diagnosing and gauging the outcome of the profound physical and mental deficits suffered by brain damaged patients. A particular focus was placed on making the vegetative state intelligible. What was needed were new objects, criteria, measures, and categories to represent the reduction in the “quality of life” of the patient. The central category through which assessments of a variety of brain injuries were drawn was consciousness. There exists, Jennett argued, a general range of “impairments of consciousness” which correspond to “expressions of dysfunction of the brain as a whole.”²⁵⁷ The forms of brain dysfunction that cause disorders of consciousness, however, are as variable as the impairments of consciousness themselves. The reverse is likewise true: identical symptoms of impaired mental states can have a number of dysfunctional neural correlates. These wide disparities between neural substrates and mental symptoms of impaired consciousness make it nearly impossible for

²⁵⁶ Teasdale, Graham, and Bryan Jennett. 1974. “Assessment of coma and impaired consciousness. A practical scale.” *Lancet* 304 (7872): 81-84. Teasdale, Graham, Bryan Jennett, and Robert Knill-Jones. 1976. “Assessing and recording ‘conscious level.’” *Journal of Neurology, Neurosurgery, and Psychiatry* 37 (11): 1286. Jennett, B., G. Teasdale, R. Braakman, J. Minderhoud, and R. Knill-Jones. 1976. “Predicting outcome in individual patients after severe head injury.” *Lancet* 307 (7968): 1031-1034. Jennet, Bryan, and Michael Bond. 1976. “Assessment of Outcome After Severe Brain Damage.” *Lancet* 305 (7905): 480-484. Jennett, Bryan. 1976. “Assessment of the severity of head injury.” *Journal of Neurology, Neurosurgery, and Psychiatry* 39 (7): 647-655. Plum, F., and J. B. Posner. 1980. *The Diagnosis of Stupor and Coma*. Philadelphia, PA: FA Davis.

²⁵⁷ “Assessment of coma and impaired consciousness. A practical scale.” Pg. 81.

either a diagnosis or prognosis of “impaired consciousness” to rely on either the cerebral condition of the brain or the precise delineation of the mental symptoms.

However, the diagnosis of the vegetative state on a spectrum of “disorders of consciousness” is based on more than the level and form of consciousness itself. The vegetative state holds a particular pole position on this spectrum: as the basis on which consciousness is intelligible as a level or form in the first place. What is, then, this baseline description of consciousness? As Bernat laconically wrote in 2002, “the persistent vegetative state ... features the tragic and ironic dissociation of the two cardinal elements of human consciousness: wakefulness and awareness.”²⁵⁸ As we shall see below, both aspects are given a *behavioral* definition: that is, consciousness is embodied in behavior and is intelligible through behavior. What is interesting, however, is that consciousness remains internal to itself, even if it is expressed in the behaviors of an organism. Indeed, it is because it has been understood as activity internal to itself that consciousness is expressed and embodied in the behavior of individuals. Moreover, the ipseity of consciousness is bridged by what is, then, the main medical definition of consciousness. In 1980, Plum and Posner summarized the definition of awareness in consciousness as “the state of awareness of the self and the environment,” such that coma “is its opposite ... the total absence of awareness of self and environment even when the subject is externally stimulated.”²⁵⁹ Thus, not only was the impairment of consciousness

²⁵⁸ Bernat, J. L. 2002. “Questions remaining about the minimally conscious state.” *Neurology* 58: 337-338.

²⁵⁹ *The Diagnosis of Stupor and Coma*. Pg. 3.

tuned to the level and form of “awareness” or “alertness,” but it was also tuned to the wide range of behaviors elicited from patients in clinical tests used to determine consciousness.

The development and implementation of a spectrum of disorders of consciousness served many purposes at once. Most of them were practical. In the clinic, Jennett observed, brain injuries are dynamic: “between the extreme states of consciousness and coma stand a variety of altered states of consciousness.”²⁶⁰ Until the mid-20th century, brain injuries were catalogued encyclopedically according to either mental deficit or cerebral loss. But such distinctions were of little use in clinics where neither neurological nor psychiatric tests were readily available. In order to respond to the growing population of brain-injured patients, it was necessary, Jennett and Teasdale wrote, to devise a “generally applicable scheme of assessment” deployable to large numbers of hospitals.²⁶¹ Another practical advantage to developing a spectrum of consciousness disorders regards adjusting the management of care. Brain injuries are fluid; neuron plasticity produces oft-unpredictable results.²⁶² Although the devastating forms of brain damage necessary to cause severe impairments of consciousness are often unrecoverable,

²⁶⁰ “Assessment of coma and impaired consciousness. A practical scale.” Pg. 81.

²⁶¹ “To be generally accepted,” Jennett argued, “a system must be practical to use in a wide range of hospitals and by staff without special training.” *Ibid.* Pg. 81. Thus the pragmatic necessities of a scale of brain injuries required that the scale be accurate, clinically applicable on a routine basis by nurses and physicians across shifts, and widely distributable.

²⁶² DeFina, P., J. Fellus, M. Z. Polito, W. G. J. Thompson, R. S. Moser, and J. DeLuca. 2009. “The new neuroscience frontier: Promoting neuroplasticity and brain repair in Traumatic Brain Injury.” *The Clinical Neuropsychologist* 23 (8): 1391-1399.

there remain frequently reported “recoveries.”²⁶³ Thus, “new scales” for diagnosing brain injury were not only necessary to account for the variability of cerebral damage, but also to the possibility that brain injuries may be rehabilitated or simply ameliorate on their own. A key here is not just the temporal element -- the need to “assess and record changing states of altered consciousness” -- but also the goals of care.²⁶⁴ Such goals turn less on the “fact of survival” in patients, which implies a full recovery, than on the “quality of survival.” As Jennett argued in the 1970s, the assessment, classification, and management of brain injuries should not be based on probability of recovery, but on the potential for extremely modest improvements in the quality of life over a long period of time. All of these elements -- the clinical practicality of a diagnostic scheme, the temporal nature of diagnosis, the fluidity of consciousness itself, and the need for ongoing assessment -- all point to the difficulty of medicalizing cognizant life in order to produce a vegetative subject.

As I noted earlier, the intelligibility of the vegetative subject relies on the clinical reading of behavior and whether they embody and express consciousness. This clinical reading relies on a rubric of behavior aimed to determine whether a patient communicates consciousness. Plum and Posner, in their groundbreaking 1980 book on the clinical treatment of consciousness disorders, repeated this central issue: “the limits of

²⁶³ Giacino, J. T., S. Ashwal, N. Childs, R. Cranford, B. Jennett, D. I. Katz, J.P. Kelly, J. H. Rosenberg, J. Whyte, R. D. Zafonte, and N. D. Zasler. 2007. “The minimally conscious state: definition and diagnostic criteria.” *Neurology* 58: 349-353. Fins, Joseph J., Nicholas D. Schiff, and Kathleen M. Foley. 2007. “Late recovery from the minimally conscious state: Ethical and policy implications.” *Neurology* 68 (4): 304-307.

²⁶⁴ “Assessment of coma and impaired consciousness. A practical scale.” Pg. 82.

consciousness are hard to define satisfactorily and quantitatively and we can only infer self-awareness of others by their appearance and by their acts.”²⁶⁵ The system proposed by Jennett and his colleagues, the Glasgow Coma Scale (GCS) is not based on definitions of consciousness or coma but on the assessing the “level” of each. These levels correspond to the behavioral, bodily “responses” of patients to commands and tests. In the 1970s, three different aspects of behavioral response made up the GCS: motor, verbal, and ocular, “each of which can be accurately graded according to a rank order that indicates a degree of dysfunction.”²⁶⁶ Differentiations in response largely aimed at distinguishing merely reflexive from intentional behavior. In 1994, the Multi-Society Task Force on PVS expanded the indices of behavior to include tactile and noxious stimuli, as well as bodily symptoms, such as bowel and bladder incontinence and the

²⁶⁵ Plum, F., and J. B. Posner. 1980. *The Diagnosis of Stupor and Coma*. Philadelphia, PA: FA Davis. Pg. 3

²⁶⁶ *Ibid.* Pg. 82. Motor responses are graded on a spectrum ranging from, for example, “no response” to physical stimuli on the limbs, to reflexive behavior as a result of prodding, to “obeying commands” given verbally by the nurse or physician to the patient asking them to move. Ocular tests also rely on distinctions between reflex and response, the latter divided between responses to pain and speech. Verbal responses range from incomprehensible speech (“moaning and groaning but without any recognizable words”) to inappropriate speech (“intelligible articulation but used only in an exclamatory or random way”), through to orientation (“implies awareness of the self and the environment”). Each test is graded on a five point scale, their sum placing the patient somewhere on the GCS. Five point ranges make up the GCS, in the following order: death, persistent vegetative state, severe disability, moderate disability, and good recovery.

inability to swallow without aid.²⁶⁷ But these changes did not turn attention away from the main goal of determining in behaviors the “intention” to respond. For example, when in 1996 an international working group established more global standards for defining the protocol of assessing the vegetative state, they included emotional responses to the standard clinical tests, and emphasized cognitive functioning and “inner awareness” as behaviors that could be ascertained through examinations.²⁶⁸ Despite, or perhaps because of, these refinements in the behavioral and bodily reading of alertness and awareness, the interpretation of consciousness (and consciousness disorders) is not so much a system of accuracy as it is a system of clinical certainty. The advantage of these tests, from a clinical point of view, is that they are easy to administer, repeat, record, and conduct over a long period of time. But at the heart of the matter mains the fact that consciousness must be inferred.

In the last decade and a half, measures to strengthen the diagnosis of behavior and intention have emphasized the necessity of repeated consensus building. The main reason for this is the basic uncertainty of using a behavioral paradigm to detect awareness and its absence. “No one,” reported the presidential committee on states of altered consciousness, “can ever have more than inferential evidence of consciousness in another

²⁶⁷ Multi-Society Task Force on PVS. 1994. “Medical aspects of the persistent vegetative state, Part 1.” *The New England Journal of Medicine* 330: 1499-1507. Multi-Society Task Force on PVS. 1994. “Medical aspects of the persistent vegetative state, Part 2.” *The New England Journal of Medicine* 330: 1572-9.

²⁶⁸ Andrews, K. 1996. “International Working Party on the Management of the Vegetative State: summary report.” *Brain Injury* 10 (11): 797-806.

person.”²⁶⁹ Reports on the vegetative state in patients have demonstrated its wide heterogeneity. This is due to reports of self-recovery and to brain rehabilitation techniques (through electrical or metabolic stimulation) that have become part of the medical effort to care for the severely brain damaged.²⁷⁰ Many reports have continued to find that diagnoses of the vegetative state are not reliable.²⁷¹ Sometimes, the condition is temporary; recoveries are, though unusual, not impossible.²⁷² Much of the literature today seeks to produce practical guides and norms for implementing the behavioral paradigm for detecting awareness in, and managing the care of, vegetative patients. These types of reports are much more widely representative of the literature than are

²⁶⁹ President’s Commission For the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research. 1983. *Deciding to Forego Life-Sustaining Treatment*. Pp. 174-175.

²⁷⁰ See, for example: Childs, N. L., and W. N. Mercer. 1996. “Brief Report: Late Improvement in Consciousness after post-traumatic vegetative state.” *The New England Journal of Medicine* 334: 24-25. Arts, W. F. M., H. R. van Dongen, J. van Hofvan Duin, and E. Lammens. 1985. “Unexpected improvement after prolonged posttraumatic vegetative state.” *Journal of Neurology, Neurosurgery, and Psychiatry* 48: 1300-3. Andrews, K. 1993. “Recovery of patients after four months or more in the persistent vegetative state.” *British Medical Journal* 306: 1597-600.

²⁷¹ Childs, N.L., W.N. Mercer, and H.W. Childs. 1993. “Accuracy of diagnosis of persistent vegetative state.” *Neurology* 43: 1465-1467. Andrews, K., L. Murphy, R. Munday, and C. Littlewood. 1996. “Misdiagnosis of the vegetative state: retrospective study in a rehabilitation unit.” *British Medical Journal* 313: 13-16.

²⁷² Bekinschtein, T., C. Tiberti, J. Nikilson, M. Tamashiro, M. Ron, S. Carpintiero, M. Villareal, C. Forcato, R. Leiguarda, and F. Manes. 2005. “Assessing Level of Consciousness and Cognitive Recovery from Vegetative State to Full Recovery.” *Neuropsychological Rehabilitation* 15 (3/4):307-322.

debates over the nature of diagnosis and management itself.²⁷³ The 1996 International working party for the vegetative state, for example, undertook its task because there was a need for a “protocol ... [that] should be developed for defining stages in, and recovery from, the vegetative state.”²⁷⁴ The new categories they proposed to define states “within” the vegetative state included, for example, “hyporesponsiveness,” “transitional / borderline state,” “inconsistent low awareness.”²⁷⁵ The fluidity, and inherent uncertainty, of the behavioral paradigm for detecting something as mercurial as the biological production of consciousness, has manifested itself not in the uncertainty of a diagnosis, but in the fundamentally difficult nature of “inferring” it within the clinic as a consensus-building issue.

²⁷³ Quality Standards Subcommittee of the American Academy of Neurology. 1995. “Practice parameters: assessment and management of patients in the persistent vegetative state.” *Neurology* 45: 1015-18. Working Group of Royal College of Physicians. 1996. “The permanent vegetative state.” *J R College of Physicians* 30: 119-21. Quality Standards Subcommittee of the American Academy of Neurology. 1995. “Practice Parameters for determining brain death in adults.” *Neurology* 45: 1012-4. Jennett B., R. Cranford, N. Zasler. 1997. “Consensus Statement on criteria for persistent vegetative state is being developed.” *British Medical Journal* 314: 1621-2. General Medical Council. 2002. *Withholding and Withdrawing Life-prolonging Treatments: Good Practice in Decision-making*. General Medical Council. British Medical Association. 2007. “Withholding and Withdrawing Life-prolonging Medical Treatment: Guidance for decision-making.” American Academy of Neurology. 1988. “Position of the American Academy of Neurology on certain aspects of the care and management of the persistent vegetative state patient: adopted by the Executive Board.” *Neurology* 39:125-6.

²⁷⁴ Andrews, K. 1996. “International Working Party on the Management of the Vegetative State: summary report.” *Brain Injury* 10 (11): 797-806.

²⁷⁵ “International Working Party on the Management of the Vegetative State: summary report.” Pg. 799.

Efforts to proceduralize the medicalization of cognizant life through consensus and behaviors of the body are now firmly established. However, in recent years there has been growing interest in cerebral processes themselves as forms of behavior. This development has gone hand in hand with the growing use and sophistication of neural rehabilitation techniques. For example, the 1994 report of the Multi-Society Task Force was among the first to make a distinction, within the definition of consciousness, between the “functional” and “cognitive” nature of consciousness. Functional consciousness refers to more “overt” expressions of consciousness, “the ability to learn and to perform adaptive tasks, mobility, self-care, and participation in recreational or vocational activities.”²⁷⁶ The “cognitive” dimension of consciousness refers to cerebral processes that are “voluntary behavioral responses” but which “not be immediately apparent.”²⁷⁷ While consciousness requires cognitive functioning, it may appear without any functional recovery.

Today, the detection of awareness in vegetative patients turns intensely on cerebral processes themselves. This development is often explained in technological terms: today’s neuro-imaging devices are accurate, reliable, advanced tools for recording and interpreting cerebral processes. To be sure, many brain-imaging technologies -- computerized tomography (CT), proton-emission tomography (PET) and electro-encephalographic (EEG) -- have been used since the late 1970s. Jennett and colleagues

²⁷⁶ “Medical aspects of the persistent vegetative state, Part 2.” Pg. 1572.

²⁷⁷ *Ibid.* Pg. 1572.

were among the first to report their use in detecting awareness.²⁷⁸ The use of neural imaging technologies today focus particularly on functional magnetic resonance imaging (fMRI). The advantage of fMRI is that it captures the electrical activation of brain areas over time and in three dimensions. Rather than two-dimensional images of the brain, one can detect cerebral processes over the topography of the brain as they happen. The claim here is not only that we can detect more fine-grained processes in the brain, but that we can structure clinical exams with patients in an fMRI machine to record possibly intentional responses of the brain to various stimuli.

I think there is a more basic reason why we have seen the turn to the brain more centrally in detecting awareness and consciousness. In the last chapter, we saw that the brain's activities are rendered intelligible as cognitive processes such that the mind is *internal to itself*. Cognitive neuroscience has, in the last 20 years, extended this intelligibility to the diagnosis of disorders of consciousness. This was already implicit in the 1994 report of the Multi-Society Task Force on PVS when it stated that cognitive

²⁷⁸ Snoek, J., B. Jennett, J. H. Adams, D. I. Graham, and D. Doyle. 1979. "Computerised tomography after recent severe head injury in patients without acute intracranial haematoma." *Journal of Neurology, Neurosurgery, and Psychiatry* 42 (3): 215-225. Galbraith, S., G. Teasdale, and C. Blaiklock. 1977. "EMI scanner diagnosis of acute traumatic intracranial haematoma -reliability of a neurosurgeon's interpretations." *British Medical Journal* 2: 1371-1373. Jennett, B., G. Teasdale, S. Galbraith, L. Steven. 1977. "The role of the EMI scan in the diagnosis and management of traumatic intracranial haematoma." Pp. 62-66 in *Computerised Axial Tomography in Clinical Practice*, edited by du Boulay, G., and I. F. Moseley. 1978. Berlin, Germany: Springer Verlag. Lanksch, W., T. Grumme, and E. Kazner. 1978. "Correlations between clinical symptoms and computerized tomography findings in closed head injuries." Pp-27-29 in *Advances in Neurosurgery vol.5: Head injuries: Tumours of the Cerebellar Region*, edited by Frowein, R. A., O. Wilcke, A. Karimi- Nejad, M. Brock, and M. Klinger. Berlin, Germany: Springer-Verlag.

function could exist without functional recovery. In 1996, the International Working Party on PVS described “cognitive functioning” not only as that which accounts for “inner awareness,” but that which can support the future of the neural rehabilitation (through electrical stimulation) and neural regeneration. Thus the trend in adopting cognition as a form of behavior itself has gone hand-in-hand with the notion that we can treat the brain in the areas where it has been damaged and, more specifically, in areas that account for certain kinds of behavior and thought.

In 2006, a group of researchers in England published an influential and widely read report on a number of fMRI experiments they had conducted on vegetative patients. “Although the diagnosis [of PVS] depends,” they wrote, “on there being no reproducible evidence of purposeful behavior in response to external stimulation, recent functional neuroimaging studies have suggested that ‘islands’ of preserved brain function may exist in ... [some] patients who have been diagnosed as vegetative.”²⁷⁹ Their hypothesis was that fMRI studies could be used to “detect conscious awareness in patients who are assumed to be vegetative yet retain *cognitive* abilities that have evaded detection using

²⁷⁹ The main reason given for the continued existence of “islands” of cognitive functioning is that we have had the wrong model of cognitive integration in the brain. At least since the 1970s, it has been assumed that “higher,” functional areas of the brain (in the cortex) which account for language, speech, emotion, social interaction, and so on, are vertically dependent on “lower” functional areas that control attention, relaxation, orientation, and so on. Conventional theory argues for a building block approach: higher cognitive functions are not possible without working lower cognitive functions. These recent fMRI studies, however, have challenged this view by saying that while there may be a *disconnection* between lower and higher cerebral areas in the brain, higher and lower cognitive functions may both remain intact. Thus, “islands” of functional activity are somewhat self-sufficient and correspond to what Laureys calls “awareness-regions” in the brain. See Laureys, S. 2005. “The neural correlate of (un)awareness: lessons from the vegetative state.” *Trends in Cognitive Sciences* 9 (12): 556-559.

standard clinical methods.”²⁸⁰ One experiment was conducted as follows. Once a vegetative patient was placed in an fMRI machine, they were prompted to “perform two mental imagery tasks at specific points during the space.”²⁸¹ One task involved imagining playing a game of tennis; the other, imagining a visit through the rooms of the patient’s house. These tasks were given verbally. The “neural responses,” they reported, “were indistinguishable from those observed in healthy volunteers performing the same imagery tasks in the scanner.”²⁸² The authors of the paper claimed that, “despite fulfilling the clinical criteria for a diagnosis of the vegetative state, this patient retained the ability to understand spoken commands and to *respond to them through her brain activity*, rather than through speech or movement.”²⁸³ Experiments such as these have been reproduced in a variety of contexts. They represent a dramatic shift in the behavioral paradigm in the detection of consciousness. Indeed, researchers refer to this behavior as “cognitively mediated behavior;” activation patterns in the brain are themselves voluntary, purposeful *responses*.²⁸⁴ The large number of experiments in cognitively mediated behavior to

²⁸⁰ Owen, A. M., M. R. Coleman, M. Boly, M. H. Davis, S. Laureys, and J. D. Pickard. 2006. “Detecting Awareness in the Vegetative State.” *Science* 313 (5792): 1402. One oft-cited neurological theory of consciousness on which many of these studies rely is: Baars, B. J. 1988. *A Cognitive Theory of Consciousness*. Cambridge, UK: Cambridge University Press.

²⁸¹ “Detecting Awareness in the Vegetative State.” Pg. 1402.

²⁸² “Detecting Awareness in the Vegetative State.” Pg. 1402.

²⁸³ “Detecting Awareness in the Vegetative State.” Pg. 1402. *My emphasis*.

²⁸⁴ Bekinschtein T., T. Niklison, L. Sigman, F. Manes, R. Leiguarda, J. Armony, A. M. Owen, S. Carpintiero, and L. Olmos. 2004. “Emotion processing in the minimally conscious state.” *Journal of Neurology, Neurosurgery, and Psychiatry*. 75 (5): 788-793.

detect consciousness have cast enormous doubt on diagnosed vegetative patients.

Experiments range from recognizing faces²⁸⁵, language comprehension,²⁸⁶ proprioception,²⁸⁷ to recognizing one's own name or those of friends.²⁸⁸ And, with the increasing availability of fMRI scanners in ICU wards, numerous reports now aim to making brain-imaging part of the clinical repertoire for the diagnosis of vegetative states and, more generally, for disorders of consciousness.²⁸⁹

What I have tried to show so far is that the medicalization of cognizant life, and the production of the vegetative subject, required a general schema of disorders of

²⁸⁵ Menon, David K., A. M. Owen, E. J. Williams, P. S. Minhas, C. M. C. Allen, S. J. Boniface, J. D. Pickard, and the Wolfson Brain Imaging Centre Team. 1998. "Cortical processing in persistent vegetative state." *Lancet* 352 (9123): 200. Owen, Adrian M., Martin R. Coleman, David K. Menon, Emma L. Berry, Ingrid S. Johnsrude, Jennifer M. Rodd, Matthew H. Davis, and John D. Pickard. 2005. "Using a hierarchical approach to investigate residual auditory cognition in persistent vegetative state." *Progress in Brain Research* 150: 457-471.

²⁸⁶ Laureys, S., F. Perrin, M-E. Faymonville, C. Schnakers, V. Bartsch, S. Majerus, G. Moonen, P. Maquet. 2004. "Cerebral processing in the minimally conscious state." *Neurology* 63: 916-918.

²⁸⁷ Monti, Martin M., Audrey Vanhaudenhuyse, Martin R. Coleman, Melanie Boly, John D. Pickard, Luaba Tshibanda, Adrian M. Owen, and Steven Laureys. 2010. "Willfull Modulation of Brain Activity in Disorders of Consciousness." *The New England Journal of Medicine* 362 (7): 579-589.

²⁸⁸ Schnakers, C., F. Perrin, M. Schabus, S. Majerus, D. Ledoux, P. Damas, M. Boly, A. Vanhaudenhuyse, M-A. Bruno, G. Moonen and S. Laureys. 2008. "Voluntary brain processing in disorders of consciousness." *Neurology* 71: 1614-1620. Staffen, W., M. Kronbichler, and M. Aichhorn. 2006. "Selective brain activity in response to one's own name in the persistent vegetative state." *Journal of Neurology, Neurosurgery, and Psychiatry* 77 (12): 1383-1384.

²⁸⁹ Coleman, M. R., M. H. Davis, J. M. Rodd, T. Robson, A. Ali, A. M. Owen, and J. D. Pickard. 2009. "Towards the routine use of brain imaging to aid the clinical diagnosis of disorders of consciousness." *Brain* 132: 2541-2552.

consciousness to be produced on which a behavioral paradigm could be implemented to infer conscious, aware behaviors in the patient. The need for a general schema corresponded to the vast heterogeneity and plurality of neurological causes of absent-awareness. The inherent uncertainty in the detection of patient awareness requires that a set of conventions, rules, and procedures be implemented such that mitigating errors and risk produce an interpretive consensus. In the last decade, this paradigm has shifted from observations of the body to observations of cerebral processes as expressions of responsive behavior itself. But we know that cognitive neuroscience will never answer the question of subjectivity because its epistemological foundations make no ontological claims about the specificity of human mental life and self-awareness. It is a purely technical science -- a science now making claims about the human self based on the appearance and resemblance of cognitive processes to "normal" processes in a population.

The other major function of the medicalization of cognizant life is to produce the end of health and, simultaneously, the beginning of human action to intervene in the "dying process." Is it possible to say, for example, that a permanently unaware, unconscious patient, has health that can be provided for by medicine? If a patient cannot be recognized in terms of health, is there any role for medicine? These questions have been of major import in the medicalization of vegetative patients and disorders of consciousness more generally. "Once it can be determined," writes Cranford, a prominent neurologist in the vegetative literature, "that a human being is permanently

unconscious, the traditional goals of medicine can no longer be served.”²⁹⁰ “A patient in a persistent vegetative state,” he continues, “has no health; health is an empty concept for a patient without consciousness.”²⁹¹ This argument is echoed in other recent guides issued by major medical societies on the vegetative state, where an absence of health entails confronting end of life care: “there needs to be a recognition that there comes a point in all lives where no more can be reasonably or helpfully done to benefit patients.”²⁹² “It is not an appropriate goal of medicine,” another states, “to prolong life at all costs, with no regard to its quality or the burdens of treatment.”²⁹³ But how are quality of life and the burdens of care are to be interpreted how? How can we decide “what level of ‘recovery’ would warrant continued treatment being continued and below which treatment could be withdrawn?”²⁹⁴ And how is this process of withdrawal to be implemented?

The limits of health, indexed by the incapacity of returning the brain to consciousness, and the new attention to the dying process, turns the medical gaze back to

²⁹⁰ Cranford, R. E., and D. R. Smith. 1988. “Consciousness: The Most Critical Moral (Constitutional) Standard for Human Personhood.” *The American Journal of Law & Medicine* 8 (2/3): 233-248. See also: Cranford, R. E. 1988. *The Persistent Vegetative State: The Medical Reality (Getting the Facts Straight)*. Hasting Center Report 18 (27/28).

²⁹¹ “Consciousness: The Most Critical Moral (Constitutional) Standard for Human Personhood.” Pg. 235.

²⁹² British Medical Association. 2007. *Withholding and Withdrawing Life-prolonging Medical Treatment: Guidance for decision-making*. British Medical Journal Books.

²⁹³ General Medical Council. 2002. *Withholding and Withdrawing Life-prolonging Treatments: Good Practice in Decision-making*. General Medical Council.

²⁹⁴ Andrews, Keith. 2004. “Medical decision making in the vegetative state: Withdrawal of nutrition and hydration” *NeuroRehabilitation* 19: 299-304.

the body. In devastating disorders of consciousness, including the vegetative state, the body is alert, moving, reflexive, and alive. Yet vegetative patients must be treated for infections; their muscles must be massaged, stimulated, and exercised; their incontinence requires constant attention; often their nutrition and hydration is supplied by machines or devices that break or become disconnected because of the patient's movement. Nothing is particularly difficult in any of this. Most of these procedures are routine in ICU-wards and palliative care centers. But what *is* new is that these procedures are now seen as needlessly prolonging a process which, as we shall see in the next section, is interpreted as a "dying process;" medical procedures are an obstacle to the death of the vegetative subject; or, more correctly, the vegetative subject is the subject whose body is simultaneously that which is regulated and managed by medicine where medical care prolongs the dying process.

Many of the concepts used in the medical literature to make sense of this situation are taken from law, ethics, and economics. For example, medical care is interpreted in terms of beneficence and maleficence and cost / benefit analyses; a patient's quality of life is discussed in terms of best interests; and the question of providing futile care is a debate over "social goals" as opposed to individual interest. Particular questions often go along with the reconceptualization of medical care and patients who receive it. What is the primary goal of medicine? What does it mean to prolong the life of a human being without improvements in the quality of health? What is the duty, if any, to care for those without any quality of life? What is the benefit or harm of providing care and how do we structure the best interests of the patient? Indeed, are interests the proper way to

represent this patient's medical needs? Can we even speak in terms of needs for a patient who cannot benefit from medical care? Is there a useful distinction between basic care and extraordinary care, and when have we reached a point of futility?

The vegetative subject is a subject who is beyond health but not dead, where a body continues to live in relations of dependence that, while medically futile, require the work of a medical hand. While a diagnosis or prognosis of PVS is in limbo, the procedures that keep the body alive are "life sustaining." But as soon as a point of "end of health" has been reached, those same bodily interventions come to be read as medicine drawing-out the dying process. The irony of medicalizing cognizant life and its absence is that the medical interventions on the body which halted death are also the practices which may needlessly prolong living process. Some have argued that defining death as other than biological will correct this issue, although they still argue that consciousness is the most important characteristic that defines human beings.²⁹⁵ Whatever the case, neuroscience will continue to reshape the cognitive landscape; consciousness is an infinite horizon of investigation where new claims about what constitutes self-awareness will continue to develop. What can't be escaped is that producing a vegetative subject

²⁹⁵ Halevy, A., and B. Brody. 1993. "Brain Death: Reconciling Definitions, Criteria, and Tests." *Annals of Internal Medicine* 119 (6): 519-525. These authors argue, for example, that rather than a biological definition of death to decide when to remove life-support systems, the "appropriate use of social resources should serve as the justification for the unilateral withholding or withdrawing of care." This criteria could be applied to any number of medical cases. However, the authors still insist that, in the case of the vegetative subject or permanently unconscious patient, the cessation of consciousness entails the misappropriation of finite social resources and therefore legitimates the withdrawal of life-support systems. See also: Chiong, W. 2005. "Brain Death without Definitions." *Hastings Center Report* 35 (6): 20-30.

through cognizant life entails transforming a situation from a problem of health (which can be the aim of medicine) to one that goes beyond health, toward a dying process, mediated by medicine.

It is at this point that the medicalization of cognizant life turns into an end of life process that is necessary to confront because it has become a responsibility. The act of sustaining life early on produces a form of life to which one has obligations; the forms of care on which the body requires to live are not simply those of machines, but those of individuals as well. The vegetative subject renders visible a limit of health at the point where a decision on life must be made *per se*, and also regulates how and when the life of a human being enters a definitive stage of end of life that must be enforced by others. When the prognosis is that of a permanent vegetative state with no hope of any recovery, attention returns to the body: what are we allowed to do with this mere body? Should artificial nutrition and hydration be removed? How should we structure such a process? What is at stake in this decision? Is there a role for the physician? Is there a “natural” way to die? This is why the body, or the feeding tube, of the patient in relation to cognizant life becomes a central mediator of the end-of-life as such. While it is the functional operations of the brain to produce consciousness that are the cyphers of consciousness and cognizant life, the life of the body is what determines how the end of life of the patient is regulated, managed, disallowed. At this moment, the vegetative subject expands beyond the medical domain and into ethics, economy, society, and culture. Yet medicine remains relevant because it mediates the actions that can bring about the death of a human being (since vegetative subjects are not dead). An

inescapable imperative of all the literature today on vegetative patients is ensuring that medical measures and practices protect the legal and ethical questions implicit in proceeding.

The medical intelligibility of the vegetative subject relies on a dynamic of problems, concepts and forces that continually undergoes change. Consider the number of factors at play: the fluidity of criteria for consciousness and interpretative uncertainties of medical diagnosis; technologies of bodily care and neural rehabilitation; the unpredictability of recovery; the technical capacity to sustain bodily life; the reliance on cognitive processes as expressions of consciousness in the brain; the polysemy of intentional or voluntary actions; and finally, the processes of dying mediated through the medical body. Each of these factors has undergone, and will continue to undergo, permutations. Cognitive neuroscience, for example, is already redefining the behavioral paradigm through which the the life of a patient is read as medically futile. The spectrum of “disorders of consciousness” expands not simply to be more “precise,” but to take on a growing variety of brain injuries. Definitions of brain death continue to hover around cognizant life, re-classifying who is alive and who is dead. Neuroscience will continue to advance its knowledge of the brain, technologies to maintain life and our capacity to rehabilitate the brain will improve. But all of these changes will never, in my view, resolve the problem of the vegetative subject. What they ensure, in fact, is that producing the vegetative subject means producing a subjectless subject who is beyond health yet still alive, for whom medical interventions that initially maintain life are, in the end, also those practices that must be regulated and legitimated to bring about dying and death.

The medicalization of cognizant life is a major force today in the production and circulation of the vegetative subject, one that entails a biopoliticization of the human being in relation to death. The production of a vegetative state and patient through medicine may appear self-evident; but the consequences of producing a medical intelligibility of cognizant life are not. The difficulty with the vegetative subject, and the reason it remains a source of biopolitical struggles, is that cognizant life is not only a biological, bare threshold of consciousness. It is produced after and *because* medicine has intervened to sustain the life of a human being. It entrenches the body and brain in relations of extreme dependence on the care of others. It emerges at the moment when attempts to recover health and consciousness have been exhausted and turn into a question of futility, burden, costs, and hopelessness. It is at this moment that cognizant life requires an intelligibility beyond medicine. Put differently, the legitimate practices that may bring about the death of an individual cannot be resolved within medicine. This is a form of life whose end of life care, beyond health, is taken up as an ethical, economic, social, and legal question. What is significant, then, about the medicalization of cognizant life is that its main function is to reach a position of medical undecidability about life which medicine must at the same time administer -- but only after the vegetative subject has entered a new domain of thought and practice.

3. The legal and ethical production of cognizant life beyond health

The subjectlessness of cognizant life is not resolved by medicine and cognitive neuroscience. In fact, both perpetuate subjectlessness. Yet the conditions under which

this subjectlessness is seen as a problem have changed. Medicine has sustained cognizant life through machines of the body (artificial nutrition and hydration), concepts about a relation to dying (the vegetative state is not brain death), and practices of care (routine care of the body), while cognitive neuroscience has invoked cognizant life to form an endless inquiry into the self-actualizing nervous processes of mind and the self.

Cognizant life exceeds medicine and cognitive neuroscience at the moment it expresses the responsibility to care for a person beyond health; to consider the qualities of human subjectivity beyond a cognitive or biological intelligibility; and to make sense, practically, of a being who may continue to exist among others beyond disease. I want to explore here how the question, “what is to be done,” was answered by another: who is the subject of cognizant life beyond medicine, to which a corollary question was needed, “what is the basic experience at play here?” It seems to me these questions are inseparable from the fact that cognizant life’s new register emerges from the excess of a discourse of care, health, needs, and life (i.e., medicine), and into a new discourse of responsibility, liability, risk, and ethical conduct (i.e., government).

Ironically, the answers to these questions turn on whether a subjective experience can be given to a state that denotes, by definition, an incapacity to have subjective experience. It is nonsensical, of course, to ask what is like to know what it is like not to “be” anything. Yet it is possible to ask two related questions: what *would* it be like for me, at a future time, to be a vegetative subject; and, what *would* it be like for me if you are, or were to be, a vegetative subject? The subjectivity of cognizant life is that which belongs to a future medical state of non-being when the capacity to decide and act is

permanently gone. Or, the subjectivity of cognizant life is that of a relation to an other who is or could be in a medical state where the capacity to act is permanently gone. The whole problem of cognizant life here depends on the ability to secure, for some existing or future state of being in which one or an other “is” no longer, a subject as a *means* of acting -- either the subject who is vegetative or a particular other who must decide and act on their behalf. How are these subjects produced, who are they, and in relation to what experience?

The meaning of this future state of non-being, in which one must be a subject who can act, was given its foothold through a fundamental experience: death. Death, as brain-death, is constitutive of cognizant life, as we have seen. But when cognizant life emerges from its medical register, so too is its relation to death transformed. Since the 1970s, we have called the area of “being” pertinent to cognizant life the “end of life,” within which we have debated a “right to die.” In order to create a space of freedom where one may legitimately choose to die, right to die discourse has taken hold in a particular rubric: the right to terminate medical treatment. In the mid-to-late 1970s and early 1980s, many

state courts ruled on the termination of a variety of medical treatments.²⁹⁶ The case of the vegetative subject presented a unique problem, however. The termination of care requires negotiating a set of choices over which the patient does not have contemporaneous autonomy. And yet, physicians, lawyers, and the courts have insisted that the vegetative subject -- i.e., the “incompetent patient” -- is given the right to stop medical treatment. The vegetative subject at the end of life is more than a niche question. For the vegetative subject dominates legal and ethical reflection on the right to die as a problem of securing and enacting a certain form of freedom. Cognizant life renders death visible as a space where one’s capacity for self-determination must be protected precisely *because* one lacks the capacity for self-determination.

Cognizant life must therefore be seen as more than a biological account of bare consciousness. Its relation to the end of life as a medically-mediated relation to the freedom to refuse medical care entails recognizing the biological absence of particular

²⁹⁶ Chemotherapy: *Superintendent of Belchertown State Sch. v. Saikewicz*, 370 NE 2d 417 - Mass: Supreme Judicial Court. Blood transfusions: *In re Osborne*, 294 A. 2d 372 - DC: Court of Appeals 1972. *In re Brown*, 478 So. 2d 1033 - Miss: Supreme Court 1985. *In the matter of Spring*, 405 NE 2d 115 - Mass: Supreme Judicial Court, Franklin 1980 and *Commissioner of Correction v. Myers*, 399 NE 2d 452 - Mass: Supreme Judicial Court, Suffolk 1979. Amputation: *Lane v. Candura*, 376 NE 2d 1232 - Mass: Appeals Court, Middlesex 1978. Artificial nutrition and hydration: *Barber v. Superior Court*, 147 Cal. App. 3d 1006 - Cal: Court of Appeals, 2nd Dist., Div. 2 1983. *Matter of Conroy*, 486 A. 2d 1209 - NJ: Supreme Court 1985. *Brophy v. New England Sinai Hospital, Inc.*, 497 NE 2d 626 - Mass: Supreme Judicial Court, Norfolk 1986. *Bouvia v. Superior Court*, 179 Cal. App. 3d 1127 - Cal: Court of Appeals, 2nd Dist., Div. 2 1986. Clarke, A. M. 1980. “The Choice to Refuse or Withhold Medical Treatment: The Emerging Technology and Medical-ethical Consensus.” *Creighton Law Review* 13 (3):795-841.

human faculties.²⁹⁷ Producing a vegetative subject requires producing an autonomous subject at the moment when life exceeds health, yet remains medically alive, and occupies a new relation to death. Central to the law and ethics which make sense of cognizant life is to produce the act of deciding to end medical care *as an* act of self-determination. The arm of the apparatus we are investigating in this section aims to show how, in the last 30 years, we have developed a machinery of subjectivity that produces the vegetative subject, through cognizant life, as an autonomous, self-determining individual. Cognizant life renders intelligible the “essence” of the liberal subject through a biological state: to determine for oneself what actions ought to be pursued because, we say, they are in the best interests of the individual.

At the same time, producing an autonomous subject from cognizant life requires producing end of life experience as a field of choices, a set of relations to enact and manage those choices, and discursive distinctions that separate those choices and actions from other meanings. The proper production of a subject at the end of life distinguishes, for example, ethical conduct from murder; responsibility from abuse; and acts of legal self-determination from suicide. A major function of the apparatus that organizes the vegetative subject is to give a legal and moral intelligibility to death as a normative encounter with the death of other human beings. When cognizant life exceeds its medical

²⁹⁷ By posing the question of the subject through cognizant life, as opposed to the general category of consciousness, I hope to evade broad philosophical discussion of personhood. I am not trying to discuss here philosophical debates of full-fledged consciousness as a first-person experience, or the condition for subjectivity as such. Nor do I want to engage in debates about the qualities of persons, animal or human, and the capacity of both to have experience. Nor, finally, do I want to engage debates about the relation of our biology and sociability to personhood, or the meaning of death as a theological question.

intelligibility, it is mobilized again so that dying and death appear as a space of norms, procedures, rules, and regulations that mitigate legal risks and liabilities; that balance state and individual interests; and that police who can act for whom, when, where, and under what conditions. The vegetative subject beyond health, who is in a relation to death, allows not only individuals but also institutions to “follow the path of the bullet,” as it were, between one’s own actions and the death of another human being. At the same time, then, the vegetative subject is a means through which others (we) recognize themselves (ourselves) as those who may intervene in care for vegetative subjects; who may be responsible for them; and who may one day rely on others to act in their (our) stead in relation to their (our) death. Thus the legal and ethical machinery of subjectivity which produces the vegetative subject also faces the problem that individuals must act for others. The apparatus of the vegetative subject responds by producing a field of legitimate relations and actions on which others may legitimately act. This invokes a particular paradox: how is it that we can say we are acting for others in a way that an individual would act for himself or herself? And is this proxy action significant when it occupies a relation to dying and death? Let us turn, then, to how this “machinery of subjectivity” has produced its means and ends through law and bioethics.

It is generally agreed that the foundations of contemporary ethical and legal thought on the right to terminate medical care is the 1976 *Quinlan* case.²⁹⁸ Karen Quinlan was young woman who, three months following a devastating brain injury from a car accident, was diagnosed as being in a permanent vegetate state and required a

²⁹⁸ *In re Quinlan*, 355 A. 2d 647 - NJ: Supreme Court 1976.

respirator to live. Quinlan's father judged his daughter would not recover consciousness and asked for her respirator to be disconnected. Her physician refused, and the New Jersey attorney general threatened criminal prosecution of murder should her respirator be disconnected. Ms. Quinlan's father filed a suit to have his daughter's respirator removed. The New Jersey Supreme Court ruled that the constitutional right to privacy protected a right to refuse medical care, including for those who it called "incompetent patients," as actions of "self-determination." Furthermore, it ruled that, in the specific case of the vegetative patient, surrogates or guardians could exercise this right on the behalf of the vegetative patient: "If a putative decision by [Ms. Quinlan] to permit this non-cognitive, vegetative existence to terminate by natural forces is regarded as a valuable incident of her right of privacy, as we believe it to be, then it should not be discarded solely on the basis that her condition prevents her conscious exercise of the choice."²⁹⁹ "Conscious choice," here, is given a legal reading that, while having a constitutive relation to a biological state, is not determined by a biological state. Indeed, the court's view is that a "conscious choice" to end one's own medical care should be mobilized and protected most forcefully when patients cannot, biologically, exercise choice.

The court ruled, however, that constraints could be placed on the exercise of this right. These constraints correspond to a number of interests that not only the State may have, but that third parties may also have. In my view, however, we should understand

²⁹⁹ "We have concluded that Karen's right of privacy may be asserted on her behalf by her guardian under the peculiar circumstances here present." *In re Quinlan*, 355 A. 2d 647 - NJ: Supreme Court 1976. Pg. 41.

these constraints as enabling the production of a incompetent subject to exercise a competent's decision-making ability. For when the court repeatedly affirms that "self-determination" grounds the right to refuse medical treatment, it was ruling that the individual's relation to their own care was the grounds for the recognition of a practice of freedom. It ruled, for example, that self-determination trumps the state's chief interest in preserving life, and that a physician's actions to halt medical care is not homicide or suicide.³⁰⁰ However, the court also ruled that states may regulate how, when, and who could be selected in surrogate decision making, so long as this process did not infringe on the right of privacy but, instead, secured it. For example, states may make laws that give family members the right to act as surrogates because, the court argued, they know the patient best. States may also ensure that decisions by surrogates are made in line with the interests of the patient him- or herself, and establish procedures or committees that adjudicate the process of determining what those interests are. For example, to mitigate the liabilities that may emerge in surrogate decision making, the court endorsed the use of hospital ethics committees. "The most appealing factor in this technique," the court ruled, "seems to us to be the diffusion of ... responsibility for a decision, comparable in a way to the value of multi-judge courts in finally resolving on appeal difficult questions of

³⁰⁰ This was argued because the court judged that removing Ms. Quinlan's respirator would expose her not to an act of killing, but to her own natural death, to which she already had a "near" relation. On the potential criminality of terminating her treatment, the court ruled as follows: "We believe, first, that the ensuing death [from the cessation of the respirator] would not be homicide but rather expiration from existing natural causes. Secondly, even if it were to be regarded as homicide, it would not be unlawful. These conclusions rest upon definitional and constitutional bases. The termination of treatment pursuant to the right of privacy is, within the limitations of this case, *ipso facto* lawful." *In re Quinlan*, 355 A. 2d 647 - NJ: Supreme Court 1976. Pg. 51-52.

law.”³⁰¹ In short, the *Quinlan* ruling mobilized an autonomous subject as the precondition for the legal intelligibility of cognizant life, which must be secured by the state *so that* a patient may have a relation to his or her own medical care.

The court’s ruling thus provided a particular interpretation of the location of cognizant life, and the vegetative subject, in the space between life and death. Refusing treatment was tantamount to protecting and preserving life, in the court’s view, *because* it relieved the individual of a burden on freedom to die a natural death. The court accepted that Quinlan was neither dead nor brain-dead, and that removing her respirator would likely entail her imminent death. But it ruled that this imminent death was a “natural death” to which each individual is entitled. “The ending of artificial life-support,” and thereby the choice to have a natural death, “is a matter of self-determination,” and not an infringement on the state’s interest in life.³⁰² Similarly, the only way in which the actions that cause the death of this subject could be considered criminal was if they did not adhere to the wishes or interests of the patient. So long as the proper procedures are in place by which a legitimate proxy, or the patient, may assert the refusal of medical care as a free choice, there is no criminal liability. Indeed, the entire legal and ethical basis for a legitimate relation to one’s own death or the death of an other depended on recognizing a particular form of life as a burden on freedom, and where the protection of an autonomous subject could be recognized because, medically, their death appears as a

³⁰¹ *Ibid.* Pg. 50.

³⁰² *In re Quinlan*, 355 A. 2d 647 - NJ: Supreme Court 1976. Pg. 52. This was one grounds for the dissenting opinion by Justice Stevens in *Cruzan* 16 years later.

choice that affirms life. *Quinlan* was not the last word, of course, on end of life decision-making. But it inaugurates the general legal and ethical rubric in which a vegetative subject could come to be understood as a legal subject with the capacity to choose his or her own death because of the relation it occupied to life.

In the period between the New Jersey decision on *Quinlan* (1976) and the important decision by the US Supreme Court in *Cruzan* (1990) an enormously vast and complex reflection unfolded in the United States on how to recognize the vegetative subject as an end of life subject. State legislatures and courts developed a variety of standards, criteria, precedents, and articulations of the decision for individuals to refuse medical care. States expanded the decision to more kinds of medical patients. A range of legal sources for grounding the right to refuse medical care were used: some courts or legislatures found it in the common law right of informed consent; others in the constitutional right to privacy; still others, in religious freedom. State legislatures passed bills that recognized a right to refuse medical care. Others drafted different kinds of statutes, for example “do not resuscitate,” “natural death,” or “living will” statutes to protect autonomy and the right to choose to refuse medical care before one becomes incompetent. The range of criteria, standards, and rules for organizing a proxy’s right to withdraw their ward’s medical care were also diverse: some states enacted “best interests” laws, which stated that court-appointed guardians could select which interventions most benefit the patient while, at the same time, minimizing the burdens on the patient; other states drafted “substituted judgment,” which required that a surrogate, given the full legal powers of the incompetent patient, “ascertain the incompetent

person's actual interests and preferences" in order to make a decision that "would be made by the incompetent person, if that person were competent."³⁰³

The cognizant life of the vegetative subject was also deployed to make sense of the relations and institutions charged to administer end of life care. Indeed, a whole field of activity at the end of life could be organized *once* the vegetative subject (as the end of life subject) was given its legal and ethical foundation. A number of questions needed to be faced in order to make the end of life a legitimate set of practices. How, for example, do we distinguish between acts that kill and acts that are chosen to follow from one's own life but where one may die?³⁰⁴ What is the legal basis for the action of proxies who

³⁰³ *In re Mary Moe* 385 Mass. 555, 1982. C.f. Emanuel, E. J. 1988. "A Review of the Ethical and Legal Aspects of Terminating Care." *American Journal of Medicine* 84 (2): 291-301. For substituted judgment: *Superintendent of Belchertown State Sch. v. Saikewicz*, 370 NE 2d 417 - Mass: Supreme Judicial. For the common law right to refuse treatment, which rejects the substituted judgment standard, see *Matter of Storar*, 52 NY 2d 363 - NY: Court of Appeals 1981 and also see *In re Eichner*, 438 NYS 2d 266, 420 NE 2d 64, 52 NY 2d 363, 1981.

³⁰⁴ Morgan, R., and B. Harty-Golder. 1988. "Constitutional Development of Judicial Criteria in Right-to-die cases: from brain dead to persistent vegetative state." *Wake Forest L. Rev.* 23. Gilfix, Michael, Myra Gilfix, Kathleen Sinatra. 1986. "Law and medicine: The persistent vegetative state." *Journal of Head Trauma Rehabilitation* 1 (1): 63-71. Hirsch, D. E.. 1989. "Euthanasia: Is it Murder or Mercy Killing? A comparison of the criminal Laws in the United States, the Netherlands and Switzerland." Pg. 821 in *12 Loy. LA Int'l & Comp.* Molenda, F. A. 1988. "Active Euthanasia: Can it be Justified?" *Tulsa Law Journal* 24 (2). Crook, R. 1983. "Criminal Law -- Homicide -- Removal of Intravenous Feeding Line from Vegetative, Comatose patient at Family's request is not murder." *Cumberland Law Review* 15. *Barber v. Superior Court*, 147 Cal. App. 3d 1006, 195, Rptr. 484, 1983.

terminate life support?³⁰⁵ How does one balance the medical ethic to “sustain life” with a patient’s interests and court involvement in decision making? Do doctors and nurses have ethical interests and how can they be balanced with the individual’s freedom to choose to refuse medical care? Is “natural death” the most dignified form of death, and how do we secure it?³⁰⁶ Does it matter that we understand death as a process or event?³⁰⁷ How does the vegetative state change our definition of dying processes and the state of death?³⁰⁸ How do we assess our responsibility and obligations to those who might wish to die?³⁰⁹ Are vegetative subjects already on this process of dying, or are they not dead at

³⁰⁵ Krupp, A. N. 1988. “Health Care Surrogate Statutes: Ethics Pitfalls Threaten the Interests of Incompetent Patients.” *W. Va. L. Rev.* 101. Armstrong, P. W., and B. D. Colen. 1988. “From Quinlan to Jobes: The Courts and the PVS Patient.” *The Hastings Center Report* 18. Mackay, R. D. 1988. “Terminating life-sustaining treatment -- recent US developments.” *J Med Ethics* 14: 135-139. Eisenberg, K. G. 1988. “Privacy I: Surrogate Decision-Making for the Terminally Ill.” *Ann. Surv. Am. L.*

³⁰⁶ Ramsey, Paul. 1974. “The indignity of ‘death with dignity.’” Pp. 81-96 in *Death Inside Out*, edited by Seinfelds, Peter, and Robert M. Veatch. The Hastings Center Report. Morison, Robert S. 1974. “The Dignity of the Inevitable and the Necessary.” Pp. 97-100 in *Death Inside Out*, edited by Seinfelds, Peter, and Robert M. Veatch. The Hastings Center Report.

³⁰⁷ Morison, Robert S. 1974. “Death: Process or Event.” Pp. 63-70 in *Death Inside Out*, edited by Seinfelds, Peter, and Robert M. Veatch. The Hastings Center Report. Kass, Leon R. 1974. “Death as an Event” Pp. 71-80 in *Death Inside Out*, edited by Seinfelds, Peter, and Robert M. Veatch. The Hastings Center Report.

³⁰⁸ Emanuel, L. L. 1995. “Reexamining Death: The Asymptomatic Model and a Bounded Zone Definition.” *Hastings Center Report* 25 (4): 27-35.

³⁰⁹ Wolf, Susan M. 1986. “Ethics Committees in the Courts.” *Hastings Center Report* 16 (3): 12-15. Lynn, Joanne, and James F. Childress. 1983. “Must Patients Always be given Food and Water?” *The Hastings Center Report* 13 (5): 17-21.

all? What is the “quality of life” here, and what is ordinary vs. extraordinary care?³¹⁰ Is the person who removes life support following a legal, moral, or medical (make live) obligation, and how do we secure it?³¹¹ These were some of the principal questions that needed answers in order to construct the end of life as a field of activity. And they required, in my view, the recognition and articulation of the vegetative subject as an autonomous being in relation to their cognizant life.

What these legal and ethical developments amounted to was the recognition of a type of patient at the end of life as a space of freedom. As Emanuel sums up in 1988, five general questions were central to the recognition of this subject, each of which pertains to a unique aspect of cognizant life. Is there a right to terminate care? What forms of care may be terminated? From what types of patients may care be terminated? Who should act as the decision-maker? Finally, which criteria justify the termination of care? Implicit in all of these questions, of course, is both a particular notion of life and a particular framing of the encounter with death. To be sure, the questions about the end of life were not limited to vegetative subjects. They corresponded to a general population of

³¹⁰ This question was, and remains, particularly tied to Christian ethics which has undergone a change in the last century. For a mid-20th century orthodox interpretation: Pius XII. 1958. “Prolongation of Life.” *The Pope Speaks* 4: 395–396. Cronin, D. 1958. *The Moral Law in Regard to Ordinary and Extraordinary Means of Conserving Life*. Rome: Gregorian. Kelly, G. 1950. “The duty of using artificial means of preserving life.” *Theological Studies* 11: 203–220. For the change under Pope John Paul II: John Paul II. 2004. “Care for patients in a permanent vegetative state.” *Origins* 33: 739–752. Wildes, K. W. 1986. “Ordinary and Extraordinary Means and the Quality of Life.” *Theological Studies* 57: 500–512. Clark, P. 2006. “Tube Feedings and Persistent Vegetative State: Ordinary or Extraordinary Means?” *Christian Bioethics* 12 (1): 43–64.

³¹¹ Kutner, Luis. 1968. “Due Process of Euthanasia: The Living Will, A Proposal.” in *Ind. LJ.* 44.

individuals who might wish to terminate medical treatments. But it was *Quinlan*, and the vegetative subject, which began the “discussion about withdrawing and withholding care from patients.”³¹² The notion of life from which medical care may be withheld is that which is particular to cognizant life, which appears in the legal literature by various names: incompetent subjects; the hopelessly, sometimes terminally, ill; and those beyond health, but who remain alive by virtue of the medical interventions. As for the notion of death, it is important to note here the proximity, in terms of brain-death, of cognizant life to death. The ethical and legal reading of the vegetative subject is a stand-in for nearly any form of life which encounters death as a medical decision. This is why Emanuel could write in 1988 that, after *Quinlan*, “there appears to be general agreement that any type of medical intervention can be ethically and legally terminated.”³¹³ It was on these particular assumptions that life and death were recognized in a body where, as the *Quinlan* decision put it, “self-determination” could be asserted “against artificial life support or radical surgery ... in the face of irreversible, painful and certain imminent death.”³¹⁴

In short, the determination of a space of freedom and its exercise by a particular legal-ethical subject was not construed in relation to a specific form of life and death. Rather, it was the life of the vegetative subject that *reorganized* the general framing of

³¹² “Reexamining Death: The Asymptomatic Model and a Bounded Zone Definition.” Pg. 299.

³¹³ “Reexamining Death: The Asymptomatic Model and a Bounded Zone Definition.” Pg. 295.

³¹⁴ *In re Quinlan*, 355 A. 2d 647 - NJ: Supreme Court 1976. Pg. 51.

our encounter with death. And, reciprocally, it was this encounter with death that *reorganized* our notion of how life is affirmed and protected as a relation that individuals have to themselves and to each other. Both notions of life and death found a common point of articulation, however, in regulating who could act, for what purpose, and at which points in the space of freedom at the end of life. And this who, what, when, and where turned, at the same time, on the recognition of a particular kind of relation between a person and life that required special care, and a relation between a person and death, or at least an exposure to the finality of death, which required the protection, regulation, and sanction of a full measure of law and ethics.

The 15 year period after *Quinlan* represents an enormous, varied reflection on who the end of life subject may appear as and what practices of freedom this subject is endowed with. The Supreme Court *Cruzan* decision in 1990 represents, on the other hand, the narrowing of this discourse and the unification of a field of governmental conduct at the end of life. In 1983, Nancy Cruzan was the victim of a car accident that left her in a vegetative state. Four years into her rehabilitation with no progress, her family petitioned a Missouri trial court to have her feeding tube removed.³¹⁵ That court found that Ms. Cruzan, under state and federal constitutions, had a fundamental right, following from both the right to privacy and informed consent, to refuse medical treatment. Her parents argued in court that Ms. Cruzan would have not wanted to remain on life support and the court, satisfied that the evidence presented adequately described

³¹⁵ *Cruzan By Cruzan v. Harmon*, 760 SW 2d 408 - Mo: Supreme Court 1988.

her intent regarding her end of life, ordered that her feeding tube be withdrawn.³¹⁶ The Missouri Department of Health appealed the decision to the Supreme Court of Missouri and, in 1988, their appeal was upheld and Ms. Cruzan was ordered to remain on life-support.

Let us consider in some detail the Missouri Supreme Court decision, which was upheld by the US Supreme Court in 1990, for it represents the solidification of a particular reading of cognizant life as the substantive basis for the ethical and legal assertion of a right to die that we still have today. What is critical to the Missouri Supreme Court decision is how cognizant life is read between life and death. “This is a case,” the court asserted, “in which we are asked to allow the medical profession to *make Nancy die* by starvation and dehydration.”³¹⁷ The court regularly asserted that Ms. Cruzan’s vegetative state did not mean she existed in a relation of imminence with death. According to the court, “a single issue is presented: may a guardian order that all nutrition and hydration be withheld from an incompetent ward who is in a persistent vegetative state, who is *neither dead nor terminally ill*.”³¹⁸ The only certain relation with death that Ms. Cruzan could have, in the court’s view, is if her nutrition and hydration are removed: “her death is imminent only if she is denied food and water.”³¹⁹ This reasoning on the relation of cognizant life with death also broke with a widespread

³¹⁶ This language is drawn from *The Uniform Rights of the Terminally Ill Act*, ratified by Missouri in 1985.

³¹⁷ *Cruzan By Cruzan v. Harmon*. Pg. 412.

³¹⁸ *Cruzan By Cruzan v. Harmon*. Pg. 410.

³¹⁹ *Cruzan By Cruzan v. Harmon*. Pg. 419.

legal and juridical reading that the aim of a decision to stop medical treatment was for individuals to assert their own relation to death. The Missouri court, instead, assumed no relation to death existed whatsoever, except that which would be made if life-sustaining care were removed. The only biological quality that mattered was not, as other courts asserted, the quality of life of the patient, or whether or not they would want to live on mere life support, but that, since the vegetative is not equivalent to brain-death, the patient is essentially alive: the biological life of the patient was divorced from the any existential claim that biological life existed in relation death, about which a patient would have an interest.

The court's reading of Ms. Cruzan's "life" grounded its most substantive legal principle -- that the state has an interest prolonging life. "The state's interest in life," the majority wrote, "embraces two separate concerns: an interest in the prolongation of the life of the individual patient and an interest in the sanctity of life itself."³²⁰ Let us take each in turn. According to the court, the level of state interest in prolonging life turns on a specific calculus of balancing state and individual interests. It had become commonplace, in many other states, to negotiate this calculation based on a distinction between ordinary and extraordinary care. In the Missouri court's view, however, it was not up to a court to decide whether forms of care were ordinary or extraordinary. Its only concern was whether or not such care is *burdensome* to the patient. And in Ms. Cruzan's case, they ruled, the matter was more specific: it had to decide whether or not the *continuation* of care, as opposed to the care itself, was burdensome. Reasoning that

³²⁰ *Cruzan By Cruzan v. Harmon*. Pg. 419.

removing her care, “at this stage,” would be more burdensome than maintaining it, the court ruled that the prolongation of care, and thereby the prolongation of life, was not burdensome, and that the state could assert its interest in life. But what about sanctity of life? Here, the court invoked a general, unqualified, interest in life to combat the concept, embraced by many other states, that quality of life was a salient concern with respect to the decision to withdraw medical care. “The state’s concern with the sanctity of life,” ruled the court, “rests on the principle that life is precious and worthy of preservation without regard to its quality.”³²¹ In short, the biological vitality of Ms. Cruzan, such as it remained, was foregrounded and asserted in relation to the State’s interest in preserving life without regard to its “quality.”

In many ways, the Missouri court’s reading of cognizant life’s relation to life and death inverted what, for 14 years, had generally grown into a legal and ethical consensus. One could frame this inversion as follows: whereas many American courts and legislatures had sought to confront the difficult, social problem of organizing a framework for asserting individual will over a decayed and hopeless biological situation, the Missouri court rhetorically divorced this “experience” from its biological specificity and, instead, narrowly asserted that only the fact of being alive needed to be ruled on. Rather than assert that an individual’s vegetative state may be faced as an understandable relation with a social, existential relation with death, it asserted a purely technical reading: to remove or stop medical care would be *certain* to cause death. Rather than consider or invoke the indignities a person may feel about slowly decaying in a

³²¹ *Cruzan By Cruzan v. Harmon*. Pg. 419.

vegetative state, it asserted the unqualified interest of the state in “prolonging life.”

Rather than acknowledging how the reduction of human existence to the absence of cognizant life may place a burden on particular individuals and their families, the court argued that the only burden that existed was tied to the bodily trauma of removing medical care.

This is not to say, of course, that no “right to die” was affirmed by the court, or that the state’s interest was in biology alone. Indeed, the court worked hard to rehabilitate an extremely abstracted, liberal form of personhood. For the question remained: on what legal grounds may an individual legitimately choose to withdraw their medical treatment? The court refused to ground this choice in the right to privacy, which would have broadly left open to the individual the reasons or forms by which they could terminate their own care. Instead, the court ruled, that the expansion of the right of privacy discovered in *Griswold* could not be expanded to the decision to terminate treatment.³²² In their view, court decisions that recognize the right to refuse treatment in the right to privacy lacked a “reasoned analysis as to the scope of that right or its

³²² Here, it invoked the Supreme Court decision in *Bowers v. Hardwick*. How? The decision in *Roe v. Wade*, for example, legitimately followed the precedent from *Griswold v. Connecticut* because, in *Griswold*, the right to privacy was located in reproductive activities. The same could be said for *Roe*, but the Supreme Court argued in *Bowers v. Hardwick* that the right to privacy discovered in *Griswold* could not be extended to homosexual activities because they were not, by their nature, reproductive. Nor, argued the Missouri Supreme Court in *Cruzan*, was the issue about reproduction (or the remaking of life), but rather about the ending of life by medicine.

application to the refusal of life-sustaining treatment.”³²³ However, they did recognize that a right to refuse treatment could be sought in the common law right of informed consent so long as the *intent* of the patient was sufficiently clear about their end of life preferences. And it placed an extremely high bar on the way to determine intent.³²⁴ If those intentions are not clear -- for example, in living wills which cover the specific medical condition of the patient and treatments to be refused -- then any evidence is likely “unreliable for the purpose of determining intent, ... and thus insufficient to support the co-guardians’ claim to exercise substituted judgment on Nancy’s behalf.”³²⁵ Thus cognizant life is indeed asserted as the central condition by which the subject exists, insofar as they are not capable, after their injury, to choose death, unless they explicitly intended to do so before their injury. What about guardians and surrogates? Because, as the court defines it, “autonomy means self law,” the court found “no principled legal basis which permits the coguardians in this case to choose the death of their ward.”³²⁶ For all these reasons, the court ruled that the state’s interest in preserving life, in the case of the end of life patient, may be affirmed not only to respect the life of Ms. Cruzan, but also

³²³ *Cruzan By Cruzan v. Harmon*. Pg. 417. The court asserts “grave doubts as to the applicability of privacy rights to decisions to terminate the provision of food and water to an incompetent patient.” *Cruzan By Cruzan v. Harmon*. Pg. 418. The court also reviewed the three standards of judgment used in other states -- substituted judgment, best interests, and inhumane treatment -- and concluded that, in its view, the courts in those cases were “able to discount entirely the state’s interest in the preservation of life.” *Cruzan By Cruzan v. Harmon*. Pg. 416.

³²⁴ “A decision to refuse treatment, when that decision will bring about death, should be as informed as a decision to accept treatment.” *Cruzan By Cruzan v. Harmon*. Pg. 424.

³²⁵ *Cruzan By Cruzan v. Harmon*. Pg. 425.

³²⁶ *Cruzan By Cruzan v. Harmon*. Pg. 427.

to protect those whose “wishes are unknowable but who would, if able, choose to continue life-sustaining treatment.”³²⁷ In short, the state must “err on the side of life.”³²⁸

The United States Supreme Court, in a 5-4 decision, affirmed the Missouri Health Department’s right to refuse withdrawing Cruzan’s life support on the condition that the state of Missouri had a right to assert its interest in preserving life and, moreover, to implement a level of scrutiny in the determination of the decision to refuse medical treatment. “An incompetent person,” Justice Rehnquist wrote for the majority, “is not able to make an informed and voluntary choice to exercise a hypothetical right to refuse treatment or any other right.”³²⁹ Admitting, however, that “such a ‘right’ must be exercised, if at all, by some sort of surrogate,” it affirmed that a broad yet strict legal principle be applied to regulating such decisions. Constitutionally, the ruling locates the balance of individual and state interests in the 14th amendment’s due process clause. There, it finds that individuals have a “liberty interest,” as opposed to a right, to refuse medical treatment. While this standard should apply to both competent and incompetents, in the latter case “a State has more particular interests at stake.” “We think the State may ... assert an unqualified interest in the preservation of human life to be weighed against the constitutionally protected interests of the individual.” They go on to rule that this standard of proof ought, by default, to “err on the side of life.” “Missouri may permissibly place an increased risk of an erroneous decision on those seeking to

³²⁷ *Cruzan By Cruzan v. Harmon*. Pg. 419.

³²⁸ *Cruzan By Cruzan v. Harmon*. Pg. 427. This expression became an extremely popular phrase invoked by conservatives during the last months of Ms. Schiavo’s life in 2005.

³²⁹ *Cruzan vs. Director, M. Dept. of Health*, 497 US 251 (1990). Pg. 280.

terminate an incompetent individual's life-sustaining treatment."³³⁰ A decision to protect life when a patient intends to end medical care may be corrected; "an erroneous decision to withdraw life-sustaining treatment, .. is not susceptible of correction."³³¹ Thus, "Missouri has .. recognized that under certain circumstances a surrogate may act for the patient in electing to have hydration and nutrition withdrawn in such a way as to cause death, but it has established a procedural safeguard to assure that the action of the surrogate conforms as best it may to the wishes expressed by the patient while competent."³³² We conclude," wrote Rehnquist,

that a State may apply a clear and convincing evidence standard in proceedings where a guardian seeks to discontinue nutrition and hydration of a person diagnosed to be in a persistent vegetative state.³³³

Since *Cruzan*, the legal and ethical organization of the right to refuse medical treatment as a practice of freedom has turned with greater intensity on producing, protecting, and enforcing a patient's "intent" in order to make proxy decision-making possible.³³⁴ This is not only due to the Supreme Court's location of a right to refuse medical treatment within informed consent but, at the same time, the state's interest in "preserving life" at the end of life, which can only be, in most cases, countered by the

³³⁰ *Cruzan vs. Director, M. Dept. of Health*. Pg. 282.

³³¹ *Cruzan vs. Director, M. Dept. of Health*. Pg. 283.

³³² *Cruzan vs. Director, M. Dept. of Health*. Pg. 280.

³³³ *Cruzan vs. Director, M. Dept. of Health*. Pg. 282.

³³⁴ Emanuel, Ezekiel J., Linda L. Emanuel. 1992. "Proxy Decision Making for Incompetent Patients: An Ethical and Empirical Analysis." *JAMA* 267 (15): 2067-2071.

“clear and convincing” evidence of intent to refuse medical care. The concept of autonomy that buttresses “intent” has been the impetus for, and solution to, a broad, governmental reorganization of the field of actions and relations that make possible the refusal of medical care. I mean two things by this. First, the ruling installed a patient's intent as a mechanism that is used to make visible, and regulate, all the institutional relations formed between end of life patients and those who facilitate the end of life. This begets what Foucault called individualizing technologies to be drawn up to mediate all kinds of actions and regulations in end of life care. Second, intent was also the means by which authorized bodies -- and not only the State but any institutional body -- could intervene into the processes that bring about end of life care. Indeed, “intent” is governmental because it allows a mechanism by which a body may claim an interest in regulating the relations and processes that bring about the end of life as an intervention that ensures freedom. Both of these elements are governmental, moreover, because they not only bind the individual to the purview of regulatory bodies through a practice of freedom, but because they require subjectification practices at every turn. In other words, they require others to constitute themselves in relation to an “intentional” subject -- as a proxy, as a family member who claims to know what those intentions are, as a caretaker who must act based on those intentions, and so on. By establishing an intentional subject as the precondition for end of life care, the *Cruzan* ruling established the necessity of producing the intent of the subject, and therefore a particular representation of the subject, as the mediating device for bringing about a legal end of life.

Many of the questions broad questions that emerged 1970s and 1980s about the complex nature of the end of life were renewed after *Cruzan*. But they became visible under the broad ambit of the state's right to assert an "interest in life." The only way to legitimate actions that would "make die" was by sanctioning them with the "intent" of the patient. And for nearly all of these questions, the solution has been to expand the number of legal documents, ethical procedures, and medical practices that rely on a "clear and convincing standard" of proving the "intent" of the patient. In 1990, for example, the United States Congress passed the Patient Self-Determination Act, which required for all hospitals nursing facilities, and hospices not only to provide written materials on living wills, advanced directives and durable powers of attorney, but to establish procedures that notify patients of their health choices, that document their advanced directives in medical records and that set up a means of communicating these directives to the care staff.³³⁵ The PSDA was even more forceful, for example, in end of life care centers and palliative homes, where it required the staff to inform each resident of their right to have an advanced directive and provide the means of making one. What the PSDA represents, however, is exactly the kind of governmental technology that could be installed after *Cruzan*. It aims to bring together, under a unified set of norms and measures, the social matrix of the end of life by centralizing the "intent" of individuals vis-a-vis their own end of life.

The individualizing technologies I just discussed have also become normative instruments by which to assert one's autonomy and self-determination at the end of life,

³³⁵ The Patient Self Determination Act (PSDA) 42 U.S.C. §§ 1395.

no matter what the condition. To be sure, these technologies -- advanced directives, living wills, informed consent laws, extensions of the durable power of attorney to end of life decisions -- existed prior to *Cruzan*. But they recently have been proposed as a way of “governing future medical contingencies” *per se*. In the last 15 years the use of advanced directives has been defended because they are the only way, it is argued, to secure for individuals an “extended,” “prospective autonomy,” that allows them to “shape the contours of medical intervention ... [and thereby] secure a modicum of dignity in the dying process.”³³⁶ At the heart of this argument is the claim that a vegetative subject does not represent a loss of autonomy, but rather imposes “bounds ... on patient autonomy to reject life-preserving medical intervention.”³³⁷ Thus prospective autonomy is not identical with “contemporaneous autonomy, [but it] shares a common foundation in self-determination.”³³⁸ Drafting advanced directives and livings wills has, since the early 1990s, also become a more complex process. Individuals may have different notions of what it means to safeguard their dignity and to be too much of a burden, and documents which protect intent are supposed to accommodate that plurality.

To conclude this section, I want to return to the subjectlessness of cognizant life. What I have tried to show in this section is that the legal and ethical production of the vegetative subject required translating a subject’s subjectlessness through a particular set of categories -- intent, end of life wishes, preferences, and others -- that allowed for the

³³⁶ Cantor, Norman L. 1993. *Advance Directives and the Pursuit of Death with Dignity*. Bloomington, IN: Indiana University Press. Pg. ix.

³³⁷ *Ibid.* Pg. 1.

³³⁸ *Ibid.* Pg. 1.

law and ethics to respond to the claim that this body should have the right to refuse medical care. This subjectless subjectivity, in relation to the medical context of a life beyond health, also allowed for an entire field of “end of life” to emerge. It emerged, I argued, through a governmental apparatus, which is to say it emerged through a form of power that aims to secure freedom and the practices of freedom for individuals who, at the same time, constitute a population that is subject to general, unifying technologies of the State. This governmental apparatus has been in the making since the 1970s and *Quinlan*, at the least. And it depends on a way of making intelligible not only subjectlessness as a subject, but the relations of others to this subject as well. Thus, the apparatus can regulate those relations as procedures, norms, rules and regulations of legitimately bringing about the death of an individual. Although the practices that bring about the end of life are more straightforward when an individual remains competent, the key argument here is that, in both cases, the fundamental legal and ethical bases which justify choosing to refuse medical treatment *are exactly the same*.

The inclusion of the subjectless subject within the governmental apparatus of the end of life has given this apparatus the grounds for its global, universal aspirations. Indeed, we should go back one step and say that a governmental apparatus *per se* was possible as a form of power at the end of life *because* it took the subjectlessness of the vegetative subject and cognizant life as the basic conditioning form of life on which a right to refuse medical care could be established. In the 1970s, the ethical and legal confrontation with the end of life subject was, by comparison with today, so varied and heterogeneous that it might have been able to account for the complex, profound nature

of dying in contemporary society. It might have been able, for example, to make sense of the complex nature of the technological capacities to sustain life; the complex ends that individuals seek when they are dying; and the difficulty of the relations of dependence and also of obligation that accompany a heavily mediated death. Instead, especially since *Cruzan*, what has unfolded is the unification and leveling of the field of dying and death through an apparatus that seeks only to increase the number of relations it can govern in the name of freedom. What might have been an opportunity to respect the heterogeneity of individual experience in the face of death has resulted in the opposite: the governmental problem of securing a practice of freedom at the end of life, which requires the production of an abstracted subject of autonomy and self-determination, is the precondition for the inquiry into the nature of the dying and death experience.

The inclusion of this subject has legitimated the broad application of a narrow view of freedom and operated as the principal figure on which to organize a practical legal rationality in relation to death. This rationality has created a field of conduct and mechanisms of enforcement by centralizing an abstract subject who is in fact subjectless through the notion of “intent.” And it has also provided a framework through which we recognize who requires our moral and ethical attention, particularly when they occupy a relation to death, and what we ought to do about it. But the “clear and convincing” standard of intent has also become the foundational bedrock of our bioethics in relation to larger social and economic problems. This is what makes the life of the vegetative subject a dynamic force in the social, political, and economic encounter with death in contemporary society: the discursive, epistemological inquiry into the brain, which

changes how we produce and recognize the subject “beyond health but still alive,” structures the way we face our own death and the deaths of others as practical, ethical questions.

4. Governing the end of life: the social and economic extension of the apparatus

Two arms of the dying and death apparatus have so far been discussed through the figure of the vegetative subject. The first pertained to the production of a biopolitical subject: this is the medical and scientific production of a “form of life” that is simultaneously beyond health (but remains alive) and occupies a void of personhood. The undecidability of human consciousness as a cognitive, physiological process ensures that we will continue to encounter a living being whose relation to both human status and brain-death is underdetermined. For this reason, cognizant life entails a biopolitical struggle: how to give a subjective intelligibility to the life of the vegetative patient in relation to death when this life is mediated by medical technologies, scientific concepts, and nursing practices that keep it alive. Here the legal and ethical arm of the apparatus intervenes: it produces a ethical-legal reading of the “end of life” as a practice of freedom, and ensures that legal and ethical technologies of subjectivity are put in place to secure the subject at the end of life. But the production of this “end of life” subject requires a concomitant production of a field of choices and decisions on which the relation to death is practical. Thus, the relation to death is seen as refusing medical treatment, with an ethic that not only respects this choice, but provides the regulations and procedures that ensure its legitimate, proper execution. With this part of the

argument set out, I want now to turn to how the apparatus structures, also through this biopoliticized subject, a governmental rationality of knowledge and intervention with broader strategic functions, among other ways, to reconcile ethics with economics; to intervene in the social relations that structure proxy-decision making and end of life care; to render the dependence of the vegetative subject on others, and their duties in return, something which can be given limits. What I want to show here with a few examples is how the vegetative subject, once a machinery of subjectivity gives it a normative legal and ethical form, is deployed as a means for an apparatus to extend itself across the social and economic matrix at that end of life field through specific problems and relations of power.

To understand the apparatus that regulates and manages the relations individuals and institutions have to the vegetative subject, it is necessary to temporarily broaden our view. The vegetative subject exists within the larger population of individuals who are “approaching death,” typically referred to as the elderly. Since the passage of Medicare in 1965 an enormous amount of literature has appeared on the costs, burdens, care, ethic, management, and ends of dying.³³⁹ This population, particularly in the last 20 years, has been scrutinized as a social, economic, and political system. Medical care for the dying is disproportionately expensive. It often requires specialized medical attention that uses high-cost diagnostic technologies. And while political interest in the care of the dying is, today, universally accepted, it remains a permanent, touchy fixture of federal

³³⁹ For a wonderful introduction to the political and economic history of Medicare and Medicaid, see: Oberlander, Jonathan. 2003. *The Political Life of Medicare*. Chicago, IL: University of Chicago Press.

expenditures. However, the end of life care of dying is also a space of ethical and moral commitments. Since the 1990s, at least, there has been an interest in “approaching death constructively,” as an influential and authoritative report put it in 1997.³⁴⁰ “The timing,” the authors then wrote, seems ripe for “a vigorous societal commitment to improve care at the end of life.”³⁴¹ This commitment has entailed taking as a whole the economic, social, political, and moral existence of the end of life and governing it through measures that meet a variety of needs.

The “dying and death apparatus” is a constitutive element of the “constructive approach” to death. As I alluded to earlier in this manuscript, the “dying and death consensus” is not simply aimed at the vegetative patient, but more broadly at the problem of health, economy, insurance, finance, and caring at the “end of life” writ large. I am not claiming that the vegetative subject is either representative or emblematic of the dying population in the United States. But the apparatus I am tracking shares many general elements with this larger economic, ethical, and political matrix which makes sense of, organizes, and intervenes in the social-economic-moral order of death and dying. My interest, in particular, is in the *cognizant life* of the vegetative subject, and how this biopolitical subject is rendered visible as a vegetative subject through which an apparatus can take hold and intervene in the social matrix of dying and death. For this apparatus operates not only as machinery of subjectivity for a subjectless form of life. It also

³⁴⁰ Field, M. J., and C. K. Cassel, ed. 1997. *Approaching Death: Improving Care at the End of Life*. Institute of Health, National Academy Press.

³⁴¹ *Ibid.* Pg. 13.

deploys that subject in order to address a field of problems, questions, and relations through governmental techniques. Thus this apparatus is not only a means of recognizing a subject, but of deploying the subject in order to intervene in a general matrix of social and economic processes that mediate the lives of a population at the “end of life.”

Both the short-term and long-term care of vegetative subjects is a matter of costs, financing, and insurance. Generally speaking, end of life care tends to be disproportionately expensive relative to other medical care.³⁴² Most reports indicate, for example, that around a quarter of Medicare expenditures per year are used to pay for the costs of Medicare beneficiaries who died that year (roughly 5% of Medicare beneficiaries). The economic reading of vegetative subjects is rendered more acute, however, because of the properties of cognizant life -- the possibilities for brain rehabilitation, the expensive routines and procedures necessary to confirm a vegetative diagnosis, the longitudinal nature of determining a prognosis, and the high costs of specialized, palliative nursing care over the period when the vegetative subject is cared for. Most diagnostic guidelines, for example, demand intense examinations of this

³⁴² Scitovsky, A. A. 1994. “‘The High Cost of Dying’ Revisited.” *The Milbank Quarterly* 72 (4): 561-591. Brooks, C. H., and K. Smyth-Staruch. 1984. “Hospice Home Care Cost Savings to Third-Party Insurers.” *Medical Care* 22 (8): 691-703. Gaumer, G. L., and J. Stavins. 1992. “Medicare Use in the Last Ninety Days of Life.” *Health Services Research* 26 (6): 725-742. Ginzberg, E. 1980. “The High Cost of Dying.” *Inquiry* 17: 293-295. Lubitz, J. D., and G. F. Riley. 1993. “Trends in Medicare Payments in the Last 2 Years of Life.” *New England Journal of Medicine* 328: 1092-1096. McCall, N. 1984. “Utilization and Costs of Medicare Services by Beneficiaries in their Last Year of Life.” *Medical Care* 22 (4): 329-342. Riley, G., J. Lubitz, R. Prihoda, and E. Rabey. 1987. “The Use and Costs of Medicare Services by Cause of Death.” *Inquiry* 24 (3): 233-243. Scitovsky, A. A. 1988. “Medical Care in the Last Twelve Months of Life: The Relation Between Age, Functional Status, and Medical Care Expenditures.” *Milbank Quarterly* 66 (4): 640-660.

subject for no less than one month and, typically, no more than one year by a coordinated team of neurologists, nurses, and physicians.³⁴³ What renders the vegetative subject more problematic still is that, post-diagnosis, the costs of care tend not to improve the physical condition of the patient; indeed, despite even the most advanced bodily care, the body invariably decays: infections turn gangrenous; extremities are amputated if they are not regularly exercised, and internal organs often fail. Because treatments of the body of cognizant life tends to be a losing, but possibly prolonged, battle, treatment is categorized as providing only “marginal benefits,” even if they are also life-sustaining ones.

One way in which the apparatus has extended itself is through a sociological inquiry into the institutional trajectory of end of life patients. Where people die (in homes, ICUs, or palliative care centers), the medical events that precede death, and the clinical measures taken to treat them, have, for example, become a major problem of

³⁴³ Rehabilitation attempts through neural stimulation were attempted on Ms. Schiavo for nearly two years before attempts were stopped. Even after this, however, other forms of rehabilitation persisted-- for example, she was given speech therapy until 1994.

reform.³⁴⁴ These studies have centered not only on shifting the location and processes of dying in order to possibly save costs, but also in determining, as one author put it, “the growing needs for end of life care” particular to those in the last year of life who need constant medical attention.³⁴⁵ Those needs have been found to be disproportionately distributed by race, class and gender; this raises a question not only of inequity, but also clarifies the social spaces for reform. However, my sense of the literature is that, in order to make needs intelligible and organize social reforms at the end of life, a particular narrative has to be given about what that end of life looks like.

The vegetative subject in this literature is constitutive of the normative patient whose end of life care is a question of sociological inquiry and policy reform. For example, some reports focus on the relationship between the uses of the technology in the last months of life and the relative health of the patient over that period of time. The question here is how much benefit is reaped from expensive interventions, where

³⁴⁴ Gruneir, Andrea, Vincent Mor, Sherry Weitzen, Rachael Truchill, Joan M. Teno, and Jason Roy. 2007. “Where People Die: A Multilevel Approach to understanding Influences on Site of Death in America.” *Medical Care Research and Review* 64 (4): 351-378. Weitzen, Sherry, Joan M. Teno, Mary Fennell, and Vincent Mor. 2003. “Factors Associated with Site of Death: A National Study of Where People Die.” *Medical Care* 41 (2): 323-335. Ahmad, S., M. S. O’Mahony. 2005. “Where older people die: a retrospective population-based study.” *Q J Med* 98 (12): 865-870. Field, D., and N. James. 1993. “Where and how people die.” Pp. 6-29 in *The Future for Palliative Care: Issues in Policy and Practice*, edited by David Clark. Philadelphia: Open University Press. Lerner, Monroe. 1982. “When, Why, and Where People Die.” Pp. 5-29 in *The Dying Patient*, edited by Brim, Orville G., Howard E. Freeman, Sol Levine, and Norman A. Scotch. New York, NY: Russell Sage Foundation. Thorpe, G. 1993. “Enabling more dying people to remain at home.” *BMJ* 307: 915-918. Bowling, A. 1983. “The hospitalisation of death: should more people die at home?” *J Med Ethics* 9: 158-151.

³⁴⁵ Gomes, Barbara, and Irene J. Higginson. 2008. “Where people die (1974-2030): past trends, future projections, and implications for care.” *Palliative Medicine* 22 (1): 33-41.

“benefits” are not only measured in extra time that may have been gained by the patient, but also the quality of life produced thereby. In these debates, the vegetative subject is often figured as an extreme case. It appears as a measure against which the end of life care of patients is given a sociological reality. For example, one typical question is how institutional resources may best be distributed among different patients at the end of life, and whether regimens can be applied based on where a patient is in the dying process. The answers to these questions give shape to what “basic needs” mean at the end of life, what ought to be provided, and how to facilitate the provision of those needs. The vegetative subject is a test case in the sense that it is a subject whose needs, and the costs to satisfy those needs, are allowed to enter into a calculation with benefits. Indeed, what kinds of benefits can a permanently unconscious patient gain from sustained, high cost care? Other measures for reform have included developing specialized nursing facilities such as hospice and palliative care centers (where, for example, Ms. Schiavo spent the majority of her time after her accident) in order to both tailor to specific needs and, at the same time, not waste the resources of ICUs and hospitals. It has become important to determine where people die in order to determine how control can be established over costs by creating specialized care centers.³⁴⁶ Not only have specialized hospices been set up to care for end of life patients, but communication and transportation networks have been funded by the government to facilitate their use. The effort to specialize end of life

³⁴⁶ Kiddler, D. 1992. “The Effects of Hospice Coverage on Medicare Expenditures.” *Health Services Research* 27 (2): 195-217. Mor, V, and D. Kiddler 1985. “Cost Savings in Hospice: Final Results of the National Hospice Study.” *Health Services Research* 20 (4): 407-422. U.S. Department of Health and Human Services. 1985. “Nursing Home Utilization by Current Residents.”

care has also gone hand in hand with educational reforms through the Medicare system -- how to approach the end of life, taking measures to die in your home as opposed to ICUs, and so on.

In order therefore to give a social intelligibility to the “end of life” field, the end of life literature has constructed a typical end of life care subject within which various kinds of interventions are possible: specialized institutions, cost-benefit analysis of needs and provisions, where finances are drawn from, for how long, and so on. In my view, the vegetative subject has functioned as a limit to the narrative by which to make calculable the sociological reality of care: where are the limits to benefits, when should experimental techniques be used and when should they not, how may we recognize the signs of a quick decline so as not to use invasive resuscitation measures, and when do we turn to palliative care? Thus the field of “end of life” has become governable not only by making clear “who” the end of life patient is, what their needs are, what is typically provided, and the relationship of that care to technology and costs. This field is governable because the knowledge about it allows for interventions to be implemented: how can we make measures that detect the usefulness of medical care; how can we re-distribute medical expertise to those who need it most, and so on.

As I noted, a major function of the apparatus is to make possible an economic reading of the end of life, and to develop the means by which to control and lower its costs. To be sure, there are many ways in which the end of life as a social and economic system is rendered visible: the solvency of medicare, the liabilities placed on the public, taxation, etc. What cuts across all of these readings, however, is the necessity of reducing

costs. What I want to chart now is how the apparatus of end of life has developed a economic rationality of cost-reduction that operates through the self-determination of the vegetative subject. Again, these measures are not specific to vegetative patients only. But they correspond to the normative production of the end of life subject, within which the vegetative subject is figured. The economic reading of the end of life is tied to the legal and ethical intelligibility of the vegetative subject as an autonomous being, and specifically towards capitalizing on the use of advanced directives. In fact, what I'd like to gesture towards more generally is that attempt to locate an economic rationality in the end of life by developing cost-saving measures *within* the ethical obligation to respect the end of life patient as a self-determining being; i.e., within the ethical imperative to respect autonomy at the end of life.

After the passage of the PSDA in 1991, the use of living wills and advanced directives were hailed as a major cost-reducing measure. Why? Physicians, it was argued, had a imperative to provide medical care for any patient in any condition; thus when a patient who was vegetative left no living will or advanced directive, physicians presumed that it was their duty to keep them alive. But because the majority of Americans, in poll after poll, say they'd prefer not to be kept alive on life support if there is no hope of recovering health, a clear indication to doctors not to keep them alive might substantially

reduce the amount of money spent by ICUs to rescue and rehabilitate them.³⁴⁷ If we can increase the forms by which a patient may express their autonomy, the logic goes, so then physicians may respect the will of the individual and, at the same time, save resources.

Whether living wills and similar documents save money remains an open question; most studies indicate that even in best-case scenarios advanced directives garner no savings.³⁴⁸ However, there remains a basic assumption that the way in which individuals are given choice and control over their end of life can function, simultaneously, as a space in which the costs of providing health-care at the end of life may also be controlled. As one influential author put it in 1993, “good ethics entails good

³⁴⁷ Chambers, Christopher V., James J. Diamond, Robert L. Perkel, and Lori A. Lasch. 1994. “Relationship of Advanced Care Directives to Hospital Charges in a Medicare Population.” *Archives of Internal Medicine* 154 (5): 541-547. Maksoud, Alfred, Dennis W. Jahnigen, and Christine Skibinski. 1993. “Do Not Resuscitate Orders and the Cost of Death.” *Archives of Internal Medicine* 153(1): 1249-1253. Schneiderman, Lawrence. J., Richard Kronick, Robert M. Kaplan, John P. Anderson, and Robert D. Langer. 1992. “Effects of Offering Advanced Directives on Medical Treatments and Costs.” *Annals of Internal Medicine* 117 (7): 599-606. Teno, J., J. Lynn, R. and Phillips. 1993. “Do Advance Directives Save Resources?” *Clinical Research* 41 (2): 551-561. Teno J. M., J. Lynn, A. F. Connors, N. Wenger, R. S. Phillips, C. Alzola, D. P. Murphy, N. Desbiens, and W. A. Knaus. 1997. “The illusion of end-of-life resource savings with advance directives.” *J Am Geriatric Soc* 45 (4): 513-518.

³⁴⁸ Emanuel, Ezekiel J., and Linda L. Emanuel. 1994. “The Economics of Dying. The Illusion of Cost Savings at the End of Life.” *New England Journal of Medicine* 330 (8): 540-544. Fagerlin and Schneider sum up this argument from an economical perspective: “The cost-benefit analysis here is simple: if living wills lack detectable benefits, they cannot justify any cost, must less the considerable costs they now exact,” by which is meant not only the *economic cost* of providing and regulating care with living wills, but the ethical and moral costs of the false promises they are intended to supply at the end of life. Fagerlin, Angela, and Carl E. Schneider. 2004. “Enough: The Failure of the Living Will.” *The Hastings Center Report* 34 (2): 30-42.

health economics.”³⁴⁹ Indeed, “good ethics,” which implies a respect for the patient’s autonomy, is seen to provide a means of needlessly supplying valuable resources where there is no demand. “Autonomy” corresponds, here, to the twin idea that individuals at the end of life should be given a practice of freedom and that patients consume health as rational actors. Autonomy provides a space in which both an ethical and economic reason can be applied to the end of life. If patients are provided with options, and physicians with the proper incentives respect free decision-making about health, then economic reason can be applied to the allocation of health resources in constrained markets. As one health economist recently wrote, summing up this basic view: “cost-effectiveness principles, consistently applied, can generate guidelines for decisions that do not involve the doctor in invidious breach of the trusting relationship with patients.”³⁵⁰

The strategic aims of the apparatus I have been describing -- reform of the social matrix through which end of life care is delivered, the application of liberal economic principles to the ethical quandaries of end of life decisions -- is a constructed field of health in which the cognizant life provides an economic and sociological intelligibility. These aims have been possible by carving out for an apparatus what Foucault called a “jurisdiction;” i.e., a discursive and material space in which a political or economic rationality -- a form of reason -- can be applied.³⁵¹ Health policy and health economists,

³⁴⁹ d’Oronzio, J.C. 1993. “Good ethics, good health economics.” *New York Times*, June 8, A25.

³⁵⁰ Culyer, Anthony J. 2001. “Economics and ethics in health care.” *Journal of Medical Ethics* 27 (4): 217-222.

³⁵¹ Foucault, Michel. 2008. *The Birth of Biopolitics: Lectures at the College de France 1978-1979*. Hampshire, UK: Palgrave Macmillan.

for example, are breaking down the relations of end of life care as a system of inefficiencies, marginal benefits, cost-effective analyses, and the provision of scarce resources in a strapped, demand-side heavy market. They are investigating each form and kind of relation that defines the trajectory of end of life care and asking whether the “services” each provide to the patient can be more efficiently delivered. But it is also critical to see here how a discourse of ethics creates a space for economic reason to be applied at the end of life. What this apparatus aims to do is to parlay autonomy and self-determination as a means of reducing the costs of care. Both aspects -- to analyze the end of life as a economic system, and to make the central actor there an autonomous, rational, and self-determining one -- transform various social relations and practices of health into a “jurisdictional” space where the reason of the dying and death apparatus can be applied.

One major form through which this governmental apparatus works is through health and ethics institutes, both public and private. They function to evaluate and measure the effectiveness of public health policies at the end of life. The Hastings Institute is perhaps the most famous in this general area of health, but a number of others also specialize in end of life care.³⁵² The functions of these institutes tend to differ, but a general orbit of questions they seek to pose and answer are typically the same: when do people make the decisions they make about their own end of life health care? what factors drive their decisions? where and when do people receive this care, do they get

³⁵² For example, the Duke Institute on Care at the End of Life (<http://www.iceol.duke.edu>) The Metta Institute (<http://www.mettainstitute.org>), the Myers-JDC-Brookdale Insitute (<http://brookdale.jdc.org.il>), The Hartford Institute for Geriatric Nursing (<http://hartfordign.org>), or the Committee for Care at the End of Life (through the Institute of Health).

what they want and are the outcomes of a quality that justifies the investment? can we turn to evidence-based medicine to structure who gets what, when, and how in a way that respects individuals' interest in life and death? what education programs work best at informing people about their end of life options? what would capitation and rationing limits on health care look like, and how can they be implemented? is there a justification for health rationing and capitation based on these analyses of who gets what and when? what principles could animate this simultaneously ethical-economic rationality? If one of the strategic aims of this apparatus is to reduce end of life costs and re-organize the socio-economic field of dying as a governable problem, health institutes have functioned as advocacy and public policy groups that garner the attention of the State by applying economic thought to discover where inefficiencies and waste exist in a social system of care and propose cost effective measures which would reduce them. The governmental dream here is that good economic policy, while it will not solve ethical questions, may be helpful in detecting them. Culyer, who I cited earlier, summarizes this view of the ethical-economic relationship in this way: economists are "rather good at identifying the necessity for making value judgments and at spelling out the nature of the value judgments that are needed" -- it is up to ethics to determine what can or ought to be done as well as what can not be done.³⁵³

Though an economic rationality tends to dominate the government of end of life, the extension of a governmental apparatus to regulate the social field of dying and death is not exhausted by it. "Ethical" problems exceed the economic question and spill into

³⁵³ "Economics and ethics in health care." Pg. 217.

the government of social relationships at the end of life. This regulation mostly turns on which social relationships are most favorable to achieving desired ends at the end of life (which includes respect and autonomy for the patient who must decide about their own death).

The way the end of life apparatus has developed a rationale to regulate proxy decisions is to have parsed, selected, and authorized certain relations to the vegetative subject, at the end of life, to claim a stake in the decisions over the life of that patient. Different proposals have circulated in the literature. Only a few need be discussed to show their governmental character. One aspect of this character is to render visible to a governmental apparatus which social relations exist at the end of life in relation to a patient. Who are the actors who play a social, economic, political or technical role in the end of life care of the subjectless subject, and can we circumscribe this relation within a narrative of means, ends and rights? A second aspect of the governmental apparatus is to make legitimate, or authorize, the actions of those actors by providing an ethical or philosophical argument. Where, for example, should the legitimacy of different social actors to decide for vegetative subjects come from?³⁵⁴ What are the limits to familial rights? Where might be the rights of doctors or nurses?

One solution is to transfer the rights of individuals who are incompetent to the family because they are best positioned to make “good faith” decisions based on a patient’s best interests: “the family deserves recognition as an important social unit that

³⁵⁴ The following are taken from Emanuel, Ezekiel J., and Linda L. Emanuel. 1992. “Proxy Decision Making for Incompetent Patients: An Ethical and Empirical Analysis.” *JAMA* 267 (15): 2067-2071.

ought to be treated, within limits, as a responsible decision maker in matters that ultimately affect its members.”³⁵⁵ Because of the special “interpersonal union” of family members, who “grieve for the patient’s suffering and death,” the transfer of decisions to the family is legitimate. As Emanuel has argued, this shifts the justification of proxy decision making: “the authority of the proxy is no longer derived from the patient’s right to refuse care ... rather, the family is given power to exercise *its right over* the patient.”³⁵⁶ As he makes clear, however, “laws and policies offer conflicting messages about [the public’s] willingness to support family rights.”³⁵⁷ Among the many arguments against this solution, the most dominant is that there is no guarantee a family will make decisions in the best interests of a patient. Furthermore, laws and public policies prefer individual proxies as opposed to group proxies where conflicts of interest may be irresolvable. This begets another solution: the state’s involvement in “restricting and supervising” the decisions by families as proxies. Restrictions imposed by the State may entail the involvement of a court. But in both cases the move aims to regulate and proceduralize individuals’ capacity to make decisions for others.

Arras has argued that the emphasis on procedures as a way of managing end of life decisions transforms ethically ambiguous questions away from their substantive nature (e.g., “who shall live?”) into technical ones (“who shall sit on the committee?”).³⁵⁸

³⁵⁵ *Matter of Jobes*, 529 A. 2d 434 - NJ: Supreme Court 1987

³⁵⁶ “Proxy Decision Making for Incompetent Patients.” Pg. 2069.

³⁵⁷ *Ibid.* Pg. 2070.

³⁵⁸ Arras, John D. 1984. “Toward an ethic of ambiguity.” *Hastings Center Report* 14 (2): 25-33.

In his view, the danger of state oversight into the social relations of the end of life is that “substantive questions” about life and death may get lost in the bureaucratic aims of spreading responsibility and liability as a measure against abuse, risk, and ethical ambiguity. Another solution proposed would seek to discover legitimate standards and procedures by employing a democratic process whereby local communities will vote and decide together on what those end of life principles ought to be in a “just” society.³⁵⁹ This rationale corresponds to the effort since the 1970s to apply liberal political theory to difficult bioethical and social policy questions: to live in a decent society means to develop an institutional theory of justice for determining the moral value of forms of life that we may choose to let die. This approach, however, seems rather marginal. The emphasis remains on locating the justice of end of life decisions, especially those by proxy, with respect to processes that ascribe the responsibility of that decision to individuals.³⁶⁰ There is very little room in this discourse for arguments, such as those of Daniel Callahan, that certain normative limits should be placed, for example by age and condition, on how much should be done to sustain health, and when efforts to support life

³⁵⁹ Emanuel, Ezekiel J. 1991. *The Ends of Human Life: Medical Ethics in a Liberal Policy*. Cambridge, MA: Harvard University Press.

³⁶⁰ Even in cases where proxies are seen to fail end of life patients, the failure is a failure of protecting autonomy. See, for example: Pope, Thaddeus Mason. 1999. “The Maladaptation of Miranda to Advance Directives: A Critique of the Implementation of the Patient Self-Determination Act.” *Health Matrix* 9: 139-180.

should be stopped.³⁶¹ The basic fear remains that any supervision, oversight, or regulations may trample the individual assertions of freedom at the end of life.

What all of these proposals have in common that they structure a governmental response to the paradox I stated near the beginning of this chapter: how can we act for subjectless patients when the aim of our action is to act as they would act for themselves? In other words, how can we reproduce the self-determining subject through a social process? Moreover, these proposals attempt to rationalize our capacity to see ourselves as particular kinds of ethical subjects in relation to the dependence of the subjectless subject. For example, as I suggested above, a physician's ethic to "first do no harm" renders problematic the actions that lead to the final death of a patient. For many, however, the calculus is rendered moot by a different reading of the situation: one does more good, medically, if one stops the undignified, and perhaps painful, situation of permanent unconsciousness. The uneven distribution of these readings among physicians is a governmental problem. For how can the end of life field be unified if the reason for stopping or continuing medical care is not brought under the purview of some global regulation? Certain limits must be placed on the dependencies that call on physicians to continue or discontinue acting. Similar claims could be made about other relations. Families, for example, exist in relation to a number of "burdens" (emotional, financial, etc.) which allow a certain limit to dependency and responsibility to become intelligible.

³⁶¹ Callahan is a widely respected bioethicist and co-founder of the Hastings Institute. Callahan, Daniel. 1987. *Settings Limits: Medical Goals in an Aging Society*. New York, NY: Simon and Schuster.

Consider “medical futility.” Medical futility brings the end of life patient and physician in a relation of finitude. Do not resuscitate orders, which represent one way in which physicians may terminate their relation of dependence with patients, can already be made without the consent of a patient: when CPR fails to bring a patient back to life, physicians have the right to stop measures to revive the patient. The problem of futile care is particularly acute, however, in vegetative patients.³⁶² For the problem is not of stopping resuscitation, but of stopping medical procedures that already sustain. The question raised is therefore not the immediate futility of CPR, but the futility of treatment in relation to a reduced, stable condition of human life, the endless medical possibilities for treatment or, more simply, the uselessness of further medical actions to return a patient to full health. Callahan has argued that the concept of futility tries to control a more general medical problem at the end of life: the infinitude of medical care vis-a-vis patients who are merely alive, yet unconscious, by virtue of medical care. “We lack,” he argues, “an accepted understanding of the proper ends of medicine, and thus a way of specifying medical ‘necessity’ and futility.”³⁶³

My view is that the function of futility here is to introduce a medically finite reading of life so that the physician may occupy an ethical relationship with the vegetative subject, over whom the physician may legitimately choose to exercise an

³⁶² For an important legal case that set the broad juridical outlines of futile care, see: *Wanglie v. Wanglie*, 356 NW 2d 850 - Minn: Court of Appeals 1984. And see: *Wanglie v. State*, 398 NW 2d 54 - Minn: Court of Appeals 1986.

³⁶³ Callahan, Daniel. 1991. “Medical Futility, Medical Necessity: The-problem-without-a-name.” *Hastings Center Report* 21 (4): 30-35.

expertise not to “heal.” In order to make this possible, a biological meaning has been given to futility: “physiologic futility.” This is typically seen as the most objective grounds for establishing futility. If a treatment offers no chance of “achieving its physiological objective and so offers no physiological benefit to the patient, the professional has no obligation to provide it.”³⁶⁴ The physiological reading of futility relies on yet another distinction: quantitative versus qualitative. Quantitatively, futility “refers to an expectation of success that is either predictably or empirically so unlikely that its exact probability is often incalculable.”³⁶⁵ Qualitatively, futility refers to any “treatment that merely preserves permanent unconsciousness or that fails to end total dependence on intensive medical care.”³⁶⁶ Both variations of the term attempt to establish an objective threshold to an ethical relationship of uncertainty. They allow the physician to call upon this objective threshold in order to legitimate a decision to stop medical care.

We need to read medical futility not simply as an attempt to establish medical standards for the limits or bases of medical care, but as a measure that regulates where responsibility and authority may legitimately fall at the end of life. As Callahan has

³⁶⁴ Hastings Center Task Force. 1987. *Guidelines on the termination of life-sustaining treatment and the care of the dying: a report of the Hastings Center*. New York, NY: Briarcliff Manor. See also: Bailey, Susan. 2004. “The Concept of Futility in Health Care Decision Making.” *Nursing Ethics* 11 (1): 77-83.

³⁶⁵ Schneiderman, Lawrence. J., Nancy S. Jecker, Albert R. Jonsen. 1990. “Medical Futility: Its Meaning and Ethical Implications.” *Annals of Internal Medicine* 112 (12): 949-954.

³⁶⁶ Callahan, Daniel. 1991. “Medical Futility, Medical Necessity: The-problem-without-a-name.” *Hastings Center Report* 21 (4): 30-35.

argued, debate over medical ends has grown so broad that the “term in practice has come to mean whatever medicine can in fact do to meet whatever different people fancy as necessary; the concept is thus elastic and technology-driven.”³⁶⁷ Even if physiologic futility were to be ratified as the threshold that gives physicians the right to stop medical care, its use would likely be unevenly applied. Even if medical groups were to begin to define medical ends at the end of life, some physicians would refuse to accept them. Indeed, in response to the term futility there has emerged another: “conscience” decisions, whereby physicians claim that they cannot, in good conscience, follow legal orders to terminate life support. In either case, we cannot seem to think ourselves out of the belief that the decision to stop medical care will be non-uniform in its application. This, rather than abuse, is what motivates rules and regulations to govern the end of life.

Consider, for example, the characterization Callahan gives to the general problem of defining medical ends. He argues that concepts like futility or conscience represent a “problem without a name:” how can we make moral judgments about the care of individuals when those judgments require reconciling the factual and the normative? The difficulty of these moral judgments, he argues, is that we insist they be made by individuals at the same time we regard them as societal decisions. Asking if it is possible to “set reasonable boundaries to ... health care,” in his view, means asking two questions at the same time. First, it means asking how limits are “useful for the purposes of

³⁶⁷ *Ibid.* Pg. 30.

individual patient welfare and for societal economic purposes?”³⁶⁸ Second, it means figuring out how decisions about futile medical care derive their legitimacy from “confrontation with a wide range of moral, economic, and political issues.”³⁶⁹ “Most but not all proposals,” he writes, “now embody a combined medical and economic standard, ... and some now incorporate a political process as well,” in determinations of what constitutes futile care. It seems to me that both of these questions are governmental, insofar as they ask: how is it that we can secure individual decisions at the end of life in such a way that they have, at the same time, a universal character over the broad practices of a population? Thus calling the medical care for an individual futile means establishing social regulations, procedures, and rules that are accepted generally in order for an individual decision to be legitimate and authoritative. Not only that, but they must also be rendered within the rubric of social ends, economic realities, and the politics of consensus. As Callahan concludes, discussions of medical futility “began with the naive expectation that they could be solved with good medical information. Instead, they have forced a confrontation with a wide range of moral, economic, and political issues.”³⁷⁰

What is striking about the end of life apparatus we have been tracing is that it organizes the relation of individuals to the end of life through a rationality of

³⁶⁸ *Ibid.* Pg. 31. See also: Lantos, John D., Peter A. Singer, Robert M. Walker, Gregory P. Gramelspacher, Gary R. Shapiro, Miguel A. Sanchez-Gonzalez, Carol B. Stocking, Steven H. Miles, and Mark Siegler. 1989. “The Illusion of Futility in Clinical Practice.” *The American Journal of Medicine* 87: 81-84. Tomlinson, Tom, and Howard Brody. 1990. “Futility and the Ethics of Resuscitation.” *JAMA* 264 (10): 1276-1280.

³⁶⁹ “Medical Futility, Medical Necessity: The-problem-without-a-name.” Pg. 35.

³⁷⁰ “Medical Futility, Medical Necessity: The-problem-without-a-name.” Pg. 35.

individuality and collectivity. This rationality depends on the normative organization of a particular form of life at the end of life. This form of life, for example cognizant life, is one where dependency, responsibility and needs are governmentalized; where the nature of obligations are neither solely legal, economic, or ethical but, rather, all three at the time same: perhaps we can call them governmental obligations. What would be specific to such obligations, of course, is that their meaning would come from a specific rationality; a specific play of means and ends. This rationality depends on the reciprocal relationships between individuals who must have secured practices of freedom, the imperatives of an economic system of health provision and finance, the legitimacy of “democratic” processes to imbue policy changes with their legitimacy, and the global moral principles that animate them. These are obligations that come from the legitimacy of ends that simultaneously satisfy the global strategic ends of collective existence and which secure for individuals a space of “freedom.”

The apparatus of governmentality specific to cognizant life is replete with a set of dreams. It seeks to secure the conditions under which “good ethics is good health economics.” It looks for a form of obligation so that deciding the limits of medical care can be given as individual responsibilities that have to be legitimated by the mechanical production of consensus through “democratic” processes of a community. Alarmists sometimes claim, for example in the case of futile care, that we are heading down a path of legitimated euthanasia or mercy killing. In my view, this analysis must become more nuanced. The concept of futile care is not driven by the notion that we must achieve global economic ends alone, but by the notion that a good economic analysis will help us

determine what the ethical problems are. Perhaps this is more insidious than overt euthanasia. Bioethical discourse has become so ubiquitous that it now easily passes in and out of the economic rationalities and social policy at the end of life. It could be easy to claim we have become the most ethical society in history. But what does our ethics look like, where does it come from, how do we recognize our ethical actions? The bioethics of cognizant life is an instrumental system that we have developed within a discourse of global and strategic ends through what Foucault called processes of subjectification: this individual, in this situation, is morally allowed to decide; processes exist to sanction those decisions and discourses exist to allow people to accept them so as to limit legal liability, maximize economic gain, protect a series of “fundamental values,” and endow individuals with a sense of freedom.

The cognizant life of the vegetative subject, I have been suggesting, is a form of life through which are bound two rationalities of governing dying members of population. The vegetative subject is the condition of, solution to, and legitimating principle for all of the biopolitical struggles (legal, economic, moral, etc.) over cognizant life. First, this subject is aligned with the strategic aim of organizing social institutions that care for end of life patients, the specialization of care, the proper and efficient use of life-sustaining and experimental technologies, reduction of wasteful spending, and taming of costly health expenditures. Second, it neatly invokes a complementary ethical discourse to an economic imperative by centralizing autonomy, choice, and freedom, in order to preserve the dignity of individuals through these free activities. So long as the medical, legal, and ethical subject of cognizant life is predominantly figured through the

problem of protecting autonomy and self-determination, there will exist the conceptual preconditions for the end of life to be understood through a rationality of rationally acting subjects. Third, this is a subject that allows for a particular discourse of obligation and responsibility to appear in relations of dependence, the limits of medical care, and the moral values of a society which must care for the dying.

5. A governmental encounter with death

In this chapter, I have demonstrated that the “dying and death consensus” we saw deployed in the Schiavo case is better understood as a governmental apparatus. This apparatus corresponds not only to the strategies and tactics of the production, circulation, and distribution of the vegetative subject in contemporary society. It also corresponds to the transformation of our encounter with a specific form of life and death. Cognizant life renders acute the problem of death as a problem of subjectlessness, as that form of life which remains alive and where the human qualities which may define a human being are not, with certainty, absent. What is more, death as subjectlessness is a result of human activities themselves, it follows from the fact that individuals have acted to sustain the biological life of an Other and where the relation to death is entirely mediated by the choices of human beings. What separates this relation to death from, for example, the crimes of murder, death in war, or the natural progression of diseases, is that the work of our hands in the deaths of others is co-extensive with the technologies, practices, and means by which we are producing a discourse of human life itself in the brain, and the technologies by which we sustain the life of the body. Moreover, an ethical relationship

constructs the relation we have with the vegetative subject who, in turn, occupies a relation to death. The biopoliticization of cognizant life requires that we produce the other as a subject to whom we have an ethical relation *in order for* the encounter with death to be possible at all.

What I have tried to show is that the modes by which this ethical relationship to cognizant life, as the life of an Other, are plural and diverse. The governmental apparatus extends itself across social relations, economic processes, political narratives, or discourse of moral values not only to make the end of life materially and discursively intelligible, but to supply the preconditions on which an ethical relationship may exist. For example, economic rationalities of end of life care attempt to locate ethical questions, concepts of futile care establish limits to provision of care as an ethical right of physicians; or decisions are legitimated by “democratic” processes and ethics review boards. I argued that a neoliberal political rationality animates this governmental activity, and so too the conditions under which our relation to an other who exists in a relation with death. This rationality is that which seeks to simultaneously individualize and totalize, under the aegis of the State, the relations one has to a vegetative subject. Local medical provisions are given their global intelligibility in health care financing; individual end of life decisions between the patient and members of their family are regulated by the State; hospice care practices are subject to rules and regulations that align them with a national network of palliative care; and the reasons for our moral reflection on the “right to life” or the “right to die” are debated as legal rights that require the state and court’s protections of individual freedom. The “death” that we encounter in

this case is one that spans individuals and collectivities; it pits each and every single individual within a form of reason that has a collective intelligibility.

I am worried that Agamben may be right when he writes that the “pure activity of government aims at nothing other than its own replication.” The “end of life” apparatus is a system so invested in producing a subject from subjectlessness that it employs processes of subjectification not only on the body and brain of the vegetative patient, but on each and every individual in relation to it, which today means each and every individual *per se*. Foucault gave a name to experiences such as diseases, sexuality, reproduction, insanity, and death -- “fundamental experiences” -- and I think Agamben is right when he writes that an apparatus is a “universal” insofar as it aims to achieve universality through governmentality. But the reasons for this form of power in our society is not, as Agamben argued in an earlier book, the spatialization of a “state of exception” across material and discursive practices. The vegetative subject is not that figure which suspends normative law and re-founds it. Rather, the full measure of law and ethics has been cast over the form of life specific to the vegetative subject as extended across economy, social institutions, and moral reflection itself. It is not the exception but the rule; it expresses the rule by which we rule, and the logic by which we extend the rule across more and more activities. The governmental apparatus we have been describing here, in relation to a “fundamental experience” such as death, is a centripetal form of power: it seeks to bring every single relation and action that is intelligible in relation to death under the purview of technologies that bind individuals to a collective social and political existence.

What is unique to the encounter with death that I have been tracing here is that it emerges from a discourse of human life: the life of the brain generally, and cognizant life in particular. There is no reason to assume that we will, in the near future, turn away from the brain as a discourse of human life itself. To the contrary; the cognitive life of the brain has become a central pillar in both the humanities and social sciences as a means of explaining behavior, thought, action, meaning, emotion, and desire. It has been particularly useful for the economic sciences that have tied the results of neuroscience to foundational assumptions of humans as rational actors and decision-makers. The brain has a cultural and political relevance: it renders, for example, the voter or consumer intelligible as a new object of social science and governmental practice. But what I have tried to show is that this discourse of the brain represents, at the same time, the fact that we have crossed a new biopolitical threshold. For the technological capacity to sustain the life of the body, and to isolate even the most remote cerebral processes as the meaningful and even foundational conditions for *human* existence, has produced a new encounter with the reach and limits of our means of intervening in the lives of others. Death appears in this space, not as murder, but as a limit of human capacity to sustain life and the necessity of adjudicating this limit within a governmental apparatus. Here, the brain represents a new fact of our biopolitical society: that the work of our hands in sustaining life and making it grow within the realm of economic and political calculation forces us to follow the path of the bullet all the way to the moment when an individual is, as Margaret Lock puts it, “twice dead.”

Foucault, in *The History of Sexuality*, remarks that western man has been “gradually learning what it [means] to be a living being in a living world, to have a body, conditions of existence, probabilities of life, an individual and collective welfare, forces that could be modified, and a space in which they could be distributed in an optimal manner.”³⁷¹ At the time, Foucault thought that this development of biopower entailed a retreat of a juridical form of power over death. Hence, death was an experience from which “the procedures of power have not ceased to turn away from.”³⁷² Since then, I think the biopolitical literature has generally accepted that only life belongs to biopower, and that the only form of power which corresponds to death is the juridical right of the sovereign to take life. What Foucault could not see, however, is that a non-juridical form of power has emerged in relation to death precisely because of the emergence of a new discourse of life, and the production of new biopolitical subjects (the vegetative subject) based on this discourse (i.e., cognizant life). What *we* need to see is that the form of power which belongs to death is not simply the inverse of the power over life. It is rather the powers that *make death visible* as a social, political, or economic reality. Indeed, it is because the cognizant life of the vegetative subject renders death intelligible, through the question of life as a problem of government, that we are able to recognize our *complicity* in the deaths of others. This is what is so special to the form of death we are encountering today: it takes an entire apparatus of life in order to have an ethical, social,

³⁷¹ Foucault, Michel. 1990. *The History of Sexuality, vol. 1: an Introduction*. New York: Vintage. Pg. 142.

³⁷² *The History of Sexuality, vol. 1*. Pg. 138.

or juridical relation to death in the first place. What I think the dominance of the dying and death apparatus signal is a crisis in our imagination with respect to understanding how the conditions of our lives, in our society, simultaneously produce a privileged discourse of dying and death. Part of the function of the apparatus is precisely to mobilize a full measure of our ethical and legal thought towards individuals who occupy a particular relation to death.

It is patently evident that the economic, social, and political developments of modern societies render acute, as objects of human practice, the conditions of individual and collective existence. The biopolitical nature of our economic and social order corresponds not only to the increasing interest of power in the processes of life. It also corresponds to the fact that the conditions of collective existence expose certain segments of the population to new forms of dying and death. Ecological despoliation -- which will affect agricultural patterns, the distribution of disease, or the energy consumption of whole nations -- is but one form by which our capacity to harness "life" engenders a new relation to "death." What makes ecological despoliation different from cognizant life, however, is that whereas in the latter case we have developed an apparatus of government which renders death visible, in the former we have not. We have not yet developed a discourse by which we may "follow the path of the bullet" from our everyday actions to the ways those actions endanger whole segments of a population. We have not yet developed, in the case of ecological despoliation, a narrative by which to make the Other who exists in a relation to death visible as a relation to ourselves that calls upon us to enact an ethics.

This is not to say that the dying and death apparatus should be lauded. In my view, the inclusion of the vegetative subject as a normative, grounding figure of our relation to the deaths of others in a medical context is extremely dangerous. Again, the “ethics” which emerges in this apparatus is one that operates on the conditions of an economic, social, legal reading that essentially turns on the necessity of government. The ethics of exchange implicit in Mr. Schiavo’s reading of the “gift” given to him by his mother, and which let him accept and even give meaning to the death of his wife, has no place in this apparatus. Nothing is more dangerous than handing over our way of living as ethical persons to a governmental apparatus. But there is likely a more insidious function of this apparatus: to limit our reflection on death across other forms of life. Indeed, my view is that because the dying and death apparatus speaks of death *per se*, it actively limits how we may recognize the “work of our hands in the deaths of others” in the ecological despoliation we are actively producing. We seem content to believe that we have figured out how our ethics should appear in a “technological” society. What we fail to see are the governmental forms of power that condition that very reflection on the ethics of the end of life as the work of our hands.

“The future man, whom the scientists tell us they will produce in no more than a hundred years, seems to be possessed by a rebellion against human existence as it has been given, a free gift from nowhere ... which he wishes to exchange, as it were, for something he has made himself.”³⁷³

“The conception of the mind as a machine ... [is] the very conception that allows us to imagine the possibility of (re)fabricating ourselves.”³⁷⁴

1. Visibility and the vegetative body

This thesis began by tracing the discursive and material production of the vegetative body in the case of Theresa Schiavo: how Ms. Schiavo’s body was produced and recognized through practices that rendered her body visible *as a* vegetative body. By reconstructing Schiavo case across medicine, law, ethics, and economy, I argued that, in order for her body to be recognized as a vegetative body, particular constitutive elements of a *subject* needed to be made visible through it. For example, the diagnosis and prognosis of the vegetative state, necessary to make a *medical subject*, requires articulating the visibility of, and giving meaning to, consciousness through the behaviors

³⁷³ Arendt, Hannah. 1998 (1958). *The Human Condition*. Chicago, IL: University of Chicago Press. Pg. 2-3.

³⁷⁴ Dupuy Jean-Pierre. 2009 (1994). *The Mechanization of the Mind*. 2nd ed. Cambridge, MA: MIT Press.

of an animated body and the processes of the brain. The *legal formation* of the vegetative body required situating the body in a certain narrative frame in which a self-determining and intentional subject appears in relation to their own decisions about death. *Ethical problems* posed by caring for a vegetative subject centered on how institutions authorized the vegetative body as a subject of various social relations that could legitimate adjudicating end of life decisions. It was through practices of visibility themselves, I argued, that the brain, death, life, consciousness, intentionality, and self-determination each configured how we recognize a vegetative subject. In fact, what was common to these practices of visibility was not simply the production of a subject, but the bodily articulation of a threshold of life and death on which the vegetative subject could appear.

The visibility of Ms. Schiavo's body also provided the venue for examining more concretely the social arrangements that make possible a threshold of life and death. These arrangements were mediated by the deployment of State interests, institutional procedures, financing concerns, legal precedents and, as I noted above, various ethical questions that problematized how others must act for a subject who, paradoxically, must act for itself as an autonomous subject. The control and regulation of these social arrangements, however, was crucial to coordinating the production of the vegetative subject. Indeed, producing the visibility of Ms. Schiavo's vegetative body aimed at producing a particular kind of subject and, thereby, legitimated a whole series of social, economic, legal, and ethical practices in relation to a threshold of dying and death. There was, I argued, a reciprocal relationship between the production of a vegetative subject

and the organization of the social arrangements of dying and death, each mediated by the visibility of a body on a space and threshold of life and death.

The visibility and meaning of the vegetative body today is also extremely fragile, and when Ms. Schiavo's body became an object of public visibility between 2003 and 2005, its meaning as a figure of collective scrutiny was up for grabs. Indeed, the excess of signification of the body which formed the backdrop of the Schiavo case was, itself, a contestation over what the subject on the threshold of life and death looks like, and what ought to be done about and for it. Disability rights groups, for example, contested the assumption that a person with decimated mental capacities like Ms. Schiavo should *not* be placed on a threshold of life and death at all. Conservative and so-called "right-to-life" groups argued that the basic moral imperative to protect and sustain life at all costs provides the discursive frame for the vegetative body. Contestations over the visibility of the vegetative body, however, were also contestations of the social arrangements regarding dying and death itself. In this respect, the legal actions of the courts, proxy-decision making for vegetative patients, and the State's rights to regulate the end of life were themselves targets of, variably, public ire, condemnation, or support.

The visibility of Ms. Schiavo's body was once again a matter of revision when, in the months after her legal and medical death and autopsy, a flurry of scientific, medical, and legal papers emerged to authorize a normative reading of the Schiavo case. Brain scans were deployed to argue, along with the autopsy, that Ms. Schiavo's brain was decimated beyond consciousness. Lawyers mobilized an enormous amount of case law to show that the legal organization of Ms. Schiavo as a legal subject fit within thirty years

of adjudication of the end of life. And other experts, social and ethical, reassured the public that the handling of Ms. Schiavo's life, body, and care corresponded to the most moral standards of contemporary society. I gave a name to this pattern of discursive activity and network of institutions and discourses that, in the last thirty years, have converged to normalize the meaning of the vegetative body and the threshold of life and death, and also to intervene social, political, and economic life so as to structure a field on which a particular form of death is encountered – I called this the “dying and death consensus.”

2. The vegetative subject and biopower

Giving a name to a general network of institutions and discourses that mediate a particular form of death and a subject who appears there allowed me reframe the visibility of the vegetative body into a question of power and subjectivity. Returning to the Schiavo case, I extracted a certain number of constitutive elements of the visibility of the vegetative body and argued that these elements were a form of power that made a subject intelligible. It was at this juncture that I raised two more questions: 1/ how did a discourse of life and death emerge around the neural, biological production of consciousness in the brain; 2/ how did this form of knowledge intersect with particular relations of biopower? And it was with respect to these constitutive elements of a subject and power that I began to raise in a more concrete fashion the general questions posed in the introduction: what does it mean to redefine the threshold of life and death, what is the experience we have with death today, what discursive or material practices condition this

experience, and how do we critique this experience as a general social, political, economic, and moral problem?

To answer these questions, I turned to the biopolitical and governmentality literature. On the one hand, the biopolitical literature helped me situate the production of the vegetative body as a subject. On the other hand, the governmentality literature helped me make sense of the dying and death consensus. Since the 1970s, when Foucault introduced these terms in a compelling series of historical studies, each has transformed into a general field of social, political, and economic inquiry. I argued that while both fields (biopolitics and governmentality) had remained rather separate in their development over the last three decades, however, a closer relationship needed be drawn between them to make sense of the vegetative subject and of the dying and death consensus. Indeed, the meaning of the vegetative body in contemporary society would best be understood if a methodological and conceptual rapprochement between biopolitics and governmentality could be drawn.

In order to facilitate this rapprochement, and situate the thesis conceptually, I simultaneously took up two problems in chapter two. The first was to organize the genealogical problem of the vegetative subject as an historical inquiry into the emergence of a particular knowledge of life and death. The vegetative subject is a biopolitical subject because of the way the nervous system rendered intelligible a biological discourse of human life; and because of the way the activity of the brain, as a discourse of life, was introduced in relation to brain death. The second problem was to reframe the dying and death consensus as an governmental apparatus that responds to the disruption of social,

medical, legal, and ethical practices posed by the vegetative subject. It was important, here, to argue that the political and practical response to the biopolitical struggles posed by the life and death of the vegetative subject took the form of a governmental apparatus. That is, it deployed a form of power that resolved these biopolitical struggles by first situating them, and the vegetative subject, in a “field” of social, ethical, medical, and legal activities that made sense of the “experience of death,” and then intervening in this field in the name of securing a “practice of freedom.”

Together, the biopolitics of the vegetative subject and the government of dying and death formed one project -- to examine the governmental biopolitics of the end of life, as a practice of freedom, through the prism of a particular biopolitical subject. Indeed, the link between the dying and death consensus *as an* apparatus of government, and the vegetative body as a vegetative subject, needed to be traced, I argued, through a particular form and rationality of biopower. This form of biopower emerges, historically (or genealogically), through the reciprocal give-and-take between a knowledge and discourse of human life located in the brain and the institutional and practical response to this “form of life” that slowly formed into an apparatus. What is unique to this apparatus is that it aims to produce a subject where, by definition, it is uncertain that one exists at all. More paradoxical still is the fact that this apparatus seeks to recognize and produce a subject who, in relation to death, embodies all the faculties which neuroscience and medicine recognize are absent from the vegetative patient -- self-determination, autonomy, etc. This is why the choice of an apparatus, as a methodological concept, seemed appropriate. As Agamben argues, the aim of an apparatus *is* to deploy a process

of subjectification in order to secure a practice of freedom. But we may wonder what it means to secure a practice of freedom for a subject who is, by definition, incapable of exercising it. It was at this point that I proposed two hypotheses. First, establishing a practice of freedom at the end of life is the means by which the governmental apparatus in question *expands* its rationality of biopower into various social, economic, legal, and ethical processes. Second, and following from the first, this apparatus not only secures its normativity by invoking a practice of freedom but, thereby, seeks to interpellate and integrate others into the orbit of its government -- i.e., it conditions how others see and construct themselves as ethical subjects in relation to others.

3. A genealogy of cognizant life and the vegetative subject

The historical investigation of the particular form of life embodied by the vegetative subject was the work of chapter three. This investigation took the form of a genealogy: i.e., a recovery of the ways particular knowledges and discourses of human life, rendered intelligible on the human body, articulated a subject. After a very brief introduction to the question of the relation of brain, mind, and body in western thought, I focused my attention on the way an epistemology of the *nervous system* was born through a particular, and specific, relation of the body to the mind. Over the course of early modernity, science, medicine, psychology, and philosophy expanded their knowledge of the nervous system as a biological knowledge of the human subject. In this regard I located a specific object in this discourse of life: this I referred to as *cognizant life*, the bare biological production of consciousness. Thus, it was not the life of the mind as a

whole which interested me, or the expansive knowledge we have today of the way the mind depends on complex nervous activity, but rather a bare threshold and object of human life *per se*, figured through only a minimum and critical amount of nervous activity.

The emergence of this form of life as a specific figure of thought and action required, in neuro-science, an inversion of the epistemological relation between brain and body. Throughout the second half of the nineteenth century, I argued, it was the body (a sensing, motoring, species body) that conditioned our understanding of the functions of the nervous system with respect to its relation to mind and the subject. But by the early 20th century, due in no small part to advances in medicine, science, psychology, and a theory of cerebral localization, it became possible to imagine that the mind was caused by the activity of the brain internal to itself. Berger's EEG waves were perhaps the first representation of this activity. What was more important was the close and central relationship of EEG waves, it was claimed, to the personality, consciousness, and subconsciousness of the individual. For here it became possible to articulate the human subject, in medicine, science, and psychology, strictly within the nervous system's, and mind's, internal relationship to itself.

It was in this context that I situated Jean-Pierre Dupuy's book on the origins of cognitive science and, more importantly, the birth of a physicalist discourse of the mind. Cognitive science seized a moment when it was possible to imagine the human being as coextensive with the operations of the brain itself. As Dupuy argues, the mechanization of the mind, rooted in a theory of natural computation and analytical philosophy of mind,

entailed mechanizing of the human *per se*. His work allowed me to advance an important claim about the production of cognizant life: the epistemic grounds on which cognizant life, as a physicalist discourse of the mind, is intelligible is through an ontological aporia of mental life. There is nothing ontologically specific to human mental life according to cognitive science; indeed, cognitive science produces knowledge of our thought and mental life on the condition that it is not specifically human. As Dupuy argues, the science of the mind turns out to be a technology of simulating mental existence and presence, i.e., of *simulating* the individual human being. What then happens to the body? I argued that the emancipation of the mind as a physicalist discourse of life itself had as one of its corollaries the view that bodies are, as we say, *embodied*. Any “body,” so long as it performs a function of mediating mind and environment, will do. Indeed, the relation of the body to mind is merely a functional one; it denotes nothing ontologically special about the way mental life, or life *tout court*, constitutes what is ontologically specific to humans as living beings in a living world.

The origins of cognitive science signal a more general turn in biopolitics (although Dupuy does not phrase it that way), for what it became possible to think and literally build was a new kind of biopolitical subject. Cognitive science heralds the ushering into human affairs of a discourse of life whereby ontology is reduced to epistemology, technoscience, and the limits of our capacity to “make life.” Indeed, one may say that the science of the mind and the production of cognizant life depend on the constitutive *absence* of any specific ontological claims about the mind doing the thinking or, in the case of the vegetative subject, the mind’s awareness and consciousness as the

condition of the self. It is through this very constitutive absence of any ontological specificity that the life of a body may be extended *ad infinitum*, for what is always suspected, but can never be confirmed, in the figure of cognizant life, is whether or not certain processes of the brain are sufficient for a mind itself. Indeed, Dupuy coins an important term to describe how a physicalist discourse of the mind is, at one and the same time, a reduction of ontology to technics and epistemology: the science of the mind is a science of *subjectless processes* to which we must ascribe intentionality. To put it in a different way: cognizant life is a life of subjectless processes to which we must ascribe a subject.

The epistemic foundations of a cognitive science of mind, and the subordination of the body to the mind as a discourse of mental life, were mirrored practically in a critical turn in medicine. The viability of organ transplantation, and the desire to advance it dramatically, was the context in which cognitive science, as a discourse of life, could be asserted to achieve certain ends. As I noted in chapter three, two discourses of life were critical to organ transplantation: one of the body, one of the mind, but where the latter dominated the former. But in order to work, the life of the subject needed to be consolidated with the life of the brain. Indeed, medicine and psychology completed the operation they had inaugurated in the late 19th and early 20th centuries by introducing the notion of *brain-death* as the death of the subject *per se*. To put things in another way: the existential uncertainty of death was transformed into (or reduced to) a technical, scientific uncertainty of detecting the consciousness of a medical subject and, thereby, the

subject itself was reduced to the absence of the neural processes sufficient to condition the mind.

4. The governmentalization of the cognizant life at the end of life

With the concept of cognizant life to identify the existence of a real object of life and death in contemporary society, I examined in chapter four where and how cognizant life emerges as a biopolitical struggle. It was in this sense that I traced a rationality of biopower and its deployment over a number of concrete social relations (economic processes, ethical dilemmas, and end of life jurisprudence) as co-extensive with the problem of producing a biopolitical subject through cognizant life. Indeed, unique to this rationality of biopower is that the production of the vegetative subject requires as a condition for its existence the *subjectlessness of cognizant life*. I thus presented the rationality of biopower specific to cognizant life as so many different technologies of subjectivity that aim to resolve various struggles by individualizing and globalizing a general form of experience and a general rationality of power.

I called this general rationality of power the “dying and death apparatus,” which has as its object an experience that we call the “end of life.” The first order of business of this apparatus is to render visible an “end of life” experience as a mediated, concrete, and material threshold. The threshold of life and death of cognizant life is transformed by the apparatus into a general field of social, ethical, legal and economic problems. Indeed, both the subjectivity of the individual, and the “end of life” as a field of activities, relations, actions, and procedures, are simultaneously the objects, means, and aims of the

apparatus itself. In order to chart this apparatus and the extent of its rationality of biopower, I traced three “arms” of the apparatus. To be sure, these three arms are mutually interdependent. The medical intelligibility of cognizant life, couched in what Owen and Laureys hail today as a “new era of coma and consciousness research,” identifies within a population of brain-injured patients not only the neurological locus of consciousness, but the subject who is “beyond health;” subjectlessness is thereby extended, albeit in a new register. It is at this point that the law intervenes to produce and impose a legal, autonomous, self-determining and willful subject in relation to one’s status beyond health, yet in relation to death. But even if the law may produce this subject, the work of the apparatus is incomplete until it intervenes in the various practical questions and processes that actually mediate the relation to death -- suspending life support, adjudicating between various interests, reconciling various disputes, and so on.

I argued that the “extension” of this apparatus into a general social, economic, and political field of dying and death depended on conceptualizing the end of life as a space of freedom. Indeed, it is up to this apparatus to secure the end of life as a space of “freedom” for the vegetative subject in order for this subject to appear at all. This is, in my view, one of the most insidious aspects of the end of life apparatus: by normalizing the end of life as a space of freedom and locating a subject there, the apparatus at the end of life simultaneously secures the conditions by which it extends itself across various social, political, economic, and ethical relationships and processes. We saw this most clearly, perhaps, in the extension of the end of life apparatus into the economic domain of public financing and provision for health care. For what is more pertinent today to

governing than regulating the social body through the economy? It was precisely because the end of life, as a field of economic relations, could be integrated into the material and concrete threshold of life and death that the dying and death apparatus regulates it through the deployment of bioethics: who can do what, to whom, on which conditions and at what moment? Thus, the processes of subjectification of this apparatus are not limited to the figure of cognizant life; they also extend to anyone who occupies a relation to it.

It was at this point that I turned my attention toward giving an account of the rationality of biopower brought into play by the dying and death apparatus. On the one hand, the biopolitical subject of freedom at the end of life is necessary for a governmental apparatus to extend itself across the social, economic, political, and cultural life of a population. At the same time, however, the capacity for this apparatus to regulate, monitor, intervene, and extend itself across the social, economic, political, and cultural life of a population is the condition by which it may recognize a subject in the first place. The ramifications of the governmentalization of death as a form of biopower deployed across society, economy, law and ethics, is that we have circumscribed how we render intelligible the subject in relation to death and, more importantly, the work of our hands in the lives and deaths of others. Indeed, here is where we return to the problem of visibility or the problem with which we began : a biopoliticized, governmental apparatus of life and death, having extended itself across a whole domain of concrete, material activities that order the social arrangements of dying as a normative practice of freedom,

simultaneously establishes the conditions and limits by which we make visible and recognize who occupies a relation to death.

5. The generality of the Schiavo case

Three months after her legal and medical death, Theresa Schiavo's ashes were buried at Sylvan Abbey Memorial Park in Clearwater, Florida. On the tombstone requested by Mr. Schiavo was engraved a message that, in nearly every respect, expresses a rebellion against the way in which the dying and death apparatus mediated the life and death of Ms. Schiavo as a vegetative subject:

Born December 3, 1963
 Departed this Earth
 February 25, 1990
 At Peace March 31, 2005
 I kept my promise

We are perhaps in a position to make sense of the enigmatic nature of this engraving, and locate more generally the Schiavo case in our current historical moment. As I argued in chapter one, there is no reason to believe the contemporary order of dying and death will remain in its current configuration, just as there is no reason to expect that the rationality of biopower that animates it will remain limited to the field of dying and death or the vegetative subject. We may well read this enigmatic message on Ms. Schiavo's gravestone as a harbinger. But of what? In what sense, for example, might the three dates on Schiavo's gravestone signal what is at stake in our political and cultural

encounter with life and death, and the nature of both? What does it mean that a person has departed the earth on a day other than her legal and medical death? And what does it mean, finally, that someone claims to have kept a promise when an entire apparatus mobilized a whole set of social, legal, and ethical processes such that the intervention into the death of a human being cannot be authorized by something like a promise?

The three dates on Ms. Schiavo's gravestone belong to two orders of meaning. They may be differentiated as follows: whereas her date of birth remains, as it has remained for humans for millennia, a representation of a force of life outside of human control that ushers a being into the world, the schism between her date of "departure" and date of "peace" signals the uneasy perplexities which arise when death has been subordinated to human control. The March 31, 2005 death is an epistemological death; its rationale belongs to human knowledge and mediation. If law, medicine and ethics are likewise identified with this date, it is because they, too, have been reduced to the realm of technics. Indeed, whereas the declarative "at peace" signals the *relief* of a subject from human activity and its control over life and death, "departed this earth" reminds us of a force that remains *outside* of human activity. To be "born" and to "depart this earth," Arendt teaches us in the book from which the epigraph that begins this chapter is taken, are "gifts" we may not give to ourselves; they are gifts from nowhere. And it is precisely to the fact that we have exchanged these gifts "for something [we] have made ourselves," an exchange embodied by the vegetative subject and the work of the dying and death apparatus, that the line "at peace" rebels. For indeed, this line resists a form of power that, armed with an epistemology of human arrival, existence, and departure, seeks to

remake the human subject, from birth to death, within the confines of what it controls, regulates, and arbitrates as a problem merely of government and its corollary -- a thin and marginal notion of “freedom.”

In a recent paper, Dupuy thematized the arguments he developed in *The Mechanization of Mind* to consider the consequences of introducing into the panoply of human technical capacities the armature of cognitive science.³⁷⁵ At issue in this paper is what is known as “technological convergence,” a term that has long had currency in technoscience but which was recently given a political reality in a report commissioned by the Department of Commerce and NSF.³⁷⁶ The expression refers to the likelihood that, in the short-term, knowledge in nanotechnology, biology, information technology, and cognitive science (a.k.a., NBIC) will converge to provide a unified, material account of the world and everything that inhabits it. All matter, living and non-living, micro- and macro, are to be rendered indistinguishable and seamlessly integrated into vast technical capacities used to “advance life.” Cognitive science represents an important form of knowledge in this schema: it aims to secure the human figure within a science that claims

³⁷⁵ Dupuy, Jean-Pierre. 2005. “The Philosophical Foundations of Nanoethics: Arguments for a method.” Paper presented at the NanoEthics Conference. University of South Carolina, Columbia, South Carolina, USA, March 2-5.

³⁷⁶ Roco, Mihail C., and William Sims Bainbridge, ed. 2002. *Converging technologies for improving human performance: nanotechnology, biotechnology, information technology and cognitive science*. U.S. National Science Foundation.

it can account for, and act in, all of material life, non-life, and death.³⁷⁷ For Dupuy, the danger here is not simply that we have developed a science and knowledge which aims to “act in the world [...] without limit.”³⁷⁸ It is, rather, that the advent of a project, indeed an apparatus, which aims to account for the material unity of the universe, including the presence of human beings, requires cognitive science to ground its knowledge of the human. Indeed, the very concept of “converging technologies for improving human performance,” which licenses the limitlessness human action, requires a category-shift of the human subject as a living being in a living world. To argue for, and believe in, a science that subordinates all of nature to human control requires conceptualizing humans as co-extensive with, and limited by, a technical epistemology of total material unity. Reflecting on this state of affairs, Dupuy highlights a distinction that has for a long time, and in many different forms, constituted an important conditioning principle in the existence of human beings as subjects distinct and unique in the world -- our birth and death are beyond our control. Cognitive science, and the push for technological convergence, “drains of all meaning one of the most essential distinctions known to

³⁷⁷ The list of major themes offered in the NBIC report is perhaps enough to give an impression of the scope, depth, and aims of the collaborative, state-funded effort to effectively bring about “technological convergence.” Those themes are as follows: expanding human cognition and communication, improving human health and physical capabilities, enhancing group and societal outcomes, national security, and unifying science and education. As the report conclude’s its introduction: “A vast opportunity is created by the convergence of sciences and technologies starting with integration from the nanoscale and having immense individual, societal and historical implications for human development. The participants in the meetings who prepared this report recommend *a national research and development priority area on converging technologies focused on enhancing human performance*,” pg. xiii.

³⁷⁸ “The Philosophical Foundations of Nanoethics: Arguments for a method.” Pg. 3.

humanity since the moment it first came into existence: the distinction between that which lives and what which does not; or, to speak more bluntly, between life and death.”³⁷⁹ We are coming to understand our existence in the world, and our interdependence with others as a group, community, and species, through a knowledge and technology that does not render unique the worldly existence of the human being as such.

The “draining” of a formerly meaningful distinction between life and death, so vividly captured by the triad of dates on Ms. Schiavo’s gravestone, thus points us to a more general, and perhaps imminent, state of affairs: the “reduction of the ontological to the epistemological.”³⁸⁰ This reduction is the price we are paying when we render intelligible, and take control of, our social, economic, legal, and political interdependence through a discourse of life itself. What seems to be inescapable in this reductive operation is the moment that produces the human subject through what I called a “void of personhood.” Indeed, what is characteristic of the new sciences of life is not simply that they seek to bring under one and only one umbrella “all of life” or “all of matter.” What is characteristic is that the new sciences of life perform this “epistemic reduction” through discourses of life that are not ontologically specific to human beings while nevertheless including humans into this sphere of intelligibility. The danger here, as

³⁷⁹ Dupuy, Jean-Pierre. 2009 (1994). *The Mechanization of the Mind*. 2nd ed. Cambridge, MA: MIT Press. Pg. xvii.

³⁸⁰ Dupuy, Jean-Pierre. 2005. “The Philosophical Foundations of Nanoethics: Arguments for a method.” Paper presented at the NanoEthics Conference. University of South Carolina, Columbia, South Carolina, USA, March 2-5.

Dupuy is right to note, is not simply that we are “losing what it means to be human,” but that we have removed from the view of the world as a field of material forces we inhabit the figure which for so long guarded against excess: the human subject as such is ontologically prior to, and a condition of, the worldly life we share with others. The vegetative subject demonstrates this form of knowledge and biopower in action. For it is in the same very action that renders the body of the vegetative subject endlessly alive that an apparatus is deployed to simulate, and render intelligible, a self-determining autonomous being. That is, it is in the very same a gesture which produces the biopolitical subject on the condition of a “void of personhood” that human action appears most limitless. We have managed to achieve and conceptualize the limitlessness of our own action to intervene in the world and on our lives on the condition that an ontological aporia -- which serves as the principle for imagining the human being in the world -- opens the world to human action itself.

6. The biopolitics of cognizant life

It is platitude to state that we are living in a world where the actions of individuals reverberate farther than ever before. The world -- economically, socially, culturally, environmentally, and politically -- has never been more interdependent, due largely to the ways we understand the material and biological conditions under which we live, eat, breathe, are sick, and die. We cannot will this dependence away any more than we can stop ourselves from investigating the biological and material conditions of our well-being, survival, prosperity. What is new in the matrices of interdependence, however, are

the forms of knowledge which render human beings intelligible as subjects who are living beings in this world. The Schiavo case is a microcosm of this state of affairs. How do we govern ourselves when our interdependence is grounded in a physicalist discourse of human life and death that, at the same time, opens up the limitlessness of human action? The claim on Ms. Schiavo's gravestone that a "promise" was kept places both the biologically-conditioned interdependence of our lives, the limitlessness of human action, and the form of power that animates it, into stark relief. It is precisely because of a constitutive "void of personhood" in the figure of the human subject whose body remains an object of medical attention that governmentality asserts itself. And it is against the governmentalization of the end of life, and the biopower that animates it, that Michael Schiavo's promise could be said to rebel.

The "promise" in question here is not a typical promise: Michael Schiavo never claimed that his wife had asked him to promise he would let her die if she were reduced to the life of a vegetative patient. Rather, the "promise" in question here is faculty deployed to make sense of, and overcome, the existential uncertainty embodied by Ms. Schiavo's vegetative state. Indeed, the meaning of Mr. Schiavo's "promise" is precisely to affirm the existence of a human being, and a relation to death, which cannot be integrated into the dying and death apparatus -- that is, where the ontology of the subject on the threshold of life and death cannot be reduced to an epistemological or technical question. This apparatus of government cares nothing for social relations based on something like the faculty of "promising." The only forms of uncertainty which it allows to be meaningful are those that either belong to science or which it may interpret away

through a legal process of asserting a self-determining, autonomous being. Whereas Mr. Schiavo's "promise" may address itself to the fact that his wife's existence is conditioned by her physical dependence on others *but refuses* a physicalist discourse of the subject to frame the meaning of his actions, the dying and death apparatus asserts the opposite: it is *because* Ms. Schiavo is legible as a being of total physical dependence that we *may and must* assert her subjectivity entirely unmoored from all of the social relationships which she had prior to her physical dependence. Indeed, a legal construct such as a living will or advance directive is nothing but the governmental transformation, and perversion, of a "promise." For it seeks to set up only a promise "to oneself," again setting the context for such a promise to be respected as a mere instruction of a program, executable by any one and, therefore, no *one* in particular.

The meaning and work of the "promise" on Schiavo's gravestone raises indeed the question of how we are to resist the production of subjectless biopolitical subjects and the governmental response. It is difficult to make sense of this question without returning, again, to the fact that our new technologies of sustaining and producing life have extended so far that we have now a new encounter with death. Biotechnologies, in particular, have been the primary form by which we encounter a new threshold of life and death. In Dupuy's view, what is required is a new ethic and, perhaps more importantly, an ethics of self-restraint. "The human subject," he argues, "will need to have recourse to a supplementary endowment of will and conscience in order to determine, not what he can do, but what he ought to do -- or, rather, what he ought not to do." The reason why an ethic of self-restraint is necessary, in his view, is that we cannot possibly imagine --

morally or technically -- the ramifications of our control over nature through the biosciences. In his view, an ethic of self-restraint is necessary because we cannot overcome the uncertainties of our own capacity to regulate and control life, and we cannot anticipate the unintended consequences those technologies and sciences may have on our lives. This is not to say, however, that we should halt scientific knowledge. We can follow a path of knowledge, but we must develop a principle of self-restraint that says we will not necessarily build or act on this knowledge.

When I read this argument, I was reminded of a passage from an exchange of letters between Günther Anders, a great German moralist of the atomic age (and the first husband of Hannah Arendt), and Claude Eatherly, the pilot of one of seven B-29s which took part in the mission that dropped the atomic bomb on Hiroshima.³⁸¹ In one of his first letters to Eatherly, Anders attaches a short document titled “Commandments in the Atomic Age.” A moving critique of the crisis of “moral imagination” ushered in by the “atom,” it remains today as relevant as ever. We cannot will away our knowledge of the bomb, Anders says, anymore than we can will away the militant desire to build it. We must instead come to terms with the fact that our technical knowledge to destroy the human species is now impossible to grasp from a moral point of view. “From now on,”

³⁸¹ Anders, Gunther, and Claude R. Eatherly. 1989 (1962). *Burning Conscience: The case of the Hiroshima Pilot, Claude Eatherly, told in his letters to Günther Anders*. St. Paul, MN: Paragon House. Pg. 20. Claude Eatherly was not the pilot of the *Enola Gay*. That dubious distinction goes to the remorseless Paul Tibbets, who also designed the Hiroshima and Nagasaki mission and trained pilots for 10 months to execute them. Eatherly was the pilot of *The Straight Flush*, a B-29 bomber retrofit to serve as a weather reconnaissance aircraft. On the morning of August 8, 1945, *The Straight Flush* and other aircraft of the 393rd Bomb Squadron departed for Hiroshima an hour ahead of the *Enola Gay* to report on weather conditions. He did not take part in the Nagasaki mission.

wrote Anders, “mankind will always and for eternity live under the dark shadow of the monster.”³⁸² We cannot resolve this situation by attempting to eliminate the *physical* danger of the bomb. “We have to understand,” wrote Anders, “that our fight against the mere physical existence of these objects and against their construction, their try-outs, their storage, turns out to be utterly insufficient.”³⁸³ What then are we to do? “The goal we have to reach cannot be to *not* have the thing; but never to use the thing, although we cannot help having it; never to use it, although there will be no such day on which we couldn’t use it.”³⁸⁴ The task is therefore to “saturate the soul of mankind” with a principle of self-restraint: “never to take the step although it will always be possible.”³⁸⁵

The existence of the vegetative subject raises a similar crisis in our moral imagination. What is at stake here is not merely the capacity to rebuild, rehabilitate, and re-fabricate life *ad infinitum*, or the existential uncertainty of a prolonged, instrumental encounter with death. What is at stake is the failure of moral thought to imagine itself, and the human subject, outside of the technical capacity to harness physical life as the domain of human affairs itself. We can never will away our knowledge of life as physical and causal processes which we may control any more than we can will away the expanded matrices of interdependence we are caught in. Is then our task to develop an ethic and principle of self-restraint? Must we develop a principle that says: we may in

³⁸² *Burning Conscience: The case of the Hiroshima Pilot, Claude Eatherly, told in his letters to Günther Anders*. Pg. 20.

³⁸³ *Ibid.* Pg. 20.

³⁸⁴ *Ibid.* Pg. 21.

³⁸⁵ *Ibid.* Pg. 22.

the future be able to sustain life forever, but we must not? Ivan Illich, the great nemesis of the national health industry, argued along these terms, no less defiantly than Anders. In a well known speech given in 1990 in Hannover, Germany, Illich offered a list of “certain liberties for those who would celebrate living rather than preserve ‘life.’” The last of these liberties was the following: “the liberty to die without diagnosis.”³⁸⁶ Here, too, one senses the call for a principle of self-restraint to halt the iatrogenesis all our experience of pain, suffering, and death in the name of the technical capacity to forestall it under the false promise of escaping it.

My research on the vegetative subject demonstrates that calls for founding a moral response to the biopolitical crisis of the vegetative subject in an ethic of self-restraint is an insufficient task. Today, normative bioethical reflection on the end of life -- the most dominant and advanced expression of which is to be found in the vegetative subject -- is itself part and parcel of the governmental apparatus that sets the conditions on which we render intelligible our capacity to intervene in life. Indeed, the bioethics of the dying and death apparatus conditions the very form and nature of our relations to the vegetative subject by which we understand our interdependence with others. By governing who we can recognize as the vegetative subject, this apparatus at the same time governs how we can act ethically at all. This “governmentalization of alterity” is what I think is the most important lesson of the Schiavo case. Whereas thirty years ago, when no such governmental apparatus for the end of life existed as dominantly as it does

³⁸⁶ Illich, Ivan. 1992 (1990). “Health as One’s Own Responsibility - No, Thank You!” *Ellul Studies Forum* 8: 3-5. Translated by Jutta Mason, edited by Lee Hoinacki, from a speech given in Hannover, Germany, September 14, 1990.

today, the vegetative subject and our relation to it could indeed have been fashioned otherwise. But it is the bioethical arm of end of life government that sets the conditions for our interpretation of our relations of dependence on others at the end of life. We are not merely in the midst of an ethical crisis, but a biopolitical one; a rationality of conduct and living at the end of life has now extended itself far beyond the reach of the clinic and science. How can an ethic of self-restraint possibly take hold when a discourse of freedom, choice, and self-determination governs our technical encounter with the end of life? How can we fight a governmental apparatus and form of biopower whose normative aim is to secure freedom? How can we refuse to use a knowledge and technology when its basic mode of being is to reveal and secure human freedom?

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