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Truth and Cognition

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in

Philosophy and Cognitive Science

by

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2007
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ABSTRACT OF THE DISSERTATION

Truth and Cognition

by

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Recent work on truth has taken the overarching theoretical endeavor to be explanation. A central claim of deflationism, for instance, is the minimalist thesis that all the facts involving truth can be explained with very minimal explanatory resources (e.g., biconditional T-schemas). Plainly though, what counts as an adequate explanation depends on what the explanandum consists in. The aforementioned minimalist thesis, after all, is only plausible given antecedent commitments to the insubstantivist view that
there is little to explain in the first place. I argue that minimalist theories are derived from an implausible form of explanatory conservatism. This result suggests the need for a more substantive theory of a wide array of alethic and semantic phenomena. Some of these phenomena are cognitive processes—a claim that runs counter to the traditional regard of cognition as being orthogonal to the explanation of the facts involving truth. With a pair of determination arguments for the thesis that truth is cognitively mediated, I show that this traditional disregard is a mistake. According to this thesis, cognitive processes directly co-determine the truth-values of truth-bearers. To elaborate on the nature of those processes, which include focal adjustments of attention, selection, scanning, scope, scale, perspective, and viewpoint, I invoke some of the theoretical constructs of cognitive grammar. Particular emphasis is given to judgment, which is a special case of the more general ability of comparison. Moreover, the oft-held view that theories like cognitive grammar or cognitive semantics are highly compatible with deflationary theories of truth is, I think, a mistake. After defending the correspondence theory of truth against several objections, some of the constructs from cognitive grammar are then parlayed into a version of that theory which characterizes truth as a multi-place structural relation of maximal veridicality. Accordingly, truth holds of fully sanctioned constructions whose semantic values are judgments. In a Kantian fashion, judgments are characterized as assemblies of cognitive models about situations that are conceived according to speakers’ cognitively structured ontological categories. All told, this suggests a happy confluence of cognitive linguistics and inflationary alethic theories.
Chapter One: Cognitive Processes and Truth-values

If I am right, the idea that there can be an account of truth which has ‘nothing to do with the mental’ is an illusion.

Hilary Putnam (1988: xiv)

0. Abstract

Truth-theorists typically exclude from their explanations of the so-called facts involving truth facts about the relationship of cognition to truth. ¹ In this chapter, I give reason for thinking that cognition is not orthogonal to the explanation of the facts involving truth by arguing for the thesis that truth is cognitively modulated. According to this thesis, if the facts about how the world is are held constant, then the facts involving cognitive processes fix the facts involving the truth-values of truth-bearers. If this thesis

¹ To adapt a difficult-but-clarificatory leaf from Quine (1940: 24), I adopt the following notational conventions (with few exceptions). Normal text is used when discussing what is meant, e.g., as when writing about La Jolla; italicization is used when discussing the expressions used in discussing what is meant, e.g., as when writing about the expression La Jolla is sometimes foggy, which is about La Jolla and which has La Jolla as a component part; and ‘single quotes’ are used when mentioning the discussion of expressions used in discussing what is meant, e.g., as when mentioning ‘La Jolla’ is trisyllabic, which is about La Jolla and has ‘La Jolla’ as a component part. In other words, to mention La Jolla, I use La Jolla or a synonym, and to mention La Jolla I use ‘La Jolla’ or a synonym; ‘La Jolla’ is trisyllabic and has one pair of quotation marks, La Jolla is trisyllabic and has no quotation marks, and La Jolla is sometimes foggy. Following the concepts and categorization literature, SMALL CAPS are used for concepts (e.g., the concept of La Jolla is LA JOLLA, the concept of LA JOLLA is the concept of the concept of La Jolla, and so on); emphasis is underscored; and terms in bold are technical terms singled out for explicit characterization or definition. Lastly, I use square brackets to either interject something into a quote (e.g., ‘[…]’), or else to explicitly pick out expressions (semantic/phonological pairings) that have achieved unit status (e.g., ‘[sem[CONCEPT]/phon[concept]]’)) per cognitive grammar.
is correct, then the traditional disregard of cognitive processes in the explanation of the facts involving truth is a mistake.

1. Is cognition orthogonal to the explanation of the facts involving truth?

1.1. Traditional disregard

Recent work on truth has taken the overarching theoretical endeavor to be explanation—i.e., the practice of taking some set of data \( \{\varphi_1, \ldots, \varphi_n\} \) as given, followed by an attempt to illuminate its nature, etiology, relations to other facts or patterns, or other such desiderata.\(^2\) The metric for theoretical success or failure of any candidate theory of truth is therefore explanatory adequacy—i.e., how well the explanations and analyses illuminate the so-called facts involving truth.\(^3\)

Plainly though, what counts as an adequate illumination of the facts involving truth depends on what one initially takes the explanandum to be. For example, cognition has been traditionally regarded as orthogonal to the explanation of truth. Truth has also

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\(^2\) See, e.g., Wright (1992: 12–15); Rodriguez-Pereyra (2005: 17 ff.); O’Connor (1975: 17); Leeds (1978: 116 ff); McFetridge (1990: 42); Liggins (2005: 105 ff.); Kitcher (2002); Horwich (1990: 22); Dodd (2002: 281); David (1994: 4). The term explanation is used broadly to refer to any kind of network of ratiocinative operations on linguistically- or graphically-expressed representations that involves at least one inference about how or why an explanandum is a consequence—material or otherwise—of antecedent conditions. Experimental confirmation (e.g., Tomasello, 2003) is certainly welcome, but is not required for the plausibility of explanations in this sense (see also Langacker, 2003b: 258)

\(^3\) The location is from Horwich (1990), whom I will follow in his use of the terms facts and facts involving truth as a colloquial way of designating the data sets comprising the explananda. My use of fact-talk, which is roughly interchangeable with that which is to be explained, is not intended to bear any entitlements or commitments to a metaphysics of facthood.
been traditionally regarded as orthogonal to the explanation of cognition. Together, these ways of regarding the explanatory relationship between cognition and truth jointly imply that the relationship between them is one of mutual irrelevance. But to say that the relationship is one of mutual irrelevance is, effectively, just to say that there is no relationship between the facts involving truth and the facts involving cognition as traditionally regarded. And where no relationship between the explanandum and the facts involving cognition is countenanced, cognition need not be addressed for an explanation to count as adequate illumination of the facts involving truth.

1.2. Intersections and lacunae in philosophy and cognitive science

1.2.1. Agenda. Truth has made for a divisive issue both within and between philosophy and cognitive science. But rather than treating the traditional disregard of cognition in explaining the facts involving truth as a well-motivated compartmentalization or explanatory division of labor, I propose that we instead reframe it as revealing one of two lacunae: one in the explanation of truth in philosophy, and the other in the explanation of cognition in cognitive science. The first lacuna occurs because philosophers have generally failed to account for the contributions that cognition and cognitive processes make to truths and other veridical linguistic constructions. The second lacuna occurs because cognitive scientists have thus far failed to underpin their views with an adequate theory of truth and other alethic phenomena.

This dissertation is a preliminary report on the prospects for redressing these two lacunae—particularly the first. It is therefore a critical and programmatic prolegomena to an eventual theory that takes seriously the idea that the study of truth and other alethic
phenomena must be situated against an extensive background understanding about cognition. An elaboration and further defense of this motivating idea might constitute a platform for providing healthy cross-pollination of philosophy and cognitive science that is both synoptic and constructive as well as analytic, and that redresses these two lacunae.

1.2.2. Cognitive linguistics. For my part, I am generally sympathetic to many of the explanations developed under the rubric of cognitive linguistics, and so find this framework to be a promising way by which to develop an account of the interface of truth and cognition. Initially described—particularly on the East Coast—as the wooly-headed, sun-kissed California School of linguistics and cognitive science (with UC San Diego, Stanford, and UC Berkeley as its three epicenters), cognitive linguistics has emerged over the last quarter century as an important, insightful, and inspiring framework, of international repute, for understanding an array of mental and linguistic phenomena across a wide variety of natural languages. A main reason for this emergence is cognitive grammar, which is one of the most precise, careful, and theoretically rigorous theories within the cognitive linguistics framework. Created by Ronald Langacker and officially ushered in with the publication of his two-volume Foundations of Cognitive Grammar (1987, 1991), cognitive grammar is a theory of language and linguistic

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4 In speaking of cognition, I am not indicating that such an eventual theory will or should be a type of (sophisticated) epistemic theory in the Dewey-Rorty-Putnam tradition, i.e., in the sense of identifying truth with some kind of (idealization of) warranted assertibility. I do not rule out, however, that such an eventual theory will or should account for truth and other alethic phenomena within a broader epistemic context.

5 Many of its ideas and constructs, however, have their roots in certain traditional philosophical views of meaning, thought, and representation—e.g., Locke’s ideational theory of meaning and Wittgenstein’s remarks on use, Kant’s views on conceptual structure and organization, and Quine’s views on indeterminacy—even Heidegger’s views on representation and praxis.
phenomena that emphasizes its cognitive underpinning. It is of particular interest here, and will hopefully be shown to provide a corrective for the first lacuna.

In emphasizing the cognitive basis of language, cognitive grammarians assume inter alia that making a strong claim to psychological reality is a fundamental desideratum on a theory of language, and consequently that this desideratum is a central measure of explanatory adequacy. Here is an argument motivating that assumption. Language is symbolic by its very nature, and is symbolic only if it is meaningful (Langacker, 1986a, 1987, 1988b). Meaning is a mental phenomenon by its very nature, and is a necessary condition on being a linguistic phenomenon. So, a theory of language should be constrained by, and develop within the context of, what is known about mental phenomena. Of any two given theories of language, the one that is more

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6 The first conjunct of this premise harks from the contentious ideational theory of meaning. See, e.g., de Saussure (1966: 65–6); Langacker, (1988b, 2000); Jackendoff (2002); Chomsky (1959); Chafe (1970); Anderson (1933); but see also Putnam (1973, 1975); Patterson (2003); Lewis (1970); Hacking (1975); Devitt (2006); Alston (1970). Quine, in his essay The problem of meaning in linguistics, also painted a grim view of Lockean attempts to found semantics on the relationship(s) between words and ideas: there is considerable agreement among modern linguists that the idea of an idea, the idea of the mental counterpart of a linguistic form, is worse than worthless for linguistic science. I think the behaviorists are right in holding that talk of ideas is bad business even for psychology. The evil of the IDEA idea is that its use, like the appeal in Molière to a ‘virtus dormitiva’, engenders the illusion of having explained something. And the illusion is increaded by the fact that things wind up in a vague enough state to insure a certain stability, or freedom from further progress (1953/1999: 48). Quine surely had a certain idea of an idea in mind, but unfortunately neither mentioned which one in this essay, nor gave reasons for thinking that the explanations involving talk of such an idea are illusory.

7 Perhaps it goes without saying; the meaning of meaning intended here is the sense appropriate to linguistics and the characterization of grammars—what is sometimes called conventional meaning, as opposed to natural meaning or indication (as in, e.g., smoke means fire). When I prompt a young child, who is just beginning to learn language, to make a gurgle noise by asking what does a fountain say?, I am not speaking literally; for the fountain does not say or express anything. It merely emits an audible noise—a noise which is not paired with any conceptualization or meaning (see chapter two).
consistent with what is known about mental phenomena is the more explanatorily adequate, ceteris paribus. So, a theory of language should aim to make a strong claim to psychological reality.

This argument demonstrates that the assumption is well motivated (cf. Devitt, 2006). It also implicitly suggests that an account of semantics pertaining to the linguistic representation of cognitive structure and organization is at the very heart of cognitive grammar. With cognitive linguistics, I presuppose that the cognitive abilities governing language and linguistic representation are in principle the same as those governing other aspects of psychological phenomena, such as attention, perception, and knowledge of sensorimotor routines. Accordingly, it stands to reason that language should not be analyzed as an autonomous cognitive faculty or linguiformal module separable from non-linguistic abilities; in stronger formulations, this presumption entails the full interpenetrability of language and cognition.

Due to the extent of its nuances and systematicity, I can only afford to give a highly selective explication of cognitive grammar; nor can I exhaustively discuss its implications for the range of philosophical views on truth and other alethic phenomena. Nevertheless, I do indicate some of the main themes, constructs, and arguments needed for constructing a theory that is suitable to cognitive linguistics while trying to maintain some semblance of philosophical rigor and other such standards of self-criticism. In any case, philosophical discourse stands to gain simply in virtue of taking an exciting direction in exploring hitherto uncharted territory.
2. **Fixing the facts about truth-values**

2.1. **Presuppositions**

The conviction that cognition need not be addressed for an explanation of the facts involving truth to count as adequate is, I think, mistaken. Prima facie, there at least appears to be a relationship of presupposition between the study of truth and the study of cognition. For instance, whether truth-theorists explain truth in terms of a property predicated of some statement $p$ or $q$, as a kind of anaphoric operator on a sentence $\sigma$, etc., such explanatory practices only make sense to the extent that the nature of $p$ and $q$ can be taken for granted, or that questions about $p$ and $q$ can be bracketed for later or for others to deal with. Hence, the study of truth depends on being able to presuppose an analysis of the nature of truth-bearing or even truth-apt content, broadly understood (the usual candidates being items of thought, language, representation, information, judgment, etc.), and of cognition more generally.\(^8\) And since all types of truth-apt content inexorably have the imprint of cognitive structure, it follows that a comprehensive explanation of truth antecedently presupposes being able to understand the imprint that cognitive structure has on such content, and on our category of truths more generally. Hence, the relationship of cognition to the study of truth is not irrelevant.

The relationship of presupposition also goes the other direction: the study of cognition presupposes an analysis of truth. Much of cognition is “shaped” by the environments in which it occurs, and the explanation of how this occurs depends, in part,\(^8\) Can we even make sense of the alternative? Trying to study truth in a way that is always and absolutely independent of truth-bearing content would be a bit like trying to explain or analyze wetness independent of liquids. Indeed, in conceiving of truth, it seems that, necessarily, we incur presuppositions about what it is the truth of.
on their being coupled together in certain ways. The relations constituting such a coupling might be variably analyzed (e.g., mapping, tracking, grounding); but, of those cognitive states that are representational, all such relations will be at least partially structure-preserving (without which it would be well-nigh impossible to understand how such ‘shaping’ could even be possible). Where the class of structure-preserving relations is simply the class of veridical ones, and given that any comprehensive explanation of veridicality itself antecedently presupposes being able to understand truth itself (i.e., in at least the sense of maximum veridicality), then the relationship of truth to the study of cognition is not irrelevant.

Of course, one might dispute that a relationship of presupposition between the studies of truth and cognition amounts to anything like a noteworthy relationship between them requiring explanation. And indeed, to be fair, it must be acknowledged that the relationship between truth and cognition is hardly obvious. In my view, however, that relationship becomes far less obvious when truth is treated as a purely linguistic phenomenon and linguistic phenomena are treated as isolable from cognition.

2.2. 

*Suppositions: indirect determination*

In order to further establish that cognition is not orthogonal to the explanation of the facts involving truth, the rest of this chapter presents and defends an argument for the conclusion that cognitive processes indirectly determine the truth-values of truth-bearers.\(^9\)

Here is that argument.

\(^9\) Occasionally, I use the determiner *the*, e.g., as in the full nominal *the determinant of x*. This usage should not be interpreted as *the only*. Where uniqueness and exclusivity are intended, I will use *the only*. 
Determination argument A: cognitive processes and truth-values

(1) There are at least two determinants of the truth-value of any given truth-bearer: its meaning and how the world is.
(2) Cognitive processes determine meaning.
∴ (3) Cognitive processes indirectly determine the truth-value of any given truth-bearer.

The determination argument A is very simple—a valid, two-premise syllogism. The deduction turns on the transitivity of the relation picked out by being a determinant of, in the straightforward sense that if $x$ determines $y$ and $y$ determines $z$, then $x$ determines $z$. For example, the truth-value of a sentence like monkeys fly is co-determined by both the meaning of that sentence and the locomotive practices of monkeys, and any determinant of either what that sentence means or what monkeys do will also be a determinant of the truth-value of the sentence monkeys fly. Since inferences based on the transitivity of determination relations are generally unproblematic, the validity of the determination argument A is generally unassailable. And it is particularly unassailable to the extent that we understand the relational property picked out by being a determinant of in this particular context.

Determination in this particular context will be understood in terms of fixing the facts: if $x$ determines $y$, then facts about $y$ are fixed by the facts about $x$. Hence, if meaning and how the world is are the determinants of truth-values, then fixing the facts about each of them fixes the facts about truth-values (excepting the case where there are additional determinants to countenance). Assuming there are no such further determinants of meanings, then cognitive processes co-determine truth-values in the
sense that they (partially) fix the facts about truth-values (relative to whether the facts about how the world is are held constant).

*Fixing the facts* is helpful in the context of talking about determination because it helps us to understand the sense in which DETERMINATION is an explanatory notion. Given the facts involving truth, we can explain them by appealing to how the facts about meaning and how the world is, plus whatever determines them, fix the facts involving truth. Alternatively, *being a determinant of* can be analyzed using simple notions like DIFFERENCE, VARIATION, or CHANGE, such that changes in truth-values entail, effect, or otherwise covary with changes in meaning or how the world is. Hence, were the truth-value of the sentence *the United States invaded Iraq* somehow to change from true to something else, then if truth-values are determined according to premise (1), then there must be some change in the meaning of that sentence (assuming that how the world is stays constant); and, a fortiori, there must be some change in the cognitive processes that determine what the sentence *the United States invaded Iraq* means, given that only if the facts involving its determinants are fixed are the facts involving meaning fixed. To be clear, it does not follow that changes in cognitive processes entail, effect, or otherwise covary with changes in truth-values. For example, the alternation between active and passive constructions in sentences, as in

(4a) The United States invaded Iraq
(b) Iraq was invaded by the United States

involves changes in cognitive processes that determine their respective meanings (see chapter two), though the truth-value does not vary even if the cognitive processes that
determine their respective meanings do. Furthermore, the analysis of being a determinant of in terms of difference, variation, or change should not necessarily be interpreted causally. For example, the facts about water are determined by, inter alia, the facts about H₂O, but not causally determined since H₂O in no sense causes water. Determination, unlike causation, can relate entities across levels of nature or organization.

One might try to specify determination in terms of mere counterfactual dependence, whereby x determines y just in case the existence of y depends on the existence of x and y would not depend on x had the facts about x been otherwise. Yet, determination should be distinguished from dependence—counterfactual or otherwise—since the former does not, but the latter does, involve existential or other such ontic commitments. For example, you and I depend for our existence on our respective sets of parents, but our respective sets of parents do not determine you or I since the facts about your parents and mine do not fix the facts about either you or me. To give another example, amplitudes do not always determine a unique tone since many tones can sound at the same amplitude, though tones depend for their existence on amplitudes (Yoshimi, 2007: 124).

2.3. Truth is cognitively modulated

The argument makes explicit that the relational property of determination is not one of mediation, since mediation is a relationship of direct determination apropos for first-order determinants—in the case of premise (1), at least meaning and how the world is. Hence, cognitive processes do not mediate the truth-value of any given truth-bearer; the sense in which they are the determinants of truth-values is the sense of being a
determinant, once removed. Hence, we will say that cognitive processes modulate the truth-value of any given truth-bearer, since modulation is a relationship of indirect determination. Consequently, and on the further assumption that the truth-values modulated by cognitive processes include truth itself, the conclusion of the determination argument \( A \) entails the following thesis.

\[ \therefore (cm) \quad \text{Truth is cognitively modulated.} \]

Generally speaking, truth-theorists are not unaccustomed to thinking about truths in terms of cognition and cognitive processes—but not so for truth itself. The distinction between truth and truths is simply the difference between, say, a feature like being true and a representation like being a truth-apt content that bears that feature. But if truth is cognitively modulated—i.e., if the facts involving truth involve the facts about cognitive processes—then the determination argument \( A \) is one simple and straightforward inference as to why theories of truth must be constructed with theories of cognition in mind if they are to issue comprehensively adequate explanations. This is a potentially radical consequence that indicates the need for a dramatic change in the orientation and trajectory of theories of truth.\(^{10}\)

2.4. \textit{Truth is cognitively mediated}

Cognitive grammar provides a way of revising the determination argument \( A \) such that truth-values are shown to be not just modulated by cognitive processes, but

\(^{10}\) Of course, this is not to say that every fact involving truth is equally important or relevant. At the end of chapter four, I briefly discuss data prioritization.
directly co-determined by them. Hence, whereas the determination argument $A$ indicates the need for a dramatic change in the orientation and trajectory of theories of truth, cognitive grammar ratchets up the urgency.

2.4.1. Meaning as conceptualization. Whereas Locke gave pride of place to the theoretical construct IDEA in his view of language and thought, cognitive grammarians give pride of place to that of meaning. Meaning, it is said, is the essence of all linguistic phenomena, and so is the most fundamental factor by which explanation and analysis of language and thought proceeds. Actually, the difference here is less interesting than initially appears (if it appears at all): a core axiom of the theory involves the reductive identification of meaning with conceptualization—i.e., meaning just is conceptualization. Of course, this raises a question of the relationship between Lockean IDEAS versus CONCEPTUALIZATIONS as understood in cognitive grammar; but I take it that there is sufficient conceptual overlap between these two constructs to render the question moot. Both issue from the ideational tradition of the British empiricists (as opposed to, e.g., behavioral or referential), in which both ideas and meanings are by nature mental phenomena.\footnote{Prinz (2004); Langacker (1988b); Hacking (1975); Alston (1970).}

For cognitive grammarians, the term conceptualization broadly encompasses various kinds of stable configurations of mental experience, and of various magnitudes of complexity. For instance, it includes everything from simple emotions and other hedonically-valenced experiences, procedural knowledge and knowledge of sensorimotor contingencies, kinesthetic and proprioceptive knowledge, and auditory or olfactory
percepts. Also encompassed are mental experiences ranging from the very rudimentary concrete representations of a child learning to categorize objects in its environment, the abstract concepts involved in abstract mathematical theorems—even the rich memories of having navigated some sociopolitical affair, and many more kinds of mental experiences besides.

2.4.2. The dynamicity of meaning: conceptualization as cognitive processing.

The term conceptualization is sometimes treated as referring to a fixed or static type of entity—sometimes eternally so. The same holds of meaning and idea no less, and of the nominal expressions naming the entities in which they factor, e.g., sentence, concept, thought, reason. One reason for this is due to the theoretical and methodological complications that are introduced once the nature of conceptualization is understood as dynamic or processual; conversely, semantic analysis and description is made simpler and more tractable by treating conceptualizations as fixed or static. Such simplifying assumptions are sometimes necessary in order to conduct research; however, as cognitive grammarians have pointed out, it should be recognized that this reificatory practice is primarily motivated by communicative ease and expository and explanatory convenience. After all, thoughts occur in time; sentences take time to produce, process, and comprehend; reasons and inferences are “movements” of thought with temporal structure; meanings change over time; ideas evolve; and so forth. Time is a fundamental medium or dimension in which each of these entities occurs. And conceptualization is no different from any other cognitive event; it is temporally extended, in at least the sense that it occurs over a span of processing time (Langacker, 1987: 100, 1991: 150). Hence,
conceptualizations are inherently not static, but evolve and develop. Rather, they inhere in cognitive processing.

To see that semantic structures are not static, consider two stock examples given by Langacker (1986a: 7, 2005: 186 ff, forthcoming): the semantic values of expressions like go, away, and gone, and the meanings of quantifiers. With regard to the former, consider expressions such as,

(5a) Here we go.
(b) She was already gone by the time he woke up.
(c) The Midwest is thousands of miles away.

In (5a), the term go involves a conceptualization of the process by which one conceived entity—a trajector (tr)—moves away from another—a landmark (lm)—in space and time. The relationship between trajector and landmark is one between the primary (i.e., subject) and secondary (i.e., object) focal participants in a profiled relationship. In (5b), the term gone also involves much the same array of conceptualizations pertaining to the process by which a trajector moves away from a landmark in space and time; the main difference is that the profiled relationship for gone is the endpoint of this process, and the process by which the trajector achieves the final state of having moved away is conceptually backgrounded. Interestingly, both gone and away in (5b) and (5c) profile the same final portion of this conceptualized process. The difference between them is that the conceptualizations involved in away likewise depend on the conceived absence of this process through time. The diagram in figure 1 below depicts these relationships more explicitly.
With regard to the latter, the meanings of quantifiers also inherently involve dynamicity, as shown in figure 2 below. For example, the conceptualization of *any* involves scanning through a conceived series of entities and randomly selecting or attending to a particular one; the conceptualization of *each* involves scanning through a conceived series of entities and selecting or attending to them one after another.
These two examples enjoy a much more detailed analysis elsewhere (Langacker, 2005, 2007); here, they are cited only to exemplify that conceptualization is not a static entity, and as such can be explicated in terms of the cognitive processing.
2.4.3. **Direct determination.** Given the axiom that reductively identifies meaning with conceptualization, it seems that the attainability of a proper characterization of meaning must eventually be explicated in dynamic or processual terms in order to be ultimately satisfactory. Consequently, meaning must eventually be explicated in terms of cognitive processes, and—as with any cognitive process or cognitive event—ultimately, in terms of the occurrence of the dynamic patterns of neural activity instantiating it.\(^\text{12}\)

This view has serious revisionary consequences for the determination argument \(A\) given in §2.2. If meaning just is conceptualization, where conceptualization is explicated in dynamic or processual terms, then cognitive processes are not the determinants of meaning. It therefore follows that truth is not cognitively modulated since cognitive processes are not the indirect determinants of truth-values. On this view, meaning just is cognitive processing—i.e., the relation between them is one of identity, not determination. It therefore follows that truth-values are directly mediated by cognitive processes. Consequently, cognitive grammar requires the following revision to the determination argument \(A\):

**Revised determination argument \(A^\prime\): cognitive processes and truth-values**

\begin{enumerate}
\item The truth-value of any given truth-bearer has at least two determinants: its meaning and how the world is.
\item Meaning is identical with conceptualization, explicated in terms of cognitive processes.
\end{enumerate}

\(^{12}\) See, e.g., Langacker (1987a: 100); Kim (1998); Churchland (1989); Chafe (1970: 74–6). My concern here is generally with cognition, however, and not with neural activity. Given that I am not a so-called *ruthless reductionist* about the mind, I will endeavor to remain at this level of description.
Therefore, cognitive processes directly determine the truth-value of any given truth-bearer.

Therefore, truth is cognitively mediated.

The revised determination argument $A'$ suggests that truth-values are directly determined by cognitive processes, in addition to at least how the world is. It is no less valid than the determination argument $A$, and whether it is sound turns on the metaphysics of meaning—i.e., whether the axiom reductively identifying meaning with conceptualization in premise (6) is true. In any case, it should be clear that it has many of the same implications. In particular, if the facts involving truth involve the facts about cognitive processes, then it still appears that theories of truth must be constructed with theories of cognition in mind if they are to issue comprehensively adequate explanations.

3. Objections to determination arguments $A$ and $A'$ and replies

Generally, I have been suggesting that the extent to which the relationship between truth and cognition is ignored is the extent to which the traditional ways of regarding the studies of truth and cognition are misguided, assuming truth and cognition are so related. Either of the determination argument $A$ or its revision $A'$ make good on that assumption. And they do so in a way that shows philosophers’ deep-seated mistrust against all things (putatively) psychologistic, which has sharply cleaved the study of cognition from the study of truth, to be an open issue. Of course, the novelty of the theses in $(cm)$ and $(cm')$ may be such that the argument strikes some as somehow unpersuasive.
In the next few subsections, I anticipate and respond to some objections to the weaker thesis that cognitive processes partially determine truth.

3.1. Truth is not cognitively modulated since truth-values do not supervene on cognitive processes

One might try to advance the following apparently damning counterargument. If truth is cognitively modulated, then truth-values supervene on cognitive processes. But truth-values do not supervene on cognitive processes, since some truth-bearers are differentiated by their truth-values but have the same cognitive processes. For example, the sentence all black-eyed peas are peas is true on one interpretation, false on another, even if the cognitive processes determining the meaning of that sentence do not vary or are otherwise held fixed. The same might be said of sentences like either the future is in front of us, which, ceteris paribus, appears to be true when uttered by Americans but false when uttered by Aymara, here now, or the sentence during World War I, Ronald Reagan’s birth mother dropped his analog watch into the sound hole of the acoustic guitar is truth-valued in 2007 but truth-valueless circa 1918.13 By modus tollens, truth is not cognitively modulated; and since it is not modulated, it is definitely not mediated.

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13 Anthropological evidence suggests that, for sentences such as these, the Aymara do not, but Americans do, metaphorically map from source to target domain with an egocentric conception (see Núñez & Sweetser, 2006). In the other example, the sentence could have made no sense, and thus had no truth-value, because it invokes concepts that are historically sensitive (the so-called Great War was only called as World War I relative to World War II, watches were only known as analog with the advent of digitalization, etc.). This suggests that at least some truth-values of some truths are context-sensitive in the sense of being temporally indexed. Interestingly, temporally-indexed truths are not those that are true, but those that literally come to be (alt. become) true. Accordingly, this suggests that if truth is a property, then there are at least two such properties: being true and becoming true. For example, the sentence the Earth died from
There are various ways to manage this counterargument. One could go to work on a story about indexicals, temporal markers, and other context-sensitive relativitzations to deal with such examples. Alternatively, one could go to work on the examples themselves, arguing that they are flawed precisely because it is unclear that the cognitive processes determining the meaning of these sentences can be held fixed in the first place: e.g., the cognitive processes determining the meaning of the future is in front of us cannot be identical if the sentences are differentially said by Americans versus Aymara here now. Perhaps a simpler way would be to just show that the first premise of the counterargument is false—i.e., a conditional with a true antecedent but false consequent. Specifically, truth is cognitively modulated, as the determination argument $A$ seems to establish, since truth-values are indirectly determined by cognitive processes. But while modulation involves indirect determination, determination of any order is individually insufficient to entail even the weakest kind of supervenience. Therefore, it does not follow that truth-values supervene on cognitive processes from the thesis that truth is cognitively modulated.

I have already distinguished determination from relations like dependence and causation. Additional distinctions are need for e.g., covariance and grounding. Yet, to understand further where this objection goes wrong, we need to distinguish determination from supervenience. Supervenience itself comes in a variety of formulations of varying strength, and is generally understood to be a modal relation involving covariation plus dependence between sets of properties, where dependence involves existential

emphazema might come true, in precisely the same sense that predictions about the fall of the Roman Empire became true only after the falling in question.
commitment. More specifically, a set of properties $A$ supervenes on a subvenient or base set of properties $B$ iff

$$(8) \quad \text{necessarily, for any property instance } F_i \in A, \text{ if any individual } a \text{ has } F_i \text{ at time } t, \text{ then there exists a property instance } G_i \in B \text{ such that } a \text{ has } G_i \text{ at } t, \text{ and necessarily, any individual having } G_i \text{ at } t \text{ has } F_i \text{ at } t.$$ 

According to (8), there are two conditions on supervenience, both of which hold of necessity: firstly, that sets $A$ and $B$ covary, and secondly, that a unique distribution of property instances in $A$ is fully and asymmetrically dependent on the existence of a unique distribution of property instances in $B$.

Indiscernability has always been a prominent way of capturing the root idea behind the conjunction of these two conditions. For example, it is commonly held that $A$-properties supervene on $B$-properties just in case $x$ and $y$ are indiscernible with respect to all of their $B$-properties only if $x$ and $y$ are indiscernible with respect to all of their $A$-properties. Where ‘$\equiv$’ here notates some type of indiscernibility constant, we can understand this as: $(\forall x)(\forall y)[(x =_B y) \rightarrow (x =_A y)]$. I am uncomfortable with analyzing supervenience in terms of indiscernibility, however, because it makes the analysis an epistemic analysis since DISCERNABILITY itself is an epistemic notion; and yet, what is needed is an analysis of supervenience relations that is decidedly metaphysical. Instead, and bracketing for a moment the niceties with regard to modal issues involving possible worlds, supervenience should be analyzed using simple notions like DIFFERENCE,

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14 Jaegwon Kim’s Mind in a Physical World (1998: 4–27), which summarizes his previous work, is often used as a locus classicus for the explication of these and other relations. Jeffrey Yoshimi’s (2007) more nuanced treatment makes some further distinctions (e.g., between determination and dependence) to the canonical formulation.
VARIATION, or CHANGE; the root idea can then instead be captured as: necessarily, there is no ontic difference in $A$-properties without some corresponding difference in $B$-properties; equivalently, if the $A$-properties of $x$ and $y$ supervene on the extant $B$-properties of $x$ and $y$, then as the $A$-properties vary so too do the $B$-properties.

Of course, the supervenience relation can be modified in various ways depending on need or interest. It can be strengthened by introducing the constraint that nomological relations connect $A$- and $B$-properties; and it can be weakened by relinquishing the modal operator, or either of the two conditions—covariance or asymmetric dependence. However, even if weakened in any one of these ways, supervenience is still a stronger relation than determination, since asymmetric determination is what is added to covariance plus modal and existential commitments to yield the two conditions jointly comprising (8). In other words, add existential commitment to determination and you get dependence; add covariance to dependence along with the modal operator or other possible worlds apparatuses, and you get the supervenience relation defined in (8). Hence, asymmetric determination is merely a partial determinant of weak supervenience, and it should therefore be clear where the first premise of the objection goes astray: supervenience entails asymmetric determination but since asymmetric determination does not entail supervenience, it does not follow that truth-values supervene on cognitive processes if truth is cognitively modulated. Hence, the apparently damning counterargument is merely that—appearance.

3.2. The determination argument $A$ is unpersuasive because its locutions are opaque or imprecise
It might be objected that the locutions of the determination argument $A$—e.g., meaning, how the world is, truth-bearer—are so utterly opaque or imprecise as to be useless, or that the conclusion is acceptable only to the extent that locutions like determine or cognitive processes can be robustly analyzed and thus can be shown to be more than mere catchphrases.

Truly, the argument itself involves no conceptual analysis of its locutions. But locutions like how the world is are no more vague in the determination argument $A$ than as they might function in any other argument involving conceptions of reality, or meaning, or cognition; and so, the determination argument $A$ is on equal footing with respect to any other. And in any case, its terms, such as the verb stem determine, are not poorly understood; accordingly, there is no semantic problem in comprehending what it means to say that if cognitive processes are the determinants of meanings, and meanings are the determinants of truth-values, then cognitive processes are the determinants of truth-values. But even if its terms were poorly understood, conceptual analyses of them are clearly at hand. For instance, I have already specified how to analyze the argument’s most important concept, DETERMINATION, and have also suggested that a variety of ways are also available (e.g., determination relations are sometimes given a functional specification, whereupon changes in the value of a function entail changes in its arguments). Not all of these formulations are equivalent, and some are more apt than others; yet, each demonstrates why the objection that the determination argument $A$ is unpersuasive because its locutions are opaque or imprecise is itself unpersuasive.

Furthermore, the objection actually pinpoints a virtue of the argument—not a vice—if what goes by opacity and imprecision is more charitably thought of as neutrality.
For example, the argument is neutral over what counts as the primary or proper bearer of truth. Presumably, those who admit propositions into their ontology are as free to accept or reject the conclusion that truth is cognitively modulated as are strict disquotationalists or full-blooded speech-act theorists. If one makes a commitment (as they should) on matters of truth-bearers, the argument should be adaptable so as to fit it (and if no adaptation can made with the commitment being inconsistent with one of the premises of the determination argument $A$, then so much the worse for that commitment.)

To be clear, these replies are not to say that locutions like *how the world is* or *cognitive process* stand in no need of conceptual analysis. Quite the contrary—I take this to be a serious objection. But it is a serious objection that can be dissolved with an appropriate framework or conceptual analysis; fortunately, as will be shown, cognitive linguistics goes some distance in analyzing, e.g., the nature of meaning, providing a taxonomy and a general account of what cognitive processes are, and so forth, and therefore goes some distance in dissolving the objection.

3.3. *The determination argument $A$ is valid but unsound* 

For those who dislike the thesis that truth is cognitively modulated, a more straightforward objection is that the determination argument $A$ is unsound. Fine. But then, which premise is false?

3.3.1. *Premise (1) is false.* The supposition that premise (1) is false is not necessarily a non-starter; it is, however, unlikely to be well-justified. By most accounts, premise (1) is nearly truistic, not false. Premise (1) merely tells us that the meaning of a
given truth-bearer \( x \) and how the world is are jointly sufficient conditions for that truth-bearer to have a truth-value. More schematically, we might interpret this as telling us that

\[
(9) \quad x \text{ means } p \& p \rightarrow x \text{ is true.}
\]

For example, if sentences are truth-bearers, then a sentence \( \sigma \) is true if, e.g., the meaning of \( \sigma \) is \textit{few cats are catty} and few cats are catty. Of course, one might suspect that the truistic nature of premise (1) implies that the conditional schema in (9) is a platitudinous explanatory resource, and thus fairly worthless. I concur, but think that doing so in no way impugns the truth of premise (1) or the soundness of the determination argument \( A \) more generally. One might also suspect that the inference from being truistic to being true is not necessarily a good one. Again, I concur. In select cases, that inference is not, as I myself suggest in chapter four. Yet, while it is not necessarily a good one, it is generally a good one. In this case, evidence that it is is that premise (1) is compatible with virtually all alethic theories—some of which not only begin with variations on it, but even end with it. Indeed, there is really only one type of theory incompatible with premise (1): an error-theoretic view about either truth-values or meanings. More specifically, one could reject premise (1) only if one was willing to claim either that there are no such things as truth-values—i.e., a position sometimes called \textit{nihilism about truth}—or likewise, that nothing answers to the term \textit{meaning}—what we might call \textit{meaning eliminativism}.\(^\text{15}\) Assuming they can be made stable and coherent (a big ‘if’),

\(^15\) Freidrich Nietzsche comes to mind as a possible proponent of nihilism about truth (though, his views on truth are arguably more subtle; see Williams, 2002; Anderson, 1998, 2005). Yet, deflationists do not, since they do not claim that attributions of truth-values to truth-bearers are a ubiquitous mistake. With regard to the latter, a view similar
error-theoretic views like nihilism about truth and meaning eliminativism are certainly interesting positions; but they are sufficiently heady as to not have attracted (m)any serious adherents. Hence, the only type of theory incompatible with premise (1) is one that is little more than a dim possibility. If we leave such dim possibilities aside, then we can note that premise (1) is not just truistic, but true.

3.3.2. **Premise (2) is false.** One might suppose premise (2) to be false. Indeed, premise (2)—being the only candidate left—must be shown false if the objection from unsoundness is to have any teeth. In the rest of this subsection, I suggest three ways in which one might try to show that premise (2) is false—all of which are unpersuasive.

Firstly, one might argue that premise (2), and certainly premise (6), begs the question against semantic externalists. **Semantic internalism** involves the thesis that meanings are fully determined by speakers’ diachronic physical constitution considered in isolation from any causal relations to the environment. The thesis itself is often framed more strongly in terms of supervenience: meanings supervene on the intrinsic and non-relational physical properties of speakers. **Semantic externalism,** which is often summed up by Putnam’s (1973: 704) slogan ‘meaning’ ain’t just in the head, involves the denial of internalism. Equivalently, the identification and individuation of meanings depend, in

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16 If the argument includes conclusion (cm), then might not one suppose that (3)—treated as a premise—is the joker? No. The inference from (3) to (cm) is unassailable, both since the latter is merely a paraphrase and since the further assumption that the truth-values modulated by cognitive processes include truth itself is trivial. And since (3) is validly inferred from premises (1) and (2), then it is true if they are. Hence, the real issue is whether these latter two premises are false, not (3).
part or at least on occasion, on causal or other extrinsic relations to the world. Or, in *supervenience*-terms, meanings fail to supervene on the intrinsic and non-relational physical properties of speakers since meanings can vary without variation in those properties and/or can vary with change in the environment.

A problem with this objection is that being question-begging is at best a reliable guide to—but does not entail—falsity; hence, it is unclear how the determination argument $A$ is unsound by arguing simply that premises (2) and (6) beg the question. Moreover, it is not the case that premise (2) and (6) beg the question against semantic externalists; for whether or not proponents of the determination argument $A$ are ultimately sympathetic with semantic internalism, the argument itself does not assume any such thesis. In particular, premise (2) involves no subclaims—either implicitly or explicitly—about supervenience (as shown in §2.2 and §3), nor about whether variance in something other than cognitive processes may also determine meaning. Therefore, one can consistently assert premise (2) and the denial of the thesis that meanings supervene of the intrinsic and non-relational physical properties of speakers. Therefore, premise (2) does not assume any form of semantic internalism and this objection is unpersuasive: the determination argument $A$ cannot be shown to be unsound by arguing thus.

Premise (6), however, is trickier, since it would seem to be the crowning statement of semantic internalism if anything is. Yet, it too neither entails the denial that meaning is fully determined by speakers’ diachronic physical constitution considered in isolation from any causal relations to the environment, nor that meanings supervene exclusively on the intrinsic and non-relational physical properties of speakers. Langacker, for instance, took care to comment on just this point.
Cognitive linguists firmly believe in reality, however much the talk about mental constructs and fictive entities. Its basic philosophical stance is experiential realism, and one of its central notion is EMBODIMENT. There is a real world. Unavoidably, we inhabit it. As a species, we have evolved to cope with it successfully. As individuals, we develop to cope with it successfully. Our existence and interaction with world is grounded in our bodies. Our brains are physical organs embedded in our bodies, and our minds reside in the activity of our brains. All facets of the mental worlds we construct derive ultimately from our embodied experience as physical creatures in the real world. A primary goal of cognitive linguistics is to spell out the details of how this happens. (Langacker, 1999: 101)

Langacker’s caveat bucks the attempt to saddle cognitive linguistics with solipsistic implications or caricatures of it as being radically anti-realist or idealist. If meaning is conceptualization, explicated as cognitive processing, then meaning is grounded in bodily interaction with the world insofar as cognitive processing is. Of course, this is not to say that GROUNDING or EMBODIMENT are clear and unconfused concepts; indeed, quite the contrary—the analysis of these concepts is badly impoverished (Wright, forthcoming). Nevertheless, what is clear is that grounding is conceived of as relation, which relates, e.g., meaning and embodied experience of the physical world. Given such a relation, then it appears that one is not commitment by their endorsement of premise (6) to the claim that meaning is fully determined by speakers’ diachronic physical constitution considered in isolation from the environment. Hence, neither premise (2) nor (6) antecedently involves a commitment to semantic internalism, and does not otherwise beg the question against semantic externalism. Those debates are simply further issues.

Secondly, one might instead argue that premise (2) of the determination argument A is decidedly unrealistic: i.e., reality determines the meanings that co-
determine truth-values. Such arguments are often advanced by alethic realists, metaphysical realists, and truth-maker theorists in particular (i.e., those who defend the view that there exist entities that make truths true). This route to showing that premise (2) is false is almost certainly a non-starter.

But before explaining why, we should be clear that this second way of advancing the objection is independent of endorsing or advancing the truth-conditional theory of meaning, since one can suppose that reality determines the meanings that co-determine truth-values of a sentence \( \sigma \) without supposing that the meaning of \( \sigma \) is the set of conditions under which \( \sigma \) is true. The view was popularized by Donald Davidson (1967) during his earlier years, who is generally credited with being its chief architect.\(^{17}\) Finding \textsc{truth} to be transparent but \textsc{meaning} to be messy, Davidson hypothesized that a Tarski-style theory of truth might serve as, and serve to impose some structure on, a theory of

\(^{17}\) Davidson is sometimes said to have “rediscovered” the Fregean idea that a speaker understands the meaning of a sentence only if she knows the conditions under which it would be true. And indeed, Gottlob Frege is sometimes interpreted as a chief progenitor of this view; insofar as the \textit{Begriffsschrift} is frequently taken to have been pregnant with the root idea motivating it; as far as I know, however, it was not made fully explicit until the \textit{Tractatus Logico-Philosophicus: To understand a proposition means to know what is the case if it is true} [\textit{Einen Satz verstehen, heißt, wissen was der Fall ist, wenn er wahr ist}] (Wittgenstein, 1921/1974: §4.024). Bertrand Russell and other logical atomists, as well as Charles Ogden and Frank Ramsey, are also sometimes cited as its other founding fathers. Yet, Davidson’s “rediscovery” was made possible by—and was the natural progression of—the view of semantics ensconced by the logical positivists and their heirs—perhaps little surprise given how influential Ludwig Wittgenstein’s brand of logical atomism had been on Moritz Schlick, William Charles Morris, Alfred Tarski, Rudolph Carnap, Friedrich Waismann, Gustav Bergmann, and the rest of the Vienna Circle. Indeed, according to Davidson, what ‘\textit{turned him around}’ was Quine’s seminar on logical positivism, which Davidson took as a first-year graduate student at Harvard in the late 1930s. Quine, who would become Davidson’s dissertation advisor, had himself been \textit{fired up by his encounters with the Vienna Circle—Tarski and especially Carnap}—[\textit{and when [he] came back from Europe in 1933, [he] gave three lectures on Carnap on his return to Harvard, which seemed openly to espouse all of Carnap’s central doctrines}] (Davidson, 2004: 231 ff.).
meaning. Davidson surmised that instances of certain material biconditional equivalences, schematized by Tarski’s Convention T,

\[(ct) \quad \sigma \text{ is true in } L \text{ iff } p\]

are necessary (but insufficient) conditions on the sentences of a given language \(L\) meaning what they do.\(^{18}\) Having surmised that instances of \((ct)\) are necessary conditions, Davidson arrived at something like the following arch principle of the truth-conditional theory of meaning.\(^{19}\)

\[(tcm) \quad \sigma \text{ means } p \text{ in } L \text{ only if } \sigma \text{ is true in } L \text{ iff } p.\]

According to \((tcm)\), a theorist cannot specify the meaning of a sentence \(\sigma\) without at least being able to specify the particular instance of convention T that (putatively) serves to fix the conditions under which \(\sigma\) would be true. (To be clear, one need only know what would make \(\sigma\) true—not the actual truth-value of \(\sigma\).) In the right side of the conditional,

\(^{18}\) Davidson’s interest in and employment of the truth-conditional theory of meaning was, to some extent, instrumental; he exploited the Wittgensteinian idea about what must be known to understand a given proposition—namely, truth-conditions—in order to produce an a priori hypothesis about what is involved in learning a language. For example, one may not know Dutch, and therefore not know what the Dutch sentence \textit{Brentano was een Duitser} means; according to Davidson’s employment of the truth-conditional theory of meaning, one learns the meaning of \textit{Brentano was een Duitser} upon learning the conditions under which it would be true to say of Brentano that he was a German—perhaps his, e.g., birthplace, sociocultural identity, or citizenship, or, perhaps simply just Brentano’s having been a German.

\(^{19}\) I use \((tcm)\) rather than this alternative: \(\sigma\) means in \(L\) that \(p\) only if \(\sigma\) is true in \(L\) iff \(p\). The difference is the elimination of the clausal connective \textit{that}, which is eliminated so as to not unnecessarily incur controversial questions about whether meanings are propositions. I do not think that meanings are propositions (though for very different reasons than Soames, 1999), but will avoid the issue until chapter two.
where \((ct)\) is invoked as a necessary condition, \(p\) is replaceable by any sentence of \(L\) to which the term \textit{true} refers and \(\sigma\) can be replaced by the structural-descriptive name of this sentence. Mutatis mutandis, instances of \((ct)\), such as,

\[
(ctr) \quad \text{‘Holland grows tulips’ is true in English iff Holland grows tulips}, \\
(ctp) \quad \text{‘Sneeuw is wit’ is true in Dutch iff snow is white,}
\]

bear this out: mentioned sentences are true iff things are as uses (or translations) of those mentioned sentences say they are. In \((ct)\) above, the mentioned sentence on the left means something, and the sentence on the right, in virtue of being a usable version of the very same sentence, permits a way to say what the mentioned sentence says; if things are as they are expressed to be with a use of the mentioned sentence (or a translation of it)—that is, if Holland grows tulips—the mentioned sentence is true, and if things are not as they are expressed to be with a use of the mentioned sentence (or a translation of it)—that is, if Holland does not grow tulips—the mentioned sentence is not true.

In any case, it should be clear that one can maintain that reality determines the meanings that co-determine truth-values without thereby maintaining anything about what meaning is—i.e., that the meaning of \(\sigma\) is the set of conditions under which \(\sigma\) is true. For example, one can suppose that the severely unequal distribution of resources are a cause of unhappiness without thereby supposing anything about what unhappiness is. So, whether the metaphysics of meaning can be exhaustively specified in terms of what determines it, and whether reality just is a set of truth-conditions, are further questions.

Fine, but why then is this second route to showing that premise (2) is false a non-starter? For one thing, the objection that premise (2), or the determination argument \(A\)
more generally, fails to acknowledge that reality determines the meanings that co-
determine truth-values is not yet a reason for thinking that the premise is false. Indeed,
anyone endorsing premise (2) can happily concede—should they want to—that it is an
incomplete description without being rationally committed to thinking that the premise is
in any sense inaccurate. Being complete or comprehensive is not a necessary condition on
being true. For another, any such failure of acknowledgement itself fails to acknowledge
the various ways in which the term reality can be understood. Some metaphysical views,
for instance, take reality to be mind-dependent. Hence, it is well known, but bears
repeating, that metaphysical realism or similar ontological views can easily come apart
from non-epistemic, realist theories of truth.\textsuperscript{20} For example, if a realist about truth were
committed to an ontology of facts, she could still consistently aver that all facts are
irreducibly mental facts. Realists about truth such as correspondence theorists are
likewise not committed by their theory of truth to metaphysical realism, since they can
consistently be committed to any one of various types of idealism. And this is the case
regardless of whether idealism refers simply to the view that all or part of reality is
somehow mind-dependent, to the Berkeleyan views that, e.g., either the only extant
things are ideas in the mind or that to be is to be perceived (alt., perceivable), to the
Kantian view that the fundamental categories by which cognizers understand the world
are structures imposed by the mind, and so forth. Berkeley and Hume themselves held
views that are today interpreted as standing within the correspondence tradition. All the
more so for Kant, who was undoubtedly one of the main forerunners to the
correspondence theory of truth and a committed transcendental idealist.

\textsuperscript{20} See, e.g., Vision (2004); Rodriguez-Pereyra (2005); Fumerton (2002).
Furthermore, this second objection is a non-starter even if we stipulate that reality is to be understood in the usual sense of the existence of mind-independent external world. After all, to say that cognitive processes are the determinants of meaning is not to slight the contribution of reality thus understood, whether to the formation of meaning or to the possession of truth-values. To think otherwise is either (i) to assume that proponents of the determination argument $A$ are antecedently committed to the idea that the meaning of a truth-bearer is independent of or irrelevant to how the world is, or (ii) to forget that premise (1) explicitly posits reality as at least one determinant of the truth-value of any given truth-bearer. Hence, to say that cognitive processes are the determinants of meaning is consistent with the further claim that meaning has additional determinants besides cognitive processes. Indeed, the determination argument $A$ simply gives us good reason for thinking that truth is cognitively modulated; that cognition is therefore not orthogonal to the explanation of the facts involving truth, and that we should reorient our ways of constructing theories of truth in order to acknowledge that comprehensively adequate theories of truth must account for the ways in which the facts involving cognition bear on our understanding of truth.

Thirdly, one might instead argue that truth-conditions are the determinates of meanings, and cognitive processes are not. This second way of advancing the objection that premise (2) is false and hence that the determination argument $A$ is unsound requires making at least the following two assumptions. Firstly, truth-conditions and cognitive processes are mutually exclusive classes of determinants. Secondly, truth-conditions are the determinants of meanings.
The first assumption falls out of an endorsement of the **received view of semantics**—i.e., the view received from the goals and projects of the logical positivists and proponents of the **Frege-Tarski tradition** more generally. Logical positivists generally treated semantics as proceeding in tandem with ontology—bound together by relations like truth, reference, denotation, and satisfaction. On this kind of treatment, semantics is about the intentional properties of signs (and therefore not about meaning per se unless meaning is understood intentionally). Moritz Schlick (1925/1974: 40 ff.) had already taken up this view of semantics when he published his *General Theory of Knowledge [Allgemeine Erkenntnislehre]*—the same year that Charles William Morris completed his dissertation, *Symbolism and Reality* (1925/1993) under George Herbert Mead at the University of Chicago. In his more mature work, *Foundations of the Theory of Signs*, which was published in the first part of vol. 1 of the *International Encyclopedia of Unified Science* (1938: 6), Morris used this view of semantics (the study of relations between signs and the entities of which they are about) to sharply distinguish it from both syntax (the study of formal relations between signs) and pragmatics (the study of the relations between signs to interpreters).

Morris’s characterization quickly became the received view. For instance, that Alfred Tarski was working with the same characterization in mind is clear from his near-verbatim rehearsal, mutatis mutandis, of Morris’s: *semantics is* a discipline which, *loosely speaking, deals with certain relations between expressions of a language and the objects (or ‘states of affairs’) ‘referred to’ by those expressions* (1944: 336). Ironically, the newfound interest in the role of cognition in language during the so-called **cognitive revolution**—led in part by Noam Chomsky’s (1959) trenchant review of Burrhus
Skinner’s *Verbal Behavior* as a reduction ad absurdum of behaviorism—did little to dislodge the received view, given its early emphasis on formalism. The proper study of signs and expressions was still isolated from the study of the speakers who produce and comprehend them. In course then, the received view of semantics survived both the waning of logical positivism and cognitive revolution to become the dominant way of thinking.

A recent and spirited defense of the second assumption comes from Bar-On et al. (2000), based on an alternative determination argument *B* that can be reconstructed as follows.

**Determination argument B: truth-conditions and meaning**

(1’) The meaning of a given sentence and the how the world is are individually necessary and jointly sufficient for determining the truth-value of that sentence.

(10) The meaning of a sentence is at least a function from possible worlds to truth-values.

(11) Such a function is a truth-condition (as understood in intensional logic).

∴(12) Therefore, meaning must at least in part be a truth-condition.

∴(13) Therefore, a theory of meaning must be a truth-conditional theory of meaning.

This argument is an interesting and important attempt to persuade that if the study of language or linguistic structure needs a theory of meaning, it needs a truth-conditional theory of meaning. By ‘*truth-conditional theory of meaning*’ Bar-on et al. do not necessarily mean (*tcm*); at times, they seem only to mean a theory of meaning that takes meaning to be at least in part truth-conditions (2000: 5). In any case, taking meanings to be at least in part truth-conditions is consistent with the weaker claim that the
determinants of meaning are truth-conditions;\textsuperscript{21} and on the further assumption that truth-conditions and cognitive processes are mutually exclusive classes of determinants, the determination argument \( B \) would thereby establish that the determination argument \( A \) is unsound.

The alternative determination argument \( B \) suffers from some flaws that ultimately prevent it from being persuasive. For one thing, a natural way of reading \textit{’must’} in conclusion (13) is that the rejection of a truth-conditional theory of meaning is tantamount to the rejection of a theory of meaning, full stop. But then, the argument is logically valid but unsound: one or more premises must actually be false, as the conclusion (13) is. After all, it does not follow that one is committed to rejecting theories of meaning in toto if one rejects truth-conditional theories of meaning. One could reject truth-conditional theories of meaning, and instead endorse, again, meaning eliminativism or some other type of error theory of meaning. Indeed, for a theorist who systematically explains why there are no such things as the meanings of sentences about which to theorize, it would be only natural to eschew truth-conditional theories of meaning. Of course, this way of showing the conclusion in (13) to actually be false is, again, little more than a dim possibility; moreover, it might strike some as worse than the sickness it is meant to cure. Alternatively, one might instead salvage a theoretical construct \textit{meaning} whereby sentence meanings are simply reduced to anything else other than truth-conditions. One might, for instance, give a reductive analysis of sentence meanings.

\textsuperscript{21} I assume that if truth-conditions are non-exhaustive parts of meanings, then they are metaphysically distinct from meanings. So, since the relationship between them is not one of identity or co-referentiality—i.e., truth-conditions and meanings are not the same thing—then, it is more reasonable to read given Bar-On et al. as suggesting that truth-conditions are the determinants of meanings.
in terms of speaker meanings (Schiffer, 1972; Grice, 1957), conceptual or inferential role (Harman, 1982; Brandom, 1994), conceptualization (Langacker, 1987), vectors in state-space (Churchland, 1989), or pleonastic propositions (Schiffer, 2003; cf. Soames, 1999: ch. 1). On these sorts of reductive analysis, what is individually necessary and sufficient in conjunction with how the world is for determining truth-values is not meaning, but whatever else to which it is reducible.

The foregoing suggests that either sentences do not have anything that answers to the general term meaning, or else the individually necessarily conditions that determine truth-values are not sentence meanings, but whatever they can be reduced to. And yet, surely it stands to reason that the meaning of a sentence is individually necessary but insufficient for determining the truth-value of that sentence. The difference between (1) and (1') is that the former does, whereas the latter does not, leave open the question of whether there may be more than two such determinates of truth-values; either way, Bar-On et al. concur that (1') and, by implication, (1) are nearly truistic. Hence, if there is a problem with the truth of any premise, it is not premise (1'). Yet, I think that accepting it as true does much less for advocates of the determination argument B than they might suppose. For one thing, appealing to these two conditions does not establish anything about what meaning itself must be like. For another, neither do they establish that a theory of meaning must be a truth-conditional theory of meaning, since they do not entail anything about what a theory of meaning must be like; again, the endorsement of (1'), as a way of articulating what determines truth-values, is compatible with a variety of disparate semantic theories about the metaphysics of meaning. Again, it suggests little more than that, e.g., the truth-value of monkeys fly can change only if there is some
change to either the meaning of *monkeys fly* or to the locomotive practices of monkeys. Moreover, even if it were true that sentence meanings and how the world is are individually necessary and jointly sufficient to enable the determination of truth-values, premise (1’) would at most entail that truth-values must be at least in part meaning-conditional—not that meaning must at least in part be truth-conditional. So, that one can endorse premise (1’) as truistic or even true while simultaneously adopting any semantic theory that is not truth-conditional suggests that (1’) is not doing much argumentative work—at least no more than (1) in determination argument A.

Subsequently, the real load-bearing premises of the B-argument are (10) and (11). These premises are question-begging, however; for one is led to the conclusion that a theory of meaning must be a truth-conditional theory of meaning only if one already endorses both the metaphysics of possible worlds and a traditional view of meanings as conceived in intensional logic. Such views are hardly self-evident or unproblematic, and endorsements of them are not obviously warranted. So, for those with a different view about the metaphysics of meanings, there is no rational incentive to endorse both the metaphysics of possible worlds and a traditional view of meanings as conceived in

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Of course, the postulation of determination relations among different relata prompts questions about the explanatory priority between things like truth, meaning, and reality. For instance, is it legitimate to simply read off the nature of reality from our true sentences—e.g., is it the case that whether God is a woman depends on whether *God is a woman* is a true sentence that means what it does according to our best theology? The foregoing suggests that truth-values are meaning-conditional, and not that meaning is truth-conditional. Hence, whether the meaning of the sentence *Kant wore a ponytail* is determined by what would need to be the case for it to be true of Kant to say that he wore a ponytail turns on whether meanings are at least in part truth-conditions. Accepting that they are entails accepting that truth and meaning are co-determined by each other. Whether this is acceptable is an open question, and as is the question whether it precludes an explanatory prioritization of TRUTH over MEANING, where the former represents a substantive property with a significant explanatory role to play in semantic theorizing.
intensional logic, and thus no rational incentive as of yet to find the determination argument \( A \) unpersuasive. To better see that premises (10) and (11) are question-begging, consider a further premise,

(14) The meaning of a sentence is at least in part a truth-condition (as conceived in intensional logic), where a *truth-condition* is defined as a function from possible worlds to truth-values.

Premise (14) is a straightforward paraphrase of the conjunction of (10) and (11), and is jointly entailed by them. Yet, opponents of the determination argument \( B \) would surely reject (14), since it stipulates that meaning is at least in part truth-conditional. In rejecting (14), one is also logically compelled to reject the conjunction of (10) and (11). Of course, whether or not opponents of the determination argument \( B \) should reject any stipulation that meaning is at least in part truth-conditional is a further question. For my part, I think such rejections are not unjustified, since (i) there are problems with the very concept of a truth-condition, and (ii) there are viable alternative constructs of meaning that do not invoke truth-conditions.

Unfortunately for it, proponents of truth-conditions as the determinants of meaning bear the onus of solving a very difficult, general problem: how to identify and individuate truth-conditions in a way that is informative and not ad hoc. At a more general characterization that does not presuppose intensional logic, *truth-conditions* are theoretical posits characterized as what obtains when a truth-bearer has the value true, what must be the case for it to have that value, the set of conditions under which a given sentence \( \sigma \) is true, or so forth. But for any given truth-bearer, what conditions are those? This question is a three part question: (i) in part a practical question about how precisely
to specify truth-conditions, (ii) in part a normative question about what our criteria should be for inclusion or exclusion in the set of truth-conditions of $\sigma$, and (iii) in part a rhetorical question about why the problem of how to identify and individuate truth-conditions can have no satisfactory solution. For any given truth, there are an indeterminate multitude of things that obtain, or that are and must be the case, which are accorded various degrees of relevance and prominence. Consider some $\sigma$, such as *global warming is a real phenomenon*. Suppose—pace the received view of semantics—that the mass noun *global warming* refers to the unbounded episode of global warming, and the extension of the predicate *is a real phenomenon* is the set of real phenomena. Subsequently, one way of notating what obtains when *global warming is a real phenomenon* is true is with an ordered pair (global warming, \{x: x is a real phenomenon\}), such that *global warming is a real phenomenon* is true iff the referent of *global warming* can take the value of $x$ in the construction $x$ *is a real phenomenon*. But since this is only helpful if an explication of subject and predicate terms is antecedently given, the truth-conditional approach is no help in actually giving them. For neither the meaning nor the truth-conditions of a given sentence $\sigma$ can be redundantly inferred from the morphosyntactic structure of the sentence itself, since unenumerably many sentences are associated with or report some meaning other than what can be read off of such structure. Sentences involving idioms (e.g., *kick the bucket*) and polysemous terms (e.g., *fit*) are an obvious example. Alternatively, another way notating what obtains or what must be the case would be to just write out the truth-conditions themselves in a language one understands; we might trivially begin with the reality of global warming. But what condition is that? Plainly, it is the condition under which children have miniature globes
in their rooms that are illuminated by light bulbs but which overheat if left on too long. Less facetiously, also plausible is that the warmed entity in question—say, Earth—is undergoing an increase in greenhouse gas emissions, though it may instead be the diminishing presence of a stratospheric ozone layer, or maybe the melting of the polar icecaps, or some other such condition, or all of them at once, or something else altogether.

If the problem of identifying and individuating truth-conditions is a problem for sentences like *global warming is a real phenomenon*, it is starkened for sentences that are less interpretable. Consider, e.g., *Barbarella took a sip off the coofu*. Plainly unhelpful is the suggestion that the truth-conditions for this sentence is that Barbarella took a sip off the coofu Barbarella’s having taken a sip off the coofu. Whereupon the right-hand side of the T-schema instance is the condition under which the mentioned sentence on the left means what it does, then if Barbarella took a sip off the coofu, then *Barbarella took a sip off the coofu* means what it does. Trivially, yes; but what exactly is that meaning? The sentence is not semantically anomalous in the way that, e.g., *colorless green ideas sleep furiousy* is, but lacks a sufficiently clear interpretation as to be just troubling enough for a truth-conditional approach to meaning. Such examples show that, for a range of cases, the truth-conditional theory of meaning would be practically useless—even if were true—since it cannot explicate just what the truth condition of Barbarella’s having took a sip off the coofu actually is or amounts to. One moral, I take it, is that truth-conditional theories of meaning are inadequate because they abstract away from what is interesting about language, thought, semantics, conceptualization, and cognition.
Hence, what separates the determination argument \( A \) from \( B \) is that the former makes no such question-begging assumptions about what meanings are. In sum, the alternative determination argument \( B \) is merely self-promotional. It fails to persuade anyone other than those who already endorse the claim that meaning is at least in part truth-conditional to reckon that a theory of meaning must be a truth-conditional theory of meaning. Arguments such as \( B \) therefore provide no independent reason to hold that truth-conditions are the determinates of meanings, much less that cognitive processes are not, and thus no reason to hold that the determination argument \( A \) is unsound.

3.4. Truths and transcendence

3.4.1. Are truths ontologically prior to speakers? Language has not infrequently been treated as something that transcends, in the sense of being ontologically prior to, and thus independent of, any given individual speaker or collection thereof. But now, given this assumption, a new objection to the determination argument \( A \) seems to arise. If language transcends the speakers who use it, then if language subsumes the class of truths, so too will truths be ontologically prior to, and thus independent of, any given individual. But if truths are speaker-independent, then the determination argument makes no sense; for how could cognitive processes be relevant to truth-values if the truths that bear those values—or even language, more generally—is transcendent, or independent of the speakers in which those processes reside?

There are at least three, related reasons motivating the treatment of language as something that transcends any given individual speaker or collection thereof. Firstly, the transcendence of language, in the sense of ontologically priority and speaker-
independence, would help explain its public or communal nature, as well as how it is that speakers can share a language. Second and relatedly, it seems that languages could not be learned or acquired if they did not exist prior to speakers or collections thereof. A third line of reasoning is due to Jerrold Katz (1972, 1981). Accordingly, language seems to be an abstract object. Likewise, the units of language—whether morphemes, sentences, or truths—seem to be types of entities, and hence abstract objects themselves. Yet, if language and its units are abstract objects, then linguistics should be about those objects—not speakers’ knowledge of it, much less the cognitive processes that factor in that knowledge.

Each of these reasons has proven influential to theorists with sympathies for either Platonic, Cartesian, or Fregean versions of rationalism. For instance, they played a crucial role in the development of the Language of Thought hypothesis—i.e., the hypothesis that a necessary condition on learning a language is the existence of a prior “language” or representational system. Consider, for example, Jerry Fodor’s (1975: 63–4) well-known argument.²³

(15) For a speaker S to learn a language L, S must learn what its predicates \((L: P_1, \ldots, P_n)\) mean.

(16) For S to learn what the predicates of L mean, S must learn a determination \(E\) of the extensions of those predicates \((L_E: P_1, \ldots, P_n)\).

(17) For S to learn \((L_E: P_1, \ldots, P_n)\), S must learn that \((L_E: P_1, \ldots, P_n)\) fall under so-called truth rules, \(R_t, R_I, R_b, \ldots\).

(18) S cannot learn that \(P_i\) falls under \(R_i\) unless one has some \(L\) in which \(P\) and \(R\) can be represented.

²³ Although Fodor is the most representative of this hypothesis, the claim to originality is by no means his; the idea at least goes back half a century to Ludwig Wittgenstein, for instance, who remarked, for thinking just is a kind of language (1979: 82).
So, S cannot learn L unless S already has some language L'. In particular, S cannot learn her first L unless S already has a system capable of representing (L_k: P_1, ..., P_n).

On pain of circularity, L' cannot be L.

First languages are learned.

So, at least some cognitive processes are carried out in L' (or L other than natural Ls).

Obviously, a crucial lynchpin in Fodor’s argument is the inference to having some L in which P and R can be represented from the claim that S cannot learn that P_i falls under R without some such L. By stipulation, Fodor (1975: 59 fn 5) states that R is a truth rule for some P_i iff (i) R is of the same form as F, and (ii) all of R’s substitution instances are F: 

\[ P \] is true in L iff x is G. Substitution instances of F are obtained by (iii) replacing ‘d’ and ‘l’ (first-order object-level L) with quotes, (iv) replacing ‘P_y’ by a sentence whose predicate P_i and whose subject S is a name or other referring expression, and (v) replacing ‘x’ by an expression which denotes the individual referred to by the subject of the quoted sentence. Since the language of thought hypothesis is irrelevant to rebuffing the objection at hand, I will not discuss it other than to note that it is far from clear why anyone should accept such an inference, and that language acquisition research has not been kind to Fodorian arguments about what must be in place for language acquisition to occur.

One might worry that the objection rests on the fallacy of division—i.e., that every part of language must have some property since language itself does. I doubt such counterobjections will be ultimately helpful to the proponent of the determination argument A. For one thing, the characterization of a language L as being nothing more than an inventory or (mere) aggregate of its parts—i.e., the totality of possible

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24 See, e.g., Tomasello (2003); Mandler (2004); Churchland (1989).
constructions, of which the truths form a subclass—is not obviously incoherent, better characterizations though there may be; for another, the intuition that truths are somehow speaker-independent is a seasoned one, and not likely to be dislodged by appealing to the fallacy of division. What is needed, I think, is a Wittgensteinian reminder that the intuition itself is misbegotten. Perhaps ironically (given his earlier, more Fregean views), the best formulation came from Davidson:

Perhaps we are influenced by the idea that a language—especially when its name is spelled with a capital, as in ‘English’, ‘Croat’, ‘Latvian’, ‘Inuit’, or ‘Galician’—is some sort of public entity to one or more which each of us subscribes, like the telephone service, and which therefore really is extraneous to us in a way that our sense organs are not. We forget there is no such thing as a language apart from the sounds and marks people make, and the habits and expectations that go with them. ‘Sharing a language’ with someone else consists in understanding what they say, and talking pretty much the way they do. There is no additional entity we possess in common any more than there is an ear we share when I lend you an ear.

(1995: 18)

Davidson’s formulation, in one fell swoop, puts the lie to the perpetuation of the mistaken ontological view that language is transcendent, and also seems to have non-trivial consequences about the relationship between language and truth-bearers. Rather, languages are simply speakers’ systems for evoking and accessing cognition and cognitive processes like conceptualization.

Nevertheless, it seems to me that there is an oft-held view that is related to this mistaken ontological view, but which might be taken to survive any such reminder. The view is that truths are Fregean thoughts, which transcend languages in addition to individual speakers or collections thereof. Hence, Davidson having shown that languages
are not transcendent does not thereby show that truths are not transcendent. I think this thesis is mistaken for roughly the same reasons, and that we can get clearer about the relationship between the facts involving cognition and the facts involving truth by showing as much.

3.4.2. Truths as Fregean thoughts. In his famous essay Der Gedanke, Gottlob Frege seems to have assumed a basic thesis about language and thought—one which precludes cognitive processes from being relevant to truths. Initially, we might state that thesis by saying that the basic items of a language say or express thoughts or ideas. Prima facie, this statement is logically equivalent to the conjunction of two claims.

(23) The basic items of a language say or express things.
(24) The things said or expressed by the basic items of a language are thoughts or ideas.

These two claims themselves requires further specification along at least three parameters: (i) what the basic items of a language are, (ii) what the relation picked out by expression amounts to, and (iii) what thoughts or ideas are. There will be more to say about (ii) and (iii) later. With regard to (i), there are a variety of candidates from among which to select—words, sentences, utterances, texts, and so forth; but, where thoughts are concerned (as opposed to ideas), let us suppose that the basic items of a language are sentences. Accordingly, the thesis can be reconstructed as a conjunction of the following three claims.

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25 In what follows, I will use as synonymous and interchangeable the terms saying and expression, said and expressed, etc. All such pairs are extensionally equivalent classes.
(25) The basic items of a language are sentences.
(26) A sentence expresses some thing.
(27) The thing expressed by a sentence is a thought.

Call the conjunction of these three claims Frege’s thesis. Although he was neither the originator of the thesis nor the textile metaphor,26 Gottlob Frege was one prominent exponent: the thought, in itself immaterial, clothes itself in the material garment of the sentence and thereby becomes comprehensible to us. We say a sentence expresses a thought (1918/1956: 292).27

Although Frege’s own considered view ultimately may have been that there is a one-to-one relation between a sentence and the thought it expresses (Sterrett, submitted), Frege’s thesis is girded by the widely-held twin assumptions that, firstly, thoughts or ideas—whatever they are—are not type-type identical to what expresses them, and that, secondly, there are many-many mappings between these two non-identical classes of entities. More specifically, thoughts cannot be type-type identical to the sentences expressing them, since not only can one and the same thought can be expressed by different sentences in different languages (e.g., a given thought \( p \) can be expressed by the

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26 For example, the textile metaphor was invoked by Ralph Waldo Emerson, who wrote: hundreds of writers may be found in every long-civilized nation, who for a short time believe, and make others believe, that they see and utter truths, who do not of themselves clothe one thought in its natural garment (1836: 31).

27 Frege’s statement of Frege’s thesis goes beyond it by adding a further epistemic claim pertaining to a speakers’ access to (Fregean) thoughts. Extracted from his textile metaphor, that claim is something like: only when expressed by a sentence does a thought become comprehensible. One way of understanding this claim is as a suggestion about what condition must be met for comprehending what a given sentence means—i.e., “grasping” the thought that it expresses. But since explaining this claim in terms of yet another metaphor strikes me as a lateral move, and since Frege’s statement of the thesis is inessential to understanding Frege’s thesis itself, I will set it aside for now.
sentences *it is snowing, snow is falling*, *es schneet*, or even *hark, snow!*, but a given sentence in a given language can express different thoughts (e.g., *it is snowing* can differentially express the thoughts that now is a good time to get the tobaggan, that the roads might be slick, or that San Diego is undergoing a meteorological anomaly).

Given this distinction, Frege wrote that truth is often mistakenly ascribed to sentences, ideas, and other such things: *and when we call a sentence true we really mean that its sense is. From which it follows that it is for the sense of a sentence that the question of truth arises in general* (1918/1956: 292). So, rather than workings, sayings, ideas, or sentences, Frege held that the question of truth—*is it so?*—arises for thoughts. Hence, let us add to Frege’s thesis a fourth conjunct:

(28) The question of truth arises for what sentences express—namely, thoughts.

According to Frege’s thesis then, truth is properly or primarily predicated of some thoughts expressed by some sentences (not all sentential senses are thoughts and some thoughts are not true), and those thoughts that are true are extensionally equivalent with facts. This entails, of course, that Fregean facts cannot be material objects in the real world.\(^{28}\)

\(^{28}\) Although the sheer variety of candidates for the primary and proper bearer of truth is legion, they are united as a class by the idea that truth-bearers represent something else and—when true—do it well. Because of this unifying idea, one sometimes sees theorists being explicitly flippant about their commitments to the proper or primary bearer of truth, holding instead that it makes little difference which candidate is favored as long as we can make good on some such notion as REPRESENTATION. I myself have been guilty of such an offense (Wright, 2005: 25). I now realize that the issue is much weightier than typically given credit for, since the commitments one takes toward the proper of primary bearer of truth often influence—in subtle and surreptitious
Importantly, Frege sought to sharply distinguish between two ways of understanding the term thought: by a ‘thought’ I understand not the subjective performance of thinking but its objective content, which is capable of being the common property of several thinkers (1892: 32 fn.). Accordingly, thoughts are not cognitive states in any psychological sense. As to a positive characterization, Fregean thoughts are notoriously mysterious entities: immaterial and non-psychological syntactically-organized complexes of what Frege above called objective content, said to exist in a third realm (i.e., they neither belong to what was called the inner-world of ideas, nor the outer-world of material, perceptible things). In any case, whatever the nature of thoughts, it is clear that Frege was motivated to posit such entities by an antecedent commitment about what must, and what cannot, appropriately play the role of the primary and proper bearer of truth—specifically, a commitment to the idea that truth-bearers must transcend the individual speaker or cognizer who thinks of or about them. What I recognize as true I judge to be true quite independently of my thinking about it. That someone thinks it has nothing to do with the truth of a thought, wrote Frege (1918/1956: 307). His insistence on this distinction between the subjective performance of thinking and the objective content of what thinking is about was, of course, merely a particular application of his more famous insistence on isolating the disciplines of logic and psychology; importantly,
though, the wedge used to segregate these disciplines was none other than the concept TRUTH. The object of true expression—the thought—must be invariant under translation, context, or change of attitude (i.e., we doubt, then come consider, are certain about, etc. one and the same truth).

3.4.3. Frege’s thesis unraveled. Frege’s thesis has been extremely influential across a range of disciplines and theoretical movements accordingly—particularly in cognitive science, whose charge involves explaining the nature of the relationship between language and thought. For example, modulo a few alterations in theoretical vocabulary, a derivative of Frege’s thesis became a cornerstone of early information theory, and later an element in the Language of Thought hypothesis. In any case, more than a few have supposed Frege’s thesis to be both utterly obvious and obviously right. Steven Pinker, for instance, appears to have unwittingly rehearsed Frege’s own statement of the thesis, including the textile metaphor, in a Fodorian key: or are our thoughts couched in some silent medium of the brain—a language of thought, or ‘mentalese’—and merely clothed in words whenever we need to communicate them to a listener? (1995: 56). Moreover, more than a few have followed Frege in taking truths and their properties

Of course, the vocabulary changed. Sentences and thoughts became signals and messages, which were de/ciphered instead of express/ed. So rather than a sentence expressing a thought, messages are enciphered in the form of a signal and transmitted through a channel whereupon the signal is deciphered to express the message (Shannon & Weaver, 1949). This work was based on Claude Shannon’s MA Thesis at MIT, entitled A symbolic analysis of relay and switching circuits. Shannon noticed the preservation of structure in mappings from among binary values like true/false, on/off, yes/no, and binary digits (bits) 0 and 1, and applied the observation to electronic telephone switching circuits using the axioms of Boolean algebra during his tenure as a research mathematician at Bell Telephone Laboratories. The result was crucial to the development of computing, the computer metaphor of mind, and to the computational theory of mind.
to be transcendent, in either the sense of being public and shareable, ontologically prior, or being speaker- and cognizer-independent. Alfred Ewing (1962: 473), John McDowell (1996: 28), Jennifer Hornsby (2001: 663–65), and many others, for instance, toe exactly this Fregean line by introducing the construct THINKABLE CONTENT into their theories of mind, language, and thought, and the defense of their respective versions of the identity theory of truth in particular. Generally, they have done so as a way to guard against what they consider the pernicious idealism entailed by the identification of true thoughts with thinkings that are true. Yet, the intuition that has motivated them, I think, is a common

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30 For well over a decade, McDowell (1996, 2005) has consistently argued for an identity anti-theory of truth. (McDowell is quite squeamish about the word theory (though surely he does not intend his remarks to have the same status as those of my grandmother)). The identity anti-theory involves the following theorem about the relationship between truths and facts: the proposition that \( p \) is true iff there is a fact that is identical to \( p \). Frege himself seems to have endorsed this theorem, claiming that facts are simply true thoughts (1918/1956: 307; see also Hornsby, 2001). For his part, however, McDowell has never actually mentioned, much less explicitly endorsed, this theorem. In its place, he has only offered banal adages of the following sort: there is no ontological gap between the sort of thing one can mean, or generally the sort of thing one can think, and the sort of thing that can be the case. When one thinks truly, what thinks is what is the case, and again, when we see that such-and-such is the case, we, and our seeing, do not stop anywhere short of the fact. What we see is: that such-and-such is the case (1996: 27, 29). Terms like fact with what is the case, states of affairs, how things are, and that things are thus and so are freely interchanged without heeding their differences (perhaps as way of emphasizing his disdain for categorizing his view as a theory of truth). Of course, as many have pointed out, these adages implicitly seem to involve the marriage of a Fregean view of thoughts with a Tractarian view of the world as the totality of facts. But for his part, McDowell thinks that this marriage amounts to nothing more than a platitude—a truism, as he calls it, which is beyond reproach. It is clear that McDowell does not intend the platitude to be warrant for the theorem; fine, but what about the platitude itself? If McDowell has an argument or warrant for that platitude, it would seem to turn on the following inference. Schematic locutions like what is the case and that things are thus and so involve a double entredre, in the sense that they can name both ontic or extralinguistic entities (e.g., facts) as well as linguistic entities (e.g., truths). Hence, the claim that things are thus-and-so picks out the conceptual content of an experience, but if the subject of the experience is not misled, that very same thing, that things are thus and so, is also a perceptible fact, an aspect of the perceptible world (1996: 26; cf. Engel, 2001). Given this double entredre, a true
and more humble one: only if truths are transcendent, or otherwise prior to and independent of speakers and cognizers, can the relationship between objectivity and truth be secured. But now, another objection presents itself. Truth-values cannot be determined by cognitive processes since what bears them—namely, *thoughts* or *thinkable contents*—transcend the individual speaker or cognizer who thinks of or about them.

Despite enjoying such wide support, Frege’s thesis rests on a misbegotten view of the relationship between cognizers, language, and thought. A now-standard complaint, for instance, is that Frege’s thesis and its derivatives are based on several inept metaphors that are themselves based on ordinary—i.e., philosophically injudicious—ways of talking (Reddy, 1979; Harris, 1981). One is the aforementioned *textile metaphor*, which takes thoughts to be abstract objects with fixed and determinate properties that can be “clad” in sentences or other linguistic items. Similarly, the so-called *container metaphor* takes sentences to be “containers” for thoughts; another is the *conduit metaphor*, which supposes that communication is the “transfer” of such containers from one mind to another by a process of “telementation.” Lastly, there is Frege’s own notoriously obtuse proposition $p$ is identical with some fact. At times, it appears that McDowell thinks of himself as merely applying a tried-and-true inference rule: namely, redundancy (i.e., $p \rightarrow p$). I disagree, and think McDowell has made an egregious mistake. The mistake is to assume that the nature of mind-independent reality (i.e., *what is the case, facts*) can simply be read off of our thinkable contents. For whether or not we attempt to assign an actual value of any sort to *that things are thus and so*, thinkable contents are always and everywhere contents that are thinkable; they are not mind-independent constituents of reality (on any ordinary account of it). In particular, contents are not *aspect[s] of the layout of the world*. The obvious reason why is that contents involve the construal of conceptualizations, but the mind-independent world does not come already construed. Hence, if there is an identity, it precisely the one that McDowell fails to countenance: thinkable contents are cognitive constructions in the sense of being acts of thinkings, and are nothing unless otherwise enacted.
metaphor that language comprehension is a matter of “grasping” the thought expressed by sentences.

Frege’s thesis is misleading, to be sure, but not because it is based on inept metaphors. The inept metaphor complaint misses the mark in the particular case of Frege’s thesis—even if the complaint is gripping, more generally—simply because Frege’s thesis does not obviously involve any such metaphors; so it does not obviously involve any inept ones. Even still, inept metaphors serving as the basis for a theoretical story can be bracketed as benign to some extent (e.g., the rising sun, time flowing like a river); for such metaphors are problematic only when their problematic mappings and entailments are taken too seriously. Rather, what is misbegotten about the view foisted on us by Frege’s thesis is the attendant metaphysical assumption about the lack of a relationship between cognizers to either language or thought, i.e., about the relationship between language and thought as being one that is cognizer-independent. Subsequently, on such a view, the study of language and thought proceeds by disregarding the details of their relationship to cognizers. And this is, of course, the received view of semantics arising out of the Frege-Tarski tradition.

In asserting that Frege’s thesis captures the root idea of the relationship between language and thought, we forget that we are speaking metonymically (i.e., Frege’s statement of Frege’s thesis was actually said or expressed by Frege himself). We forget that sentences, and other units of language more generally, are standing in for speakers; they are cognized as having the properties that allow them to serve as a conversational proxies—a wonderful cognitive feat, of course, used in myriad ways beyond Frege’s thesis (e.g., clocks tell time, the White House declared war)—though they do not actually
have the properties of speakers. Perhaps the point can be put more forcefully: Frege’s thesis is false. And it is false because the claim in (26) is: sentences neither say nor express, any more than do pencils solve math problems. Moreover, if sentences neither say nor express, then it cannot be the case that the question of truth—is it so?—arises for what they say or express. As such, something else must be accorded the status of primary and proper bearer of truth other than Fregean thoughts. For my part, that something should be something more cognitively appropriate.

I doubt that these points are at all new; here is Noam Chomsky making a similar one, only in the context of reference rather than truth: *people use words to refer to things [...] reflecting interests and circumstances, but words do not refer; there is no word/thing relation of the Fregean variety [...] these approaches may be quite appropriate for the study of invented symbolic systems [...] but they do not seem to provide appropriate concepts for the study of natural language* (2000: 79).31 With Chomsky, I think we gain philosophical clarity by acknowledging that speakers—not sentences—are the apposite candidates for saying or expressing. More relevant to the present essay is that, a fortiori, speakers—not sentences—are the apposite candidates for saying or expressing truly.32 This insight will have ramifications for how we should think about the relationship between truth and cognition in chapter two.

31 Ray Jackendoff draws much the same conclusion that all reference is speaker-reference and is not sentence-reference; his conceptualist conception of reference is built on the following principle: a speaker S of language L judges phrase p uttered in context C, to refer to entity e in the world as conceptualized by S (2002: 304).

32 This is not to say that speakers are the primary and proper bearer of truth, but that some of what they say or express is. Hence, on this view, if anything is to be a truth-bearer, it must be a kind of saying or expression.
3.5. *Cognizers and semantics: a dilemma?*

According to another line of reasoning, cognition and cognitive processes can be shown to have no bearing on truth with dilemmas such as the following. Either truth is not, or is, a property. If truth is not a property, then a fortiori it is not a property upon which cognitive processes have any bearing. If truth is a property, it is a semantic property par excellence, since it holds of certain expressions in relation to the world. But the exigencies of human psychology are irrelevant to whether or not semantic properties hold of a given expression; what matters for semantics, and thus for the study of truth, is whether, when, and how these expressions are related to the world aright. So since semantic properties like truth are not the sort of thing that could bear the taint of cognitive processing, there is no explanatory need to undergo an analysis of cognition. Either way, cognition and cognitive processes have no bearing on truth.\(^3\)

Dilemmas such as this reveal that the traditional disregard, in which cognition is taken to be orthogonal to the explanation of the facts involving truth, is not altogether unmotivated. Still, such counterarguments can be managed by showing how they collapse—i.e., by showing that either of the two horns involves a mistaken premise, and thus that the dilemma forces a false choice upon us. For instance, one might show that the first premise fails to be fully gripping, since it is entirely consistent with truth not being a property upon which cognitive processes have any bearing that cognitive processes bear on truth understood as something other than a property. Alternatively, one might show

\(^3\) I am unaware whether anyone endorses this argument. In any case, according to yet another line of reasoning, the study of cognition is not merely irrelevant to the study of truth—it is a hindrance. It leads to confusion and mistakes, e.g., the confusion between semantic properties of expressions, such as being true, and psychological properties of cognizers, such as taking to be true.
that the second premise is gripping only if we endorse the received view of semantics. In lieu of that view, there are competing views and traditions that involve no such commitment to cognitive processes being irrelevant to whether semantic properties hold, or that do not take truth to be a semantic property, or that do not take semantics to be the study of properties relating expressions and the world.

Both the dilemma and the ways of managing it reveal that the different ways in which truth-theorists have countenanced the facts involving truth are not altogether unmotivated; indeed, quite the contrary—often, they have been theoretically motivated (e.g., the claim that cognitive processes are irrelevant to whether semantic properties like truth hold of a given expression is motivated by a theory of what semantics is about). Consequently, much turns on what one takes the facts involving truth to be when the overarching theoretical endeavor to be explanation. Cognition has been traditionally regarded as being orthogonal to the explanation of the facts involving truth; but given that truth is cognitively modulated, as the determination argument A seems to establish, this traditional disregard still seems to be a mistake—one which reveals a general lacuna in the philosophical explanation of truth. The determination argument A is valid, and I have provided a sample of how objections—particularly those attempting to show it to be unsound—can be rebuffed. This suggests the need for a reconsideration of what the facts involving truth are if theorists are to have a sense of how to construct a theory of truth that produces comprehensively adequate explanations.

Of course, that the dilemma fails to be ultimately persuasive is not yet to show that cognition is relevant to the explanation of the facts involving truth or to what extent. But while the determination argument A picks up that slack, the thesis that truth is
cognitively modulated only informs us about an aspect of truth—specifically, what determines it; but it does not indicate anything about the concept or the nature of truth. Furthermore, many different theories of what truth is are compatible with the thesis about this aspect of it. Truth could be cognitively modulated and still be an operator, a second-order monadic property, a covariance relation, or something else altogether. This compatibility, understood one way, is a virtue, since it provides some reason to think that it is possible for theorists to reach some consensus as to what they take the facts involving truth to be. Nevertheless, a viable theory of truth and other alethic phenomena should be able to indicate something about the concept and nature of truth per se.

In chapters two and three of the dissertation, I argue that truth consists in a set of multi-place cognitively modulated correspondence relations between the judgments serving as the content of speakers’ veridical linguistic constructions and clusters of prototypes of ontological categories that they correspond to. This elaboration is far from trivial. If true, it entails that that truth is analyzable and so not a primitive, and that an analysis of what truth is turns on a defense of some version of the correspondence theory of truth. The version defended turns out to be one that is fit for cognitive linguistics; and it is has the surprising consequence that the popular view of cognitive linguistics as being incompatible with the correspondence theory of truth is mistaken.

4. Intersections and lacunae in philosophy and cognitive science

4.1. What follows from the rejection of the truth-conditional theory of meaning?
The “holy grail” of cognitive science is often held to be a comprehensively adequate theory of meaning. After all, thought and language are inherently symbolic, which means that semantics must inevitably be at the fore of any such science of the mind. I have suggested that one need not accept the received view that semantics as the study of the intentional properties of expressions, nor, relatedly, the view that meaning of an expression just is the set of conditions under which it is true. Yet, the eschewal of these views has been used to draw several problematic or mistaken conclusions. One example is the conclusion that, given the rejection of the truth-conditional theory of meaning, the task of constructing a viable theory of truth can be altogether eliminated.\textsuperscript{34} Many researchers’ route to replacing truth-conditional theories of meaning with a more appropriate ideational- or cognitive-conditional view of meaning issues from the following (caricatured) argument.

\begin{align*}
(29) & \quad \text{Theories of truth are nothing but theories of truth conditions.} \\
& \quad (\textit{reductionism}) \\
(30) & \quad \text{Truth-conditions are neither necessary nor sufficient for explaining what the meaning of an expression consists in.} \\
& \quad (\textit{rejectionism}) \\
\therefore (31) & \quad \text{Theories of truth are inadequate to serve as theories of meaning. (\textit{deflationism})}
\end{align*}

In this alternative tradition that emphasizes the contiguity of semantic phenomena to other domains of cognition, many see themselves as reversing the explanatory priority of \textsc{truth} to \textsc{meaning} that was immanent in truth-conditional theories of meaning. I think

\textsuperscript{34} A second example: having taken an astoundingly and ironically monolithic view about philosophical research, Lakoff (1987) and Lakoff & Johnson (1999) unwittingly conclude that semantics is what separates them from philosophers—\textit{unwittingly} if only because, in rejecting truth-conditional theories of meaning, Lakoff and colleagues actually \textbf{join ranks} with the majority of them (e.g., virtually all deflationists about truth).
that this reversal is right, so far as it goes—again, the determination argument \( A \) and the rebutted objections give us reason to think that truth is meaning-conditional, not that meaning is truth-conditional (see also Kalderon, 1997). Yet, some have additionally been led to the view that truth, and related phenomena are tangential to their framework—even a hindrance. Of course, the above argument (29)–(31) is, by itself, insufficient to excuse theorists from having to develop a viable alethic theory; such excusal would require invoking the conclusion (31) as a premise for a further conclusion.

\[\therefore (32) \quad \text{Truth does not play an explanatory role in semantics.} \]

\((\text{expressivism})\)

I doubt that anyone actually endorses the caricatured inference to this conclusion; and so we should be careful, here, not to conclude or expect too much from such arguments. The reduction premise (29) is dubious, as I argue in chapter four. And while the rejection premise that truth-conditions are unnecessary and insufficient for explaining meaning is, to my mind, eminently plausible, the inference from premise (31) to the further, expressivist conclusion (32) appears to be a non-sequitur; for it does not follow that truth has no explanatory role to play if it plays no explanatory role in the theory of meaning—a theory of truth or of truth-conditions might earn its keep elsewhere.

4.2.  \textit{Distinguishing alethics from semantics}

Great theoretical controversies have been set afoot because of confusions arising from different accounts of what semantics is supposed to be the study of (Alston, 1970). Some of these controversies can also be avoided, managed, or ultimately soothed away
by introducing distinctions that dissolve, rather than solve, problems and confusions. Following the received view, many orthodox theories of mind and language have been keen to sharply distinguish semantics from pragmatics; for instance, the eminent Frege scholar Nathan Salmon opined:

*The problem of correctly characterizing the semantic/pragmatic distinction [...] is accompanied by competing conceptions of the very enterprise known as semantics. Some writers conceive of semantics as concerned with what a speaker says or asserts in uttering a declarative sentence, as contrasted with what the speaker means or accomplishes by means of the utterance, and/or with how the audience interprets, the utterance (these being matters of pragmatics). I believe these distinctions are properly seen as distinctions wholly within pragmatics, distinctions that do not so much as touch on semantics properly so-called. To conceive of semantics as concerned with speaker assertion [...] is not merely to blur the distinction between semantics and pragmatics. It is to misidentify semantics altogether, and to do so sufficiently badly that those who conceive of semantics in this way, when using semantic expressions like denote, content, or true, are often fruitfully interpreted as not speaking about the notions of DENOTATION, CONTENT, or TRUTH at all, but about other notions entirely—specifically various pragmatic notions. (2005: 321)*

In the last sentence of this quote, Salmon’s view is revealed as being a special case of the view received from the logical positivists and their heirs. By that view, he is able to nicely reveal a mistake in thinking that what a speaker says or asserts—i.e., the relation between a speaker and her expressions and assertions—falls within the explanatory scope of semantics. 35 Yet, in making one distinction, he fails to make another.

35 Salmon’s distinctions, here, apply to the Aristotelian maxim discussed at the beginning of chapter three. Accordingly, that maxim is correctly located to the domain of pragmatics, since its proponents suppose that truth-values are attributes of speech acts—acts of saying, or of what a speaker says or asserts as Salmon put it. That is not to say, however, that Salmon’s distinctions make a case for Aristotelian illocutionary-act
With that in mind, we can introduce a distinction between two subdisciplines—namely, *alethics* and *semantics*. The primary charge of these two subdisciplines involves the study of phenomena related to truth and phenomena related to meaning, respectively. Hence, what Salmon calls *semantics properly so-called* encompasses both semantics and alethics, and then sharply distinguishes them from pragmatics. In distinguishing the former two subdisciplines, it becomes clear that Salmon runs together semantic concepts, such as CONTENT and MEANING, from alethic concepts, such as DENOTATION and TRUTH.

This distinction allows us freedom to rethink what certain theories are about. For instance, the received view—i.e., what Schlick, Morris, Carnap, and Tarski called *semantics*—is recharacterized as a family of alethic theories (the study of “word/world” relations between signs or expressions and the external entities they apply to), leaving us to reserve the term *semantic theory* for a theory of meaning and other related semantic phenomena (the study of psychological relations between signs or expressions and ideas). Accordingly, semantics is not the disciplinary crucible within which to tackle questions about truth, nor the intentional properties of signs or expressions more generally, although the analysis and description of the term *true* or the concept *FACT* would. Morris’s characterizations of syntax (the study of formal relations between signs or analyses of truth being in any way problematic. In particular, it hardly follows from an insistence on properly identifying what semantics is about that the various pragmatic notions of such the Aristotelian analysis (e.g., TRUTH and FALSE) are subject to reproach, since one might coherently maintain that whatever semantic or alethic phenomena there are can only be arbitrarily and artifactually separated from pragmatic phenomena. Consequently, proponents of illocutionary act analyses of truth, such as those embodied in the Aristotelian maxim, can consistently accept Salmon’s distinction as long as they are willing to suggest that the data set to be explained by Salmon-style semantic and alethic theories is the empty set. What he calls *semantics properly so-called* relegates all connections with speakers and cognizers outside the scope of inquiry; but there is no meaning, content, truth, denotation, or any other semantic or alethic phenomena without speakers or cognizers to relate to them.
expressions) and pragmatics (the study of the communicative relations between signs to interpreters) remains unchanged for present purposes.

Far from being arbitrary or unmotivated, this distinction has a long and venerable history. And in addition to separating truth from the explanatory scope of semantics, this distinction mends a well-known and expansive rift amid several traditions that differ in their very foundational conception of what the proper concern and scope of these subdisciplines should be; and it does so by effectively upholding an old division of labor—one which is reminiscent of Frege’s distinction between Sinn and Bedeutung and Quine’s distinction between the theories of meaning and reference. (Owing to its greater generality, however, it subsumes the latter two as special cases.)

Of course, terms like alethics or alethic theory are infrequently used except in a few quarters of highly remote academic contexts. The transliterated root lēthe (nom.,

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36 It is inherent in standard views of linguistics—Chomskian and otherwise—following the cognitive revolution in 1956, and it also has its roots in both the Aristotelian tradition, and more so in the Lockean empiricist view of language and thought. In Book III of the Essay, Locke defended a signification thesis about the fundamental relation studied in semantics: words, in their primary or immediate signification, stand for nothing but the ideas in the mind of him that uses them, how imperfectly soever or carelessly those ideas are collected from the things which they are supposed to represent (1693/1995: 323). Locke held that humans, having long ago recognized that the articulation of sounds can serve as the external signs of a speaker’s internal mental representations, began to bring out their ideas—for themselves, for others, and for a variety of other ends (e.g., as a public record of private thoughts, as a mnemonic aid). He rejected the claim that there is a natural connection between sign and idea, and suggested instead that the connection is arbitrary since the process by which sounds come to stand as signs for the ideas they signify is one of what Locke called voluntary imposition—a suggestion picked up centuries later by the Swiss linguist Ferdinand de Saussure. Cognitive grammarians have responded that the arbitrariness of sign and idea could only apply to a subset of individual morphemes (caveats pertaining to, e.g., onomatopoeia are needed), and that rejections of a natural connection should instead be couched in terms of conventionality (e.g., Langacker, 1987: 12 fn. 1). (As I see it, such skirmishes are merely playing out those issues, mutatis mutandis, debated in Plato’s Cratylus about whether linguistic forms (e.g., names) are conventional or natural.)
λήθη) has several meanings, all of which pertain to cognitive states such as inattentiveness or conscious awareness. These meanings include: sleep or slumber, a lack of wakefulness, oblivion, or a lack of concentration, silence, a state of lethargy or forgetfulness, and even stupidity as in elēthios (adj., ηλήθος); prefixed with the alphaprivative ἀ, the terms alethic (adj., ἀληθές) and αληθεία (nom., ἀληθεία) reverse these connotations. Whatever its meaning in Ancient Greece, alethic has undergone several lexical alterations, and is now used primarily as an adjectival synonym for true, or for its nominalization truth.37

37 The philosophical import of the term aletheia for the study of truth is highly controversial—mainly due to Martin Heidegger, who variably translated it and its cognates as discoveredness (Entdecktheit) and being-discovering (Entdeckend-sein), unveiledness, uncoveredness, unconcealment, disclosure or disclosedness: The ἀληθεία which Aristotle equates with πράγμα and φανόμενα [...] signifies the ‘things in themselves’; it signifies what shows itself—entities in the ‘how’ of their uncoveredness (1927/1962: 262; 1988/2002: 9; see also Cole, 1983). In The Masters of Truth in Archaic Greece, Marcel Detienne (1996) took Heidegger to task for his translation and exegesis. More importantly, Detienne noted the particularly rich semantic connection between aletheia and terms for mnemonic states, concluding that poets were ‘masters of truth’ because they controlled praise and memory, thereby preventing the deeds of heroes from being forgotten. Hesiod’s Theogony, for instance, characterizes Mnēmosynē and the Muses as the ‘words of memory’—those who tell of what is, and what is to be, and what was before now; in Plutarch’s De E apud Delphos, they are said to parallel lēthe in the same way that shining (φωτός) stands to what is dark (σκότος) (1996: 45). In the scholarly epilogue to his posthumous Truth and Truthfulness, Bernard Williams in turn took Detienne to task for his putative philosophical naïveté, admonishing him for even raising the question of whether the meaning of Ancient Greek terms like alethic and αληθεία played a conceptual role that is equivalent to those of contemporary terms like true, vrai, etc. He wrote, nothing that was not opposed to the false could be rightly represented as the true (2002: 272). Williams’s quick-witted riposte will surely resonate with contemporary thought on the matter, since contemporary thought postulates a well-entrenched dichotomy between Truth and Falsity; nevertheless, I think that Williams’s riposte simply ignores the elenchus. For Detienne was not—as Williams seemed to suppose—denying that aletheia can be translated such that it rightly yields the opposition to what we today regard as falsity; instead, in tracing the lexical shift of aletheia from its mythicoreligious to philosophical significance, Detienne was questioning whether a neat translation into contemporary (philosophical) parlance can be had without neglecting the
Although the study of meaning is obviously central to the explanatory scope of a semantic theory, other phenomena are included such as synonymy, meronymy, lexical fields, non-literality, semantic anomalousness, prototype effects on lexical categories, and compositionality of meaning. Many can be studied derivatively; some cannot. Likewise, the study of truth is obviously central to the explanatory scope of an alethic theory; but just in the same way that a semantic theory is more complex than, and not exhausted by, the study of meaning per se, an alethic theory is not simply a theory of truth. Many other phenomena fall within its explanatory scope. For example, included are any and all of the \( n \)-place alethic properties that relate expressions with the entities they apply to. These include, e.g., being true, being a fact, and being veridical; denotation, extensionality, and reference; “alignment,” correspondence, and grounding; intentionality; and deixis. Also pertinent to such theories are alethic operators, such as Frege’s judgment-stroke or devices for forming pro-sentences.

4.3. The second lacuna

I have alluded to a few ways in which cognitive grammar provides a very different perspective from the received view of semantics and the Frege-Tarski tradition more generally, and provided a few arguments—both positive and negative—for taking seriously the idea that the explanation of truth and other alethic phenomena should account for the facts involving cognition.

Yet, while theories like cognitive grammar rank high in explanatory and predictive power, parsimony, elegance, unification, and other theoretical virtues, neither rich semantic connection between \textit{aletheia} and mnemonic states. The matter is not as simple as Williams (mis)represented it.
it nor any other theory in cognitive linguistics can lay claim to being comprehensive. Conspicuously absent is a viable theory of truth and other alethic phenomena. A few cognitive linguists have been forthright about this absence. Speaking for cognitive grammarians, Langacker acknowledged that the theory is not specifically concerned with truth or reality, but only with how conceived situations are linguistically portrayed [...] (1991: 55). The acknowledgement is both accurate and honest. Similarly, Fauconnier wrote: in accounting for the linguistic phenomena under scrutiny, it is not our
(immediate) concern to tell whether (or to what extent) such representations may be accurate; nor is it our concern to find the philosophical, psychological, or neurological nature of reality, beliefs, desires, and pictures. We are only looking at ways of talking


Arguably, one of the primary reasons for this absence, and thus the second lacuna, is simply a difference of interest: cognitive scientists and linguists have largely ignored actual philosophical research on the topic of truth and other alethic phenomena. Instead, they tend to fixate on psychological phenomena of a more imaginative or creative nature manifest linguistically (e.g., metaphor and metonymy, analogical reasoning, conceptual blending) to the exclusion of psychological phenomena which are deemed less interesting, such as the boring nature of accuracy and “literal” speech, veridical perception, and the conception of reality. In one sense, this stance is understandable. After all, cognitive scientists concern themselves with phenomena such as thinking and knowing as they occur in the service of intelligent agents’ interactions with their local environments, and the explanans that they develop for these phenomena—whether it be, e.g., microethological analysis of gesticulatory influences on language production, computational models of the temporal dynamics of visual processes, etc.—are not obviously abetted by the study of truth. Consequently, whether in the technical senses studied in formal semantics or in the colloquial senses lauded by bards and poets, the concerns of cognitive scientists seem to be far removed from those of truth-theorists. The result, unfortunately, is that theorists across a range of subdisciplines in and among cognitive science have in turn largely ignored cognitive linguistics on this
score, treating it as an inferior approach to truth if even one at all; where and when they have paid attention, the outcome has been univocally, and not undeservedly, critical.39

I can think of no good reason why cognitive linguistics should shy away from addressing themselves to these “boringly straightforward” issues deemed more traditionally philosophical. This is especially so given the idealized view of cognitive science as subsuming both philosophical and linguistic contributions in ways that are symbiotic and productive. Ultimately, it seems reasonable to think that the cognitive linguist should have something to say about the nature of properties (e.g., veridicality) that are predicated of expressions, concepts like TRUTH, the grammaticalization of alethic terms, etc.—no less so that any other kind of mental or linguistic phenomena within its explanatory scope. This is not to make any claim about how cognitive linguists should weight or value the task of formulating a viable theory of truth among their other tasks and projects. Rather, it is only to claim both that cognitive linguists should care about truth, and that we should care whether cognitive linguists care about truth; for the hope is that their theoretical vocabulary will not prove to be merely just another way of talking, but rather a way of talking truly.

39 See, e.g., McCauley (1986); Ferraiolo (2002); Collins (unpublished); Abbott (1997).
Chapter Two: Content, Truth, and Judgment

The study of grammar, in my opinion, is capable of throwing far more light on philosophical questions than is commonly supposed by philosophers.
Bertrand Russell (1903: 42)

0. Abstract

In the previous chapter, I argued the facts involving cognition are much more relevant to the explanation of the facts involving truth than previously thought. In this chapter, I elaborate on the nature of those cognitive processes by rehearsing some of the main constructs of cognitive grammar. These processes include focal adjustments of attention, selection, scanning, scope, scale, perspective and viewpoint. I focus on one particular cognitive process—judgment, which is a special case of the more general ability of comparison, and which is both neglected by cognitive linguists and particularly suited for an alethic theory that takes cognition seriously. In the midst of this, I also apply some of these constructs to the lexical analysis and description of alethic terms in order to show that terms like true are polysemous, and thus poorly explained by T-schemas and other platitude-based strategies.

1. Cognitive grammar: From cognitive content to grammatical construction

1.1. Toward semantic analysis and description
In chapter one, I argued that much turns on what one takes the facts involving truth to be when the overarching theoretical endeavor is taken to be explanation. Cognition has been traditionally regarded as being orthogonal to the facts involving truth; but given that truth is cognitively modulated, as the determination argument \( A \) seems to establish, this traditional disregard for cognition is a mistake. I have also provided a sample of objections to these ideas, and shown how they are either mistaken or can be managed.

Among the objections rebuffed, one was Frege’s thesis, which is more or less the thesis that the primary and proper bearers of truth are the thoughts expressed by sentences. Fregean thoughts are notoriously mysterious entities; yet, we are now in a position to note that endorsing Frege’s thesis—regardless of whether Fregean thoughts can be adequately characterized—involves confusing two kinds of relationships: one expressive, the other constitutive or structural. On one hand, expressive relationships relate their thoughts, ideas, or experiences more generally to the speakers that have them—not sentences or any other basic item of a language. Again, it is speakers that are properly treated as saying or expressing. On the other hand, the relationship between what a speaker says or expresses—i.e., their sayings and expressions—and their thoughts, ideas, or experiences more generally is a constitutive or structural one. Whereas the first relationship is pragmatic, the second is semantic.

In cognitive grammar, the claim is that the constitutive, semantic relationship is one of a **symbolic structure** having a particular type of **content** as its **semantic pole**. Symbolic structures are expressions, as I have been using the term, in the ordinary linguistic’s sense of being pairings of content and form: [t]he two elements involved in
the linguistic sign are both psychological and are connected in the brain by an associative link [...] a linguistic sign is not a link between a thing and a name, but between a concept and a sound pattern (de Saussure, 1966/2006: 65–6). More specifically, a symbolic structure Σ is a composite dipole structure (schematically represented as S–P) that is exhaustively constituted by the association of a component semantic structure S that serves as its semantic pole and a component phonological or orthographic structure P that serves as its phonological pole. Some of the constructs picked out by these and other technical terms are schematically diagrammed in Figure 3 below.

Figure 3: Some basic constructs in cognitive grammar

I will have more to say about the cognitive basis of semantic structure in §2. In the meantime, note that the association of any given S and P—i.e., namely, symbolization—is not merely coincidental. Indeed, quite the contrary; assembling a symbolic structure Σ requires of cognizers a constructive mental effort. The constructive mental effort is at least partially compositional and recursive, since a symbolic structure Σ can itself be a
component in a larger, more complex assembly of symbolic structures. These assemblies—i.e., namely, constructions—can be either specific expressions or schemas thereof, and are formed from the syntagmatic combination of component morphemes and polymorphemic expressions, and are therefore highly dependent on the modes of integration, organization, and combination of their component symbolic structures.

The modes of organization in a construction are hierarchical, where a composite structure at a given level can serve as a component structure for some structure at a higher level. Due to being organized hierarchically, constructions can have gestalt-like properties, which emerge from, but are not had by, the subassemblies of component structures from which they are formed. Consideration must therefore be given to how complex expressions are constructed “whole cloth” by speakers—i.e., from the organization of contents that are formed in accordance with linguistic conventions for the purpose of serving as the semantic poles of symbolic structures.

1.2. Usage-based model

That speakers express themselves by making a constructive mental effort to assemble various types of symbolic structures and constructions naturally lends itself to two mutually supporting suppositions.

(1) Language use is an inherently problem-solving activity.
(2) Linguistic structure emerges from the cognitive routines needed for language use.

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1 To my knowledge, usage-based model was coined by Langacker (1988); but it perhaps goes without saying that the use of usage, and the associated claim that language structure emerges from actual use has its roots in the Later Wittgenstein, and is also prominent in the works of Heidegger, Dewey, Herder, and Locke.
The conjunction of these two suppositions jointly and straightforwardly motivates cognitive grammar’s commitment to a so-called usage-based paradigm. With respect to the supposition in (1), language use is understood to be an inherently problem-solving activity. It involves the task of finding an appropriate way to code what one means or thinks given the linguistic conventions and communicative setting (Langacker, 1987: 65–6). Hence, a cognizer finds a target structure that solves the problem of coding for a given usage event just in case she resolves how to express herself by giving form to what she means or thinks. With respect to the supposition in (2), the point is that usage events are what primarily determine speakers’ linguistic competence, not general rules or highly abstract schemas. This supposition runs counter to the more traditional idea that performance depends on competence—i.e., that (linguiformal) representations of the assembly of expressions and constructions are the primary determinates of usage events. In the syntactocentric tradition (e.g., from Universal Grammar to Montague Grammar), for instance, meaning was explained in terms of linguiformal derivational processes—i.e., as the output of syntactic derivations rather than the input, which subsequently arises after and because of the transformations on phrase structures.

Implicit in both (1) and (2), then, is the assumption that it makes no sense to analyze language absent speakers who use it. From this assumption, it seems to follow that languages cannot be entities that are speaker-independent, or otherwise transcendent. Making the implicit assumption and its consequences explicit brings cognitive grammar, and cognitive linguistics more generally into direct conflict with the received view of semantics, since it attempts to analyze language by isolating from the study of the speakers who use it. David Lewis, for instance, made this isolation an explicit part of the
theoretical platform of the received view. He couched his support of it by proposing a parallel and equally sharp distinction between the study of grammars, as abstract symbol systems defined by their relations to the world, from the study of the actual communities of natural language speakers who employ them. From his paper from the *Third La Jolla Conference on Linguistic Theory*, Lewis wrote the following.

*My proposals will also not conform to the expectations of those who, in analyzing meaning, turn immediately to the psychology and sociology of language users: to intentions, sense-experience and mental ideas, or to social rules, conventions, and regularities. I distinguish two topics: first, the description of possible languages or grammars as abstract semantic systems whereby symbols are associated with aspects of the world; and second, the description of the psychological and sociological facts where a particular one of these abstract semantic systems is the one used by a person or population. Only confusion comes of mixing these two topics.* (1970: 19)

Lewis’s notion of what a grammar is is very different from that of cognitive grammarian, needless to say. Instead, for cognitive grammar, linguistic knowledge is knowledge of familiar *cognitive routines*; it originates from the cognitive processing of specific utterances on specific occasions of language use, and is cultivated by incessant attempts at symbolic communication. On this view, Lewis’s worry about the confusion of his two topics is itself confused, precisely since descriptions of languages or grammars are a fortiori descriptions of the facts involving cognition.

Of course, most of the structures familiar to competent language users are well-rehearsed and thoroughly mastered, functioning as an integrated whole. And because they are well-rehearsed and thoroughly mastered, cognizers can employ them automatically without having to attend to the component parts or their organization. Such structures are
said to achieve **unit status** (schematically represented with brackets as $[\Sigma]$, i.e., $[[S]–[P]]$). For example, fluent speakers of Dutch—unlike myself—need not make a constructive mental effort in uttering *Rijksuniversiteit Groningen* or *gebakken broodje* or any other expression with the phoneme /ɡ/; their usage is effortless because the requisite cognitive routines involved in pairing meaning with form are psychologically entrenched.

Among the symbolic structures that have achieved unit status (the most basic of which is a morpheme)—i.e., **symbolic units**—not all are prototypically linguistic phenomena. Consider, e.g., when one mimics the sound of his automobile’s squealing brakes in order to brief a mechanic; or, better yet, consider a wave goodbye, which is symbolic in the sense that it involves meaning and conceptualization in tandem with a gestural form, and so has achieved unit status despite not being specifically linguistic. Of those units that are specifically linguistic, some are novel or neologic, queer, transgressive; the vast majority, however, are conventional. A **conventional linguistic unit**, then, is a symbolic structure with unit status $[\Sigma]$, which is prototypically produced by the human vocal apparatus, and which is recognized and shared by a significant number of members of a given speech community (Langacker, 1987: 62). The **grammar** of a language $L$ is understood to be an open-ended inventory of these conventional linguistic units ($L: [\Sigma_1], [\Sigma_2], ...$), which serve to structure a cognizer’s experience of the world for expressive purposes—no more and no less.

This non-traditional view of semantic analysis and description is represented in figure 4 below.
Unlike the syntactocentric tradition of which Lewis is somewhat representative, cognitive grammar recognizes an intimate relationship between semantics and grammar. Since grammars are open-ended inventories of conventional linguistic units, it follows that all aspects of a grammar are inherently meaningful. After all, any given conventional linguistic unit \([\Sigma]\) can be fully described in terms of its three fundamental constituents—i.e., its dipole semantic and phonological structures and the associative relation that connects them \(([{S}]-[{P}])\). (This makes sense, of course, given that \(L\) is symbolic by its very nature.) All aspects of \(L\) are situated on a continuum that unites all symbolic
structures—from the schematically grammatical to the specifically lexical, from morphology to syntax.\(^2\)

In order to articulate the grammar of a language \(L\), one must give a description of those aspects of conceptualization and cognitive organization in which a speaker’s grasp of established linguistic convention inheres—one which derives from her mastery of conventional expressions, including patterns for the successive integration of symbolic units to form progressively more elaborate constructions (Langacker, 1987: 35–6). The recognition of the inherent meaningfulness of all aspects grammar interposes against other theories in the syntactocentric tradition by reversing the theoretical prioritization of e.g., syntax over semantics (Langacker, 1987: 47). Cognitive grammar is also pitted against Generative Grammar in rejecting the claim that a grammar is a generative and constructive device, i.e., an algorithmic mechanism that generates all and only the well-formed sentences. Instead, it claims that speakers draw from an open-ended inventory of conventional linguistic units to form constructions, and, more generally, to engage in the basic task of structuring and symbolizing of meaning. Consequently, it follows that what makes the constructive effort is a cognizer—not a grammar.

1.2.1. **Sanction and veridical linguistic constructions.** The conventional linguistic units of a grammar are said to **sanction** a specific usage to the extent that the target structure accords with them (Langacker, 1987: 66–70, 2003a), where **sanction** is refers to a measure of conventionality and the degree to which an expression is well-formed. In the paragon case of an optimal solution to the problem of coding, a speaker

\(^2\) See, e.g., Bates & Goodman (1997) for a variety of evidence, from aphasia to early language acquisition, suggesting that grammatical and lexical constructions do indeed emerge from one and the same heterogeneous processing system.
will simply code a unit from the grammar—i.e., a case of full sanction. Here, the target structure is identifiable simply as the particular symbolic unit coded. In lesser cases, however, there is deviancy or transgression in the specific usage because the target structure does not—to some degree—accord with the units of the grammar (e.g., a 1.5 year old’s use of the expression *dada beow* for the directive *dad, look, a cat!*); hence, the usage is only partially sanctioned.

Langacker develops the sanction construct around various categorizing relationships of extension, schematicity, filtering, and elaboration—relationships that are essential for understanding the nature of constructions. However, for my purposes here, the notion of sanction provides a constraint or necessary condition on the veridicality of constructions—what we might call **veridical linguistic constructions**. To be clear, the sense in which a linguistic construction is veridical is the sense in which it possesses some degree of descriptive or representational accuracy. Accuracy, and thus veridicality, is thus a graded construct patterned on a continuum, from minimal (i.e., no accuracy whatsoever) to maximal (i.e., total accuracy, truth) veridicality. Specifically, a construction is veridical only to the extent that it is sanctioned by the grammar of a language $L$. An extremely deviant, transgressive, or ill-formed usage event will be one that exhibits a low degree of sanction; where the construction is truth-apt, it will also exhibit a low degree of veridicality or accuracy. In cases of a high degree of veridicality or accuracy, the speaker has appropriately coded the target structure; in cases of maximal veridicality—i.e., the representation of something as it is—the target structure perfectly accords with the units of grammar and the usage is fully sanctioned. In sum, we should expect that veridicality and sanction dovetail to some degree. The notion of sanction
provides an (asymmetric) constraint on the veridicality of constructions in the sense that the content functioning as the semantic pole of a truth-apt construction must be fully sanctioned by the grammar for it to count as true, though being fully sanctioned is hardly sufficient.  

With these theoretical resources on the table, a further argument can now be formulated which shows where Frege’s thesis goes wrong, since truths—not just truth-values—are (partially) determined by cognitive processes. Accordingly, a primary object of description analysis in cognitive grammar is the construction, which is an assembly of symbolic structures or a schema thereof (i.e., closed or open sentence), and which is comprised of component structures, various types of correspondence or linking relations, and the composite structures formed from their modes of integration and organization. As an assembly of symbolic structures or a schema thereof, every construction is a fortiori constituted by semantic structures. Since semantic structure is reductively identified with conceptualization and is ultimately explicated in terms of cognitive processing, as suggested by (6), it follows that the proper characterization of any type of construction requires explication in terms of the cognitive processing that factors in it. This includes the subclass of veridical linguistic constructions, whose unifying feature is that of being representationally accurate or veridical, or of otherwise tracking how the world is.  

Interestingly, this application of SANGION also yields an empirical prediction. If veridicality and sanction are strongly correlated, then we should expect that judgments of truth increase as a function of prior exposure, and that this effect may be mediated by the subjective experience of familiarity and processing fluency (e.g., Schwarz, 1996; Reber & Schwarz, 1999; Begg & Armour, 1991; Begg et al., 1992). My occasional use of factors in instead of partially determines is merely intended to stave off misunderstandings about, e.g., indeterminacy. The sense in which cognitive processing only partially determines truths is the sense in which I am here ignoring phonology and phonological issues pertaining to constructions.  

Veridical linguistic constructions do not fall under the category of what Austin (1962:
Among this subclass is another identifiable as the truths—i.e., those veridical linguistic constructions that whose accuracy or veridicality is maximal. Tidying up a bit, we can represent the argument as follows.

<table>
<thead>
<tr>
<th>Determination argument C: cognitive processing and true constructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>(3) The primary object of description for the grammarian is the construction.</td>
</tr>
<tr>
<td>(4) Constructions are assemblies of symbolic structures or schemas thereof.</td>
</tr>
<tr>
<td>(5) Any assembly of symbolic structures or a schema thereof is constituted, in part, by semantic structures.</td>
</tr>
<tr>
<td>(6) Semantic structures are contents formed in accordance with linguistic conventions.</td>
</tr>
<tr>
<td>(7) By their very nature, contents just are cognitive processing.</td>
</tr>
<tr>
<td>(\therefore) (8) So, cognitive processing factors in constructions.</td>
</tr>
<tr>
<td>(9) Veridical linguistic constructions are a subclass of constructions.</td>
</tr>
<tr>
<td>(10) Truths are a subclass of veridical linguistic constructions</td>
</tr>
<tr>
<td>(\therefore) (11) So, cognitive processing factors in truths.</td>
</tr>
</tbody>
</table>

This additional determination argument C is valid, and sound relative to the commitments of cognitive grammar. It also gives reason to suppose that the explanation and analysis of both truth and truths should account for the ways in which cognitive processing factors in them. Of course, much of this turns on the stark differences between constructions and Fregean thoughts; however, with regard to description and analysis of truth for natural language, it seems like constructions are likely to be the better bet.

1.3. Analysis and description of conceptual and cognitive structure

153) called *verdictive* speech. For Austin and other speech-act theorists, verdictive speech is basically speech in the declarative mood uttered with certain illocutionary force; veridical linguistic constructions are explanatorily prior to, and need not be given, any such speech-act analysis or description.
What is involved in any such constructive mental effort? Cognitive grammar provides a rich, systematic, and substantive story about this and can be deployed to show how the explanatory potential of theories of truth can be upgraded. Starting from a distinctively cognitive level, the analysis and description of conceptual and cognitive structure is shown to factor in an appropriate approach to semantic analysis and description essentially.

1.3.1. Cognitive content as conceptualization × construal. Given its theoretical commitments, cognitive grammar entails a revision of the initial determination argument \( A \), which reveals that the determination relationship between truth-values and cognitive processes is much more direct. Specifically, meaning is reductively identified with conceptualization, which is a crucial and constitutive part of one’s psychological apprehension of her environment, and of the world more generally. Since conceptualizations are ultimately explicated as the cognitive processes of engaging and being engaged by the world—i.e., the mental experiences resulting from inhabiting it—it follows that cognitive processes directly co-determine truth-values in addition to how the world is.

Langacker has repeatedly observed over the course of his research that all aspects of conceptualization are subject to construal (alt. mental imagery): cognizers have the ability to structure a scene in a particular way for purposes of linguistic expression, emphasizing certain facets of it at the expense of others, viewing it from a certain perspective, or construing it in terms of a certain metaphor (see, e.g., 1987: 39; see also Clark, 1997; MacWhinney, 2005). Here, construal generically names the cognitive ability
of portraying one’s understanding of a given situation in alternate or contrasting ways. Manifestations of this ability in language are utterly ubiquitous—speakers naturally and incessantly employ it to emphasize certain aspects of a conceived scene or situation over others; unsurprisingly then, additional examples of how it manifests in language abound. Subsequently, cognitive linguists (e.g., Croft & Cruse, 2004: 46) have worked out various taxonomies of the cognitive processes that comprise the ability to construe—including scanning, framing, the “windowing” of attention, selection, perspective, simulation, and blending—as well as a fairly systematic explanation of how grammatical and lexical items impose various conventions for construing situations to mark, shift, and track different conceptualizations.

To better understand this additional crucial and constitutive part of one’s psychological apprehension of the world, consider the difference in the follow pair of sentences.

(12a) Frege sent his most famous student to Russell.
(b) Frege sent Russell his most famous student.

The array of conceptualizations that are involved in sentence (12a) are the very same ones involved in (12b). Furthermore, exactly one situation is linguistically represented with these conceptualizations, which can be described as a situation involving the transference of a pupil from one individual to another. And yet, a subtle difference in how that single situation is construed emerges from the imposition of different ways of organizing those conceptualizations, such that some aspects are attended to over others. The difference can be put by saying that the construal in (12a) involves mentally
attending to the path traveled by Frege’s most famous student, whereas the construal in (12b) involves mentally attending to Russell as the endpoint of that path.

In tandem with the axiom that reductively identifies meaning with conceptualization, the observation that construal is involved in a cognizer’s psychological apprehension of her environment jointly makes available a theoretical construct—what I will call (cognitive) **content**—for the purposes of semantic analysis and description. Content is simply the pairwise interaction of conceptualization and construal. It is thus analyzable as the output of a synthesis or function that takes these two cognitive processes as input.

\[(13) \quad f(\text{conceptualization, construal}) \rightarrow \text{content}\]

As a theoretical construct employed for characterizing what is evoked by the expressions of a given language \(L\), content is specifically geared for semantic analysis and description.\(^6\)\(^7\) Yet, while crucial, it is not yet sufficient; for not just any content factors in semantic analysis and description.\(^8\) I will say more about the difference between

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\(^6\) Langacker (personal communication) informs me that what I am calling **content** he has occasionally called **meaning** (and vice-versa). Moreover, cognitive grammarians sometimes use **content** and **conceptualization** synonymously, and **predication** when contents or conceptualizations are fitted as the semantic pole of a symbolic structure. Regarding the former, my usage of **meaning** conforms to that of Langacker (1986, 1987) so far I can tell; regarding the latter, I save the term **predication** for the traditional sense in which it occurs in subject-copula-predicate structure. While I hold consistency of usage in high regard, more important is the ability to show distinct variable places in (13). Hence, I distinguish **content** from **conceptualization** (and **meaning**) to make clear that construal makes distinct contributions.

\(^7\) Some might be tempted to “sanitize” **content** by treating **conceptualization** as a semantic notion and offloading **construal** onto a theory of pragmatics. For cognitive grammar, this fails to have the desired effect, since semantics and pragmatics are either inseparable or separable only by arbitrary stipulation.

\(^8\) It would be a mistake to suppose that every concept or conceptualization is, or need be, designated by a lexical item; instead, the linguistic conventions may be such that some conceptualizations do not serve as the semantic pole of any expression. For example, there does
specifying cognitive and conceptual structures, on one hand, and semantic analysis and
description, on the other; in the meantime, the philosophical import of this construct
derives from the thesis that construal inhere in content, i.e., that the cognitive ability of
construal is “built into the very fabric” of an expression’s content. Hence, in the previous
example wherein a famous student is transferred from Frege to Russell, the difference in
construal between (12a) and (12b) yields, ex hypothesi, a semantic difference; the two
sentences do not vary in their array of conceptualizations but do vary in their content
precisely because the situation is differentially construed. And because they vary
regardless of whether the array of conceptualizations is held constant, it follows that
fixing the facts about meaning fails to fully fix the facts about content—i.e., content is
not determined by meaning alone.

Subsequently, this construct has further revisionary consequences beyond the
shift from the determination arguments \(A\) to \(A'\). Since the content of an expression is not
determined by meaning alone, it now appears that meaning and how the world is are not
individually necessary and jointly sufficient determinants of the truth-values of a given
truth-bearer—at the very least, the cognitive processes comprising construal must also be
taken into account. Accordingly, premise (1’)—though not necessarily premise (1)—of
chapter one appears less truistic than previously suggested. But how does this bear on
either of the determination arguments \(A\) and \(A'\)? The easy solution would be to replace
any and all instances of meaning with content, given that the content of an expression is

not appear to be a convention for giving form to the idea of an inexperienced batsman who runs to
third base first, though the idea can certainly be conceived of. Similarly, it might be a mistake to
think that the broad inclusion of all kinds of mental experiences in the characterization of
conceptualization entails the Sellarsian view (e.g., McDowell, 1996) that experience is through
and through conceptual; for one could consistently hold that some experience is both non-conceptual
different.
at least one of its co-determinants and is the pairwise interaction of conceptualization and construal. Consequently, we are led to say that among the determinants of the truth-value of a given truth-bearer are the cognitive processes that interact to fix the facts about that bearer’s content, and thus its truth-value. Interestingly, for the determination argument \( A' \), the effect of the revision is only to implicate additional cognitive processes besides those by which conceptualization is explicated; yet, for the determination argument \( A \), the cognitive processes that interact to fix the facts about that bearer’s content directly determine its truth-value. Subsequently, this revision has the effect of forcing the proponent of \( A \) to replace the weaker conclusion (\( cm \)) with the stronger conclusion (\( cm' \)) of \( A' \), and thus ultimately collapsing the two arguments by showing how they each entail the same conclusion.

1.3.2. Domains, profiles, and designation. How, though, do conceptualization and construal actually interact such that they factor in content? An answer to this question was straightforwardly anticipated by Frederick Anderson, who wrote that meaning is a relation between at least two associated ideas, one of which is appreciably more interesting than the other (1933: 212).\(^9\) Treated in good Lockean fashion, Anderson’s remark amounts to an emendation of Locke’s signification thesis: rather than words signifying ideas, as Locke held, words (and expressions more generally) signify relations among pairs of what he called more and less interesting ideas. Reinterpreted within the context of cognitive grammar, the remark would suggest that the content symbolized by an expression is a relational structure, holding of at least two types of relata.

\(^9\) Anderson’s brief paper anticipates several of the directions that cognitive linguistics would later take, such as the metaphorical basis of mathematical and logical formalism of, e.g., Lakoff & Núñez, 2000).
More specifically, cognitive grammarians claim that the semantic function of an expression is to direct cognitive resources to a particular substructure within a cognitive domain—namely, its designatum or profile. Hence, a cognitive domain is the backgrounded portion of an expression’s content, whereas the foregrounded substructure within a cognitive domain is what is made conceptually prominent.

The profile of an expression determines its grammatical category (Langacker, 1987, 1991). For instance, a noun profiles a thing, understood as any region—i.e., a set of conceived interconnected entities—in some cognitive domain. A verb profiles a process, understood as a relation that is cognitively tracked across some temporal span or duration. Adjectives, adverbs, and prepositions profile atemporal relations. When an expression profiles a relation, differing degrees of prominence are imposed on its relata; as alluded to in chapter one, the subject of an expression designates the primary focal relatum—i.e., the trajector—while the object of an expression designates the secondary focal relatum—i.e., the landmark.

The relationship connecting cognitive domain and profile is a particular type of correspondence relation—namely, designation. The sense in which designation is a type of correspondence relation is the sense in which it relates structures—i.e., a structural relation. As cognitive grammarians construct it, designation has important conceptual connections with deixis or intended reference, but has nothing to do specifically with our conception of external reality (Langacker, 1987: 187; 1991: 345).

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10 Wolfgang Künne (2003: 4) distinguishes designation from signification. In his usage, designation is a relation between a singular term (e.g., truth, F-ness) and the individual it applies to; signification is a relation between a predicate (e.g., is true) and the property it applies to (e.g., truth). It is not clear to me that the distinction does explanatory work in a way that does not also dissolve the explanatory power of DESIGNATION as a single, unified construct.
It is an intra-conceptual correspondence relation in the sense that it relates conceptual structures.

The cognitive imposition of a profile on a cognitive domain is a special case of one type of construal—sometimes thought of as a sort of figure/ground organization—which involves according one conceptualization more prominence than another. Figure 5 below schematically depicts several straightforward examples, each of which illustrates the theoretical utility of CONTENT by making plain one of the ways in which the cognitive processes of conceptualization and construal interact.

A proper semantic analysis and description of, e.g., roof or binding at least requires specifying the immediate or ‘onstage’ focus of attention profiled by each expression; indeed a proper semantic analysis and description of any given expression minimally requires specifying the profiles imposed on a cognitive domain. In Figure 5, profiles are pictorially represented using a heavily marked line. Yet, as each picture makes clear, profiles are made possible only in virtue of their interrelations to cognitive domains and domain matrices. For example, a conceptualization of a circle understood as a set of points equidistant from its center is necessarily involved in specifying the curved

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#### Figure 5: Examples of cognitive domain/profile relations
segment profiled by *arc*; similarly, *axon* profiles the elongated part extending from hillock to terminal button, and thereby invokes a neuron as its primary cognitive domain.

The most fundamental cognitive domains are **basic domains** (similar to what Kant called *categories*), in the sense that they are a fundament of embodied experience which cannot be analyzed further (space, time, chromaticity, etc). All other non-basic domains are abstractions from them. Normally, a significant number of arrays of non-basic cognitive domains are invoked in specifying each profile: e.g., a *thumb* is the short and thick innermost digit next to the forefinger of a primate hand that makes possible the ability to grasp due in part to being opposable against the tips of the other fingers.

Collectively, cognitive domains comprise larger **domain matrices** that constitute the overall knowledge structures that can be called to mind by an expression. In the online processing and comprehension of expressions during token occurrences of communicative or expressive behavior—i.e., **usage events**—these collections of cognitive domains are constantly evoked as the basis for the designated profiles of those expressions. Indeed, on any given usage event, linguistic expressions only encode a small portion of the conceptual and cognitive structures on which they depend (Langacker, 1987: 66), since the full encoding of all domain matrices would be extremely uneconomical and would require a massive amount of computational power to achieve. Instead, the utility of expressions in usage events, then, derives from the fact that expressions allow speakers to utter a modicum of grammatical and lexical structure but still **evolve** and **prompt** a massive amount of content needed in apprehending the world. As Fauconnier nicely put the point, *language is only the tip of a spectacular cognitive iceberg, and when we engage in any language activity [...], we draw unconsciously on*
vast cognitive resources, call up innumerable models and frames, set up multiple connections, coordinate large arrays of information, and engage in creative mappings, transfers, and elaborations (1999: 96; see also 1997: xviii). Fauconnier’s concern here was with the theory of mental spaces, but it is worth extracting and emphasizing the more general point that the analysis and description of expressions requires a much richer understanding of the encompassing cognitive and conceptual structures—what Fauconnier calls backstage cognition—upon which those expressions are based (Langacker, 1987: 97–9).

Generally, any given structure in an expression amounts to a conventional way of accessing the knowledge embodied in certain cognitive domains and domain matrices. Yet, since the contents that figure in expressions do not necessarily figure in them equally or all at once, the characterization must include an non-arbitrary specification of which contents are actually encoded by speakers in a given structure. Semantic analysis and description is therefore concerned with the characterization of particular types of contents that structure expressions. In other words, it is therefore treated as the business of characterizing semantic structures $S_i, S_j, S_k, \ldots$—i.e., those contents that are (i) constituted by the designated profile within a cognitive domain, and (ii) cognized in accordance with linguistic conventions for the purpose of serving as the semantic poles of symbolic structures. Semantic structures are therefore subsumed under the notion of content as a special case. These and other constructs are diagrammed in figure 1 above.

1.4. The encyclopedic view of semantics
Both in principle and in practice, the full semantic analysis and description of any given expression can invoke an open-ended number of confederated cognitive domains of arbitrary complexity and possibly encyclopedic scope. That semantic analysis and description is done relative to the vast amounts of conceptual knowledge implies an *encyclopedic view* of semantics. According to such a view, there is no specific or sharp boundary that divides linguistic from non-linguistic knowledge. For example, the meanings of knee terms (*knee, kneel, patella*, etc.) can hardly be specified without presupposing or invoking ideas of the bend or middle portion of an animal’s leg, or the locomotive actions of which knees make possible, and possibly even musculoskeletal joint structure, etc.; the semantic value of *goalie* invokes various ideas of the goal (purpose) of certain kinds of games, plus general knowledge of ice lacrosse, hockey, soccer, and so forth (see Langacker, 1986a, 1988b.)

To consider a more illustrative example, the content of the expression *tongue* in the context of footwear profiles the conceptualization of material sewn into the vamp of a laced shoe and extending to its throat; but even once the context of footwear is specified or fixed, the characterization of its content can only be made sense of relative to many other cognitive domains pertaining to knowledge of footwear—what a VAMP or a THROAT is, when a shoe is and is not appropriately called *laced*, the possible materials with which tongues are made, etc. The characterization of the content of *tongue* also invokes physical conceptualizations like PRESSURE and teleological conceptualizations of CUSHIONING or SUPPORT, as well as background knowledge of the shape and dimensions of human feet. Other, more general world knowledge is also implicated, such as the

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anatomical conceptualization of the muscular organ located at the outset of some animals’ gastrointestinal tracts.

Plainly, the open-ended nature of cognitive domains makes the task of characterizing semantic structure extremely daunting. This is all the more so, given that most lexical items have a considerable array of interconnected senses: e.g., *knife* has distinct but related senses for cutlery, weaponry, surgical instrumentation, betrayal, etc.; *coffee* has the senses of being a brownish hue in color space, a social gathering, a hot beverage, a type of seed from a certain kind of tree, etc. Cognitive grammarians therefore acknowledge polysemy as the norm for frequently-used lexical items, and accommodate it as a natural and unproblematic phenomenon (Langacker, 1988: 50). Expressions are represented as being configured within a network of conventionally established and psychosocially entrenched senses clustered around a prototype, and linked together by categorizing relationships. An example is given by Langacker, who has diagramed a fragment of the lexical network for *ring* and *run*, reproduced here in Figure 6 below.

![Diagram of lexical network for senses of ring and run]

Figure 6: Fragment of the lexical network for senses of *ring*

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[^12]: See, e.g., Langacker (1986: 2); Soares da Silva (2003); Uehara (2003). The network model for lexical senses is said to incorporate research on prototype theory of categorization as a special case (see Langacker, 1991: 266).
In figure 6, the heavily marked box indicates a prototypical semantic value for the lexical category, since the senses or ‘nodes’ and their categorizing relationships (e.g., specificity, schematicity, abstraction, elaboration) differ in degree of entrenchment and cognitive salience and activation weight. For Langacker, an important point to notice is that a conventionally established and psychosocially entrenched (“default”) sense cannot be separated from the lexical network it anchors. Attempts to isolate a particular sense or node in its lexical network, or reduce the network to or equated it with that sense, typically results in highly artifactual semantic descriptions and analysis (1990: 3). The point is akin to the way in which a characterization of a semantic structure would be deficient if only a profile were specified without characterization of the cognitive domains providing for its designation. Also required for the comprehensive analysis and description of the network for a given lexical item is the full array of stylized expressions, idioms, and intimately related uses. For example, in addition to those senses immediately structured around that of a young female prototype, the full network for the expression girl may involve an array of senses for girlfriend, servant girl, lass, grrlfriend, covergirl, girly man, tomboy, girl scout, girl-next-door, girl Friday, and other expressions. Ultimately, this view of lexical semantics is sobering, making the explanatory task look as difficult as it actually is.  

13 Advancing a unique take on debates over lexical sense cardinalities, Jens Allwood invokes a construct of the meaning potential for a given lexical item, which he defines as the union of individually or collectively remembered uses (2003: 43; see also Langacker, 1986: 3; 2000: 26, 2001: 9)—i.e., the sum total of all information that has ever been conveyed in using it relative to a set of speakers. For Allwood, contexts of use create the conditions that determine how any given potential is activated, such that different ways of activating meaning potentials yield different answers to cardinality questions of lexical sense; Allwood concludes that different combinations of such information result in different determinables activated by lexical items under
2. The lexical semantics of alethic terms: an application

2.1. Truth-talk

Being predominantly Anglophone, many contemporary philosophical explanations and analyses of truth have focused, not on truth, but on certain alethic terms used to talk about it. Moreover, they are renowned for affixing their gaze, not on terms like truth (and much less so as it occurs in grand pronouncements, like the Hegelian truth is a great bacchanalian revel, with not a soul sober), but solely on a certain sense of the English term true. For example, in his momentous (but incongruously named) paper entitled Truth, John Austin defined the explanatory scope of theories of truth with characteristic verve: Pilate was in advance of his time. For ‘truth’ itself is an abstract noun, a camel, that is, of a logical construction, which cannot get past the eye even of a grammarian. [...] philosophers should take something more nearly their own size to strain at. What needs discussion rather is the use, or certain uses, of the word ‘true’. In vino, possibly, ‘veritas’, but in a sober symposium, ‘verum’ (1950: 111).\(^4\) Austin’s contextually determining conditions of use and convention. The construct MEANING POTENTIAL is a highly promising way to think about lexical semantics, even if its construct validity is unclear. According to Allwood’s version, it be impossible to fix the identity conditions of any given meaning potential; for if lexical senses are mapped one-to-one into monosemous meaning potentials, then specifying the lexical semantics for any given word is just to specify the union of all information which has ever been conveyed in using it; since no language user or linguist could possible have access to all such information, the meaning potential of an expression can at most be approximated but never actually be specified. But then, it appears that postulating meaning potentials solves the problem of underspecificity of meaning simply by overspecifying meaning potential.

\(^4\) See also Horwich (1990: 37); Goldman (1999: 41); Frege (1918/1956: 290). Likewise, Soames contends that ‘theories of truth should provide accounts of the content of familiar truth predications, while resolving the semantic paradoxes. Beyond this, and the attendant dissolution
prescription in relegating truth to a subject of lesser interest is, I think, a near-perfect barometer of the general orientation of contemporary theorists, who generally treat the explanatory task simply as one of spelling out what it is that speakers are saying or doing in using, mentioning, or ascribing certain locutions involving the default or prototypical sense of true.

As Frege noted and Austin affirmed, grammatically, the word 'true' appears as an adjective (1918/1956: 290), as in true sentence or true(σ). The observation is indubitably correct. But now a serious problem arises, since it is not at all obvious what the default or prototypical sense of true is, or whether this adjectival usage is better analyzed as a relational or non-relational predication. For example, it seems plausible to hold that the default or prototypical sense of true is its use in the dyadic, two-place predicate is true, which is—modulo a turn of phrase or two—that of representing something with maximal degree of accuracy or veridicality. I myself take this to be, prima facie, the default or prototypical sense. Hence, the term typically has the sense of being aligned with how things are or of adequately relating to the reality described (i.e., as in its nominalization in the Thomistic slogan veritas est adequatio intellectus et rei).15

15 of confusions, it is best not to expect too much’ (1984/2001: 429). Soames interest is with the term true, especially as it functions in Liar paradoxes. However, there is simply no good reason (hence the reason why Soames failed to provide one) to have a priori low expectations, and thus no good reason to suppose that a theory of truth should do nothing other than specify the meaning of true and solve the Liar and other paradoxes.

The Thomistic slogan seems to have been intended as a paraphrase of Aristotle’s maxim, which suggests that the confusion of it as a statement of the correspondence theory has a long history. Commenting on the Metaphysics, Avicenna wrote that truth is the signification by the disposition of speech or understanding of an equal disposition in external, extant entities (veritas […] intelligitur disposition dictionis vel intellectus qui significant dispositionem in re exteriore cum est ei aequali; see Gilson, 1955: 646 fn. 26). In turn, Avicenna’s claim seems to have been cited with approval by William of Auvergne (intentio veritatis […] ait Avicenna, est adequatio orationis et rerum, whom Hill (2002: 128–29) takes to have originated the formulation that Aquinas made popular. Alternative credit for originating this view has been given to Isaac Israeli (Mucke, 1933).
Accordingly, *true* combines with the passive *be* to form a finite clause for constructions like \( \sigma \text{ is true} \). For the cognitive grammarian, the content of *be*—as with any and all verbs— involves the designation of a schematic process, where *process* is defined as a relationship scanned sequentially over time. The form *be true* is the present imperfective, and hence the process designated is one conceived of as unbounded—i.e., a stable, perhaps static, situation perpetuated or otherwise enduring over some indefinite temporal span. Not everyone concurs. Frege, for instance, held that *is true* is not a two-place relational predication, but a monadic one-place predicate that is used as a sort of clausal commendation. Frege concluded that truth cannot be a relational property of any sort; in particular, it cannot be a correspondence relation. As it were, this was one of Frege’s more (uncharacteristically) bad inferences— analogous to the claim that kinship-predicates like *being a son* or *is a sister* are at most one-place predicates that denote non-relational properties of people, despite the obvious fact that one is a son or a sister of *someone* and only in relation to them. Despite such a gaffe, many have supposed with Frege that the default or prototypical sense of *true*, which Austin prescribed as the subject of explanation and analysis, is this intimately related use as a one-place predicate. Of course, Frege was also skeptical about whether the terms used to express the concept of truth even denote a property at all, wondering, *so it seems then, that nothing is added to the thought by my ascribing to it the property of truth*. [...] May we not be dealing here with something which cannot, in the ordinary sense, be called a quality at all? (1918/1956: 291–92). Many have also followed Frege here as well, supposing that *true*— despite overtly appearing to have the syntactic form of a predicate—does not denote a property at all; rather, its hidden grammatical structure is that of an anaphoric or
sentential operator (e.g., *it is true, truly, that is true*). Needless to say, it is unclear which sense lays more claim to being default or prototypical.

The issue is further vexed, since the sense of *true* in the dyadic predicate is affected by the preposition it combines with. The term *true* in the predicate *is true to* has the sense of fidelity to some target, or of faithfully relating something to an ideal or idealization, as in locutions like *true to the facts, is true to the cause, and is true to form.* Alternatively, there is also the sense in which *true* appears in locutions like *is true of,* which are typically used to designate a more straightforwardly referential relation between predicates and their denotations (tropes, properties, etc.), as in what is *is true of the parts is not necessarily true of the whole.*

Besides its adjectival use as either a one- or two-place relational predication, *is true* also has a confirmatory use, such as using *true* for the purpose of remarking on the persuasiveness or import or novelty of a previous sentence (e.g., *how true!*), or for sarcastic purposes or in response to a previous utterance deemed unremarkable (e.g., *quite true*), or as a concessive, where *true* has a use as a discourse marker to introduce or make salient some statement for the purposes of neutralizing its import. Other related uses and senses of *true* involve genuineness (e.g., *true gold, it was truish sentiment in its way*), uninhibitedness (e.g., *being true to yourself means showing your true colors*), and legitimacy (e.g., *true heir*). Another sense is that of the endpoint of a continuum (e.g., *anything less than fully true is false, the truest of the breed*)—one which can also pertain to ideal/real transformations (e.g., *may all of your dreams come true, a love that left no gentle wish to true*). This latter example involves the related, if somewhat circumscribed, sense of *true* as making straight or aligning:
(14a) The front wheel is true although the back still wobbles a bit.
(b) If it spins true, then there is little reason to worry about the spokes.
(c) It is true (…the axle, that is).

In (a)–(c) here, *true* means that the objects are or have been corrected or adjusted—specifically, so that they will rotate along an perfectly straight vertical plane, or, more generally, that the object has become aligned with a target or goal state. It therefore shares with the default sense an array of cognitive domains pertaining to the property or condition of being corrected, being in a state of alignment, or being uncrooked (e.g., as in *to correct a mistake, finally corrected the equation*). Of course, such uses of *true* are non-default and uncommon outside of discourses like cycling, woodworking, or billiard table repair; but the property of being true is predicated of an object in roughly the same way in which being true can be predicated of a truth-bearer, with *true* playing the same grammatical role in both cases—as a predicate, antecedent of a conditional, anaphor, etc.

The main difference lies with what Talmy has called a *parameter of palpability* (2000: 141)—i.e., whether it is being applied to concretes object like tires or to abstract objects like propositions. It should be no surprise, then, that *true* in this latter sense can undergo metaphorical extension, as in

(14d) If bicycle wheels can be trued, so can theoretical frameworks.

Also of interest is that *true* has also achieved conventional status as a verb or verb compliment, as in

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16 Note, however, the asymmetry when in verb suffix position: e.g., one can *overcorrect* as in overcompensate while driving, but *overtrue* has no such status as a conventional linguistic unit.
(15a) Bixby trued bike wheels for all the neighborhood kids using his new toolkit.
(b) Kelly showed the customer how to true the tires on his bike.
(c) This bench sander is ideal—quite long pieces can be trued with it.

As (c) shows, these uses can be suffixed with a variety of grammatical forms. For instance, besides -ed, it can serve componentially in the scalar multi-place relational predicate truer (e.g., is truer than you think, was much truer of the first series), as exemplified by Weatherson’s (2005: 47) recent thesis,

(15d) Some sentences involving vague terms are truer than others,

as well as in adverbial intensifiers (e.g., truly despicable, verily). Actually, the range of constructions in which the root true serves as a component is quite large. The Oxford English Dictionary lists, inter alia, true-born, true-bred, truefast, trueful, trueish (alt., truish), trueman, trueness, and trueship. The same applies to its nominalization: e.g., truthable, truthhead, truthify, truthless, truthlike, truthly, and truthy.

Many other metaphorical extensions—particularly in their nominalized forms, provide other clues into the lexical semantics of truth-talk. Truth can be used as a singular term, or as either a count or a mass noun, respectively:

(16a) The truth was simply a matter of betrayal.
(b) The opposite of a correct statement is a false statement, but the opposite of a profound truth may well be another profound truth.
(c) There was little truth to the Bush administration’s exaggerated claims about biochemical weapons in Iraq.
In (16a), *truth* is a singular term in both *the truth shall set you free* and *truth is the first casualty of war*; however, whereas in the former it is metaphorically conceived of as a dynamic actor or agent replete with causal powers, it is metaphorically conceived of as a static or passive victim/patient with moral status in the latter. Two parallel idiomatic cases include *the dark cover of lies disappeared once the truth came out* (where *truth* is, again, a dynamic actor with causal powers but this time conceived of in phenomenological terms of light or illumination or uncoveredness (e.g., *en la luz de la verdad*)), and *stretching the truth is not being true to the facts* (where it is, again, a static or passive patient that is acted up in the sense of elasticity, or of being extended or diluted). The metaphorical extension from source domains of spatiotemporal distance also apply to *truth* as singular term profiled against a target domain: in expressions like *close/far from the truth*, the semantic structures are conceived of in terms of distal locale, unlike the proximal locale in *the approximate truth of some theories is good enough*. The concepts *approximate* or *partial truth* also schematically invokes a part/whole relation in phrases such as *jokes often have a basis in truth* or idioms like *kernel of truth*. *Truthiness*, for instance, was named the word of the year by the American Dialect Society for 2005.

2.1.1. *Truth-talk as data to be explained.* The view of semantics emerging from cognitive grammar has important implications when applied to the study of *truth*-talk. For instance, it implies that Austinian attempts to confine the semantic value of the term

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17 See Heidegger (1927/1962: §44) for an interesting phenomenological characterization of the metaphysics of truth in terms of *uncoveredness* and *aletheia*.
true to its prototypical or default sense, or isolate its description from that of the lexical network within which it figures, betrays a misunderstanding of the explanatory task precisely because the semantic value of a term is not a specific sense independent of, and isolable from, other senses with which it is interrelated. Perhaps such attempts would not be problematic if the term true was anomalous in the sense that it was not part of any such lexical network in English; of course, nothing could be further from the truth—true, like most other frequently used expressions, takes its place as the prototypical or default sense in a moderately large lexical network of alethic terms, including fact- and reference-talk. Furthermore, lexical data suggests that not only do alethic terms form a polysemous lexical category, but the very term true itself is polysemous.

Accordingly, one of the facts involving truth that any comprehensively adequate theory of purporting to analyze and describe the conceptual and lexical organization of terms like true and truth must explain is that alethic terms form a fairly elaborate lexical network around a prototypical sense of true, which is itself polysemous. Subsequently, it stands to reason that alethic terms, including true, should therefore be described within the context of the lexical category that they comprise, and according to how they are naturally found in language. For instance, veraciousness, veracity, verisimilitude, veridicality, verity, and veriloquence are alethic terms intimately related to truth-talk that must be countenanced, even if only to show that they are derivative. And yet, when it comes to truth-talk, virtually all philosophers simply relegate non-default or non-prototypical senses outside of the scope of philosophical inquiry. Consider, e.g., Nicholas Rescher and William Alston:
Philosophical theories of truth in general deal exclusively with the truth of statements or propositions. [...] Other uses of ‘true’ in ordinary language (such as its adjectival use in contexts like a true friend or a true line or a true artist) are beside the point of concern. The basic aim is to clarify the meaning and application of expressions of the form ‘p is true’ or ‘it is true that p’, with ‘p’ representing a statement or proposition. (Rescher, 1973: 1)

The realist conception is [...] expressed by the predicate ‘true’ only in some of its uses, namely, those involved in attributions of truth to propositions, statements, and beliefs. There are, of course, other uses of the term. It sometimes means something like genuine, as we speak of ‘a true friend’, sometimes faithful, as in ‘true to the cause’, sometimes legitimate as ‘the true heir’. I will not be concerned with these other senses. (Alston, 1996: 6 see also 2001: 14, 2002)

My claim is that this neglect of the full range of expressions constituting truth-talk is nothing more than arbitrary, unprincipled stipulation—a sort of “lexical agnosia,” which leaves one blind to the network of related senses and categorizing relationships among them. Of course, Alston and Rescher are hardly alone on the matter—it has a long history. Frege, for instance, declared that the relevant usage is that kind of truth which is the aim of science (1918/1956: 290) and Frank Ramsey held that alternative uses are derived and metaphorical and are not part of the problem, as he put it, that theorists should discuss (1927: 153). For the cognitive grammarian, this move from simplifying idealization to arbitrary and stipulative neglect will likely end up looking sadly dogmatic.

The rationale for this point was articulated by Ronald Langacker in his remarks on the descriptive adequacy of theories of language and thought. Langacker presents several major constraints, two of which are particularly relevant here—complexity and descriptive naturality. Firstly, the explanation of truth-talk, like any other phenomena falling within the explanatory scope of theories of truth, should acknowledge, and not shy
away from, complexity. That phenomena to be explained are complex often motivates theorists to abstract away from data sets through processes of simplification, reduction, and idealization; in and of itself this is unproblematic—i.e., part and parcel of linguistics, philosophy, and normal cognitive science. But while selective prejudice toward certain subsets of data may permit theorists to get a handle on complex phenomena, theorists should take care to not treat the simplifying assumptions and idealizations as exhaustively descriptive, lest they distort the very phenomena they are trying to describe. Further, in order to explain linguistic phenomena, data must not be manipulated or contorted for the purposes of easing explanatory burden. For Langacker, describing some linguistic phenomenon naturally means treating grammatical and lexical structure as ‘almost entirely overt’ and taking it to be as it manifests in natural languages.

I regard a description as natural to the extent that it deals with data in their own terms, with full regard for the richness, subtlety, and complexity characteristic of phenomena. I regard a description as unnatural, or artifactual, to the extent that it deals with data in a way that does violence to their intrinsic organization, however convenient this may be for the analyst. Artifactuality can be a sin of omission, done by the linguist who extracts a phenomenon from its supporting matrix and treats it in isolation as an autonomous entity, or when he focuses on one of its dimensions to the exclusion of all others. It can also be a sin of commission, done by imposing on the data various constructs or boundaries that have no analog in reality. (1987: 13-14)

A straightforward example of the sort of artifactual description and analysis alluded to is Robert Brandom’s (1994, 2002) version of prosententialism. As developed by Dorothy Grover (1975, 1992) and colleagues, prosententialism develops a purely syntactical analysis of the concept TRUTH whereby all ordinary truth talk is ultimately explained in terms of the prosentential roles occupied by true and false (understood as anaphors). For
Grover, the locutions it is true and that is true are the paradigmatic expressions of the role of truth in English, functioning as syncategorematic fragments with respect to sentence nominalization. When they do so function, prosentential uses of true or false are grounded in Grover’s sense, i.e., that is true is grounded iff it inherits its sentential meaning from some anaphoric discourse antecedent, and is ungrounded otherwise. Brandom gives a similar analysis that uses an operator schema,

\[(op) \quad \text{it is true that } p \text{ iff } p\]

to emphasize that true is a sui generis prosentence-forming operator which functions anaphorically with regard to antecedently nominalized sentence tokens. As a result, Brandom is forced to the conclusion that alethic terms are semantically and grammatically ‘odd’ because they exhibit an illusory surface grammar as predicates. Moreover, the analyses of Grover and Brandom are only plausible when the data sets about the semantics of alethic terms are severely curtailed. In particular, the polysemy of alethic terms is not recognized, and idioms and metaphors about alethic phenomena are swept under the rug. Brandom is at least explicit in confessing, even if fails to be rationally influenced by his confession:

*It should be acknowledged that this anaphoric account of the use of traditional semantic vocabulary does not underwrite all of the idioms that have pressed those expressions into service. There is one sort of truth- and reference-talk that is not recoverable on a prosentential and pronominal rendering of [the terms] ‘true’ and ‘refers’. Talk in which the substantive ‘truth’ appears in a way not easily eliminable in favor of true will receive no construal by such theories. Yet, philosophers do say such things as ‘truth is one but beliefs are many’ and ‘truth is a property that is definable in the language of some eventual physics’, which are outside*
the scope of the account of true offered here. [...] On the anaphoric account, although ‘is true’ has the syntactic form of a predicate [...] the grammatical and semantic roles these expressions play are not those of predicative and relational locations. Their grammar is quite different; they are operators forming anaphoric dependents—namely prosentences and anaphorically indirect descriptions. (1994: 323)

Motivated by an extremely radical form of insubstantivism, Brandom’s exclusive deployment of (op) is a minimalist view that turns out to be inadequate to explain any other alethic terms other than the anaphoric use of one sense of true. To wit, Brandom’s acknowledgement of the limitations of prosententialism is Janus-faced, since he treats the failure to recover talk of the nominalization truth and other alethic terms and idioms as virtue rather than vice. Such explanatory failure is just the happy “cost” of insubstantivist views about the nature of truth.18

Yet, Brandom—like most other philosophers—fails to acknowledge the polysemy of alethic terms—particularly, true. A direct consequence is that attempts to account for the meaning of true, and of alethic terms more generally, using only traditional explanatory resources (e.g., biconditional T-schemas) founder, precisely because they do not fix the facts about the semantic value of true. The extent of this

18 It is worth noting that Grover seems to be undergoing some sort of Wittgensteinian evolution in her views on language. The problem, however, is that the evolution has not been extended to her particular views on truth-talk. In a recent paper, Grover (2005) articulates a wonderful argument to the effect that Liar sentences are of limited philosophical interest, as she puts it—alogous to division by zero—which do not stand in need of resolution. Part of the argument turns on the observation that Liar sentences are not, and cannot, be used in natural language to communicate, and her observation turns on an appeal to what communicative uses of truth-talk in natural language are like—an understanding of what she calls living languages, or what cognitive grammarians might call a usage-based model: we are the creators of our ever-evolving language, through our creative introduction of new uses of words, as we face a variety of new demands on our communicative resources (2005: 201). Having shown that communicative uses of truth-talk in natural language are non-trivially richer than what can be accounted for on prosentential analysis, I entreat Grover to pursue her living language view further, even if it jeopardizes prosententialism (see Wright & Pedersen, submitted).
inadequacy correlates with the degree to which the category expands to include additional data about *truth*-talk more generally.

The acknowledgement of polysemy—both at the level of default or prototypical sense, or at the level of lexical network—has radical consequences, I think. Firstly, acknowledgement of polysemy is an acknowledgment that, at least potentially, there is more than just one way of being true beyond the default way of being true, which consists in being an atemporal relational property designated by the dyadic predicate *is true*. Hence, accounting for this data involves consideration of issues of pluralism, and the idea that the multiple related senses of the lexical category of *truth*-talk reflect a multiplicity of features or other designata. Secondly, for any given sense within the lexical network of alethic terms, a substantive account is possible. For instance, I have represented the grammatical structure of the adjectival sense of true (i.e., *true sentence*) in figure 7 below.
In figure 7, two associated semantic and phonological structures are assembled, as previously described, with correspondence relationships as components of the construction \([\text{TRUE}(\sigma)]/[\text{true sentence}]\). Here, the semantic pole of true involves the conceptualization of a trajector as being located at the endpoint of a scale of veridicality.

Thirdly, the acknowledgement of polysemy suggests that any and all T-schemas do not fix upon a particular semantic value. Where this entails that platitude-based strategies that invoke T-schemas as their basic explanatory resource are inadequate; and this suggests
that minimalism about truth is in trouble. I expound on this claim in chapter four. Along with the possibility of a substantive account of any given alethic term, it also suggests that deflationism might be as well.

2.1.2. **Deflationism and the meaning of ‘true’**. The analysis of *true* given in figure 7 is both substantive and non-exhaustive, and should be troubling for deflationists. While there is no consensus, it is widely acknowledged that any characterization of **deflationism** should begin and end with a contrast with the types of theories it aims to deflate—i.e., inflationary theories, such as the correspondence theory of truth. As J. C. Beall & Bradley Armour-Garb (2006: 1) rightly note, this makes deflationism a generally negative view. Following Horwich (1990) and Kalderon (1997), they go on to suggest that the overarching positive thesis of any deflationary theory of truth is the *Fundamental Equivalence Thesis* (*D*):

\[
(D) \quad \text{True}(\sigma) \text{ and } \sigma \text{ are fundamentally equivalent.}
\]

What does it mean to hold that *true*(\(\sigma\)) and \(\sigma\) are fundamentally equivalent, and thus to be a deflationist about truth? After all, *true*(\(\sigma\)) and \(\sigma\) are not, e.g., rhetorically nor grammatically equivalent. Beall & Armour-Garb rightly note that differences between various deflationary theories result from how this question is answered, but go on to suggest that those various deflationary theories are unified by the following three claims. Firstly, to endorse (*D*) is to hold, inter alia, that *true*(\(\sigma\)) and \(\sigma\) are equivalent in the sense that ‘*they enjoy the same semantic status*’. In other words, (*D*) can be partially elaborated by:
(D₁) True(σ) and σ are fundamentally meaning-equivalent.

According to this elaboration of (D), true(σ) and σ are ‘fundamentally equivalent’ because they are intersubstitutable without effecting a change in meaning. Presumably, what this fundamental meaning-equivalence amounts to is that to say that true(σ) and σ ‘enjoy the same semantic status’ is to say that they have one and the same semantic value—i.e., they are synonymous. If so, then the elaboration of (D) can be understood simply as (D₁):

(D₁’) true(σ) =_{syn} σ.

Secondly and thirdly, the enjoyment of this ‘same semantic status’ is both conceptually and explanatorily basic; hence, (D) has two further elaborations in addition to (D₁):

(D₂) The fundamental meaning-equivalence between true(σ) and σ is conceptually basic.
(D₃) All explanations about truth proceed on the basis of the fundamental meaning-equivalence between true(σ) and σ.

The property of being conceptually basic is understood in terms of being analytically brute—i.e., the fundamentally material equivalence between true(σ) and σ is conceptually basic because there is no more primitive analysis that can be given for the concept TRUTH, no concepts that are more profound or simpler in terms of which TRUTH can be
Similarly, to be explanatorily basic is to be a primitive explanatory resource that drives all explanantia for any given alethic phenomenon.

Assuming that \(D_1\) elaborates \(D\) and that \(D\) is the overarching positive thesis of any deflationary theory of truth, then deflationism is in trouble; for while \(true(\sigma)\) and \(\sigma\) might uniformly exhibit the same truth-value, or have all the same consequences and entailments, they do not mean the same thing. One obvious reason why is that the overall configuration in figure 7 is neither identical or equivalent to the particular component in the bottom left corner. Relatedly, another obvious reason why is that \(true\) as it occurs in the construction \(true(\sigma)\) would need to be fully asemantic in order for \(true(\sigma)\) and \(\sigma\) to have the same or equivalent meaning; i.e., it would have to be the case that \(true\) makes no semantic contribution to \(\sigma\), and thus have no meaning independent of \(\sigma\). Yet, since \(true\) does mean, then it is not fully asemantic; hence, \(true(\sigma)\) and \(\sigma\) cannot be synonymous, meaning-equivalent, or otherwise have the same meaning. So \(D_1\) is false. If any equivalence holds of \(true(\sigma)\) and \(\sigma\), it is at most some sort of logical equivalence, not a semantical one. Moreover, if the fundamental equivalence between \(true(\sigma)\) and \(\sigma\) is not a semantical one, then a fortiori it is not a fundamental meaning-equivalence that is both conceptually and explanatorily basic.

3. Cognizers’ discriminatory abilities to make truth-conducive judgments

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19 This is roughly the position of Davidson (1996). Davidson argued for \(D_2\), claiming to be only marginally sympathetic with deflationism, and less so with inflationism.
Speakers can generally discriminate between the class or category of truths and its complement with great facility. In considering those cognizers who are also speakers, and insofar as we respect—at least initially—the distinction between truth and truths, we could put the same point by saying instead that such cognizers can generally discriminate whether or when something is true. That is, cognizers generally know a truth when they see one. That is an awkward way of speaking; but suppose we understand this discriminatory ability as an ability to make truth-condusive judgments. In chapter one, I suggested that much recent work on truth has taken the overarching theoretical endeavor to be explanation. So, what might explain that discriminatory ability?

One abductive inference is that there is some feature $F$—namely, \textit{truth}—had by all and only the truths, and that cognizers are good feature-detectors. On such an inference, the feature appealed to plays a non-trivial explanatory role, since it is the sensitivity to this feature that, at least in part, explains this particular discriminatory ability. I think there is something worth liking about that inference, though it would be much more credible were it to be enriched with a detailed story about what sort of feature-detection mechanisms would need to be in place to make possible the discriminatory ability. Some noises in that direction have been made, though nothing approximating any such story; if they have anything in common, it is the idea that the sort of feature-detection mechanisms that make possible the rarified conceptual ability to discriminate whether and when something is true must be parasitic on more basic feature-detection mechanisms that make possible perceptual abilities.\textsuperscript{20} Momentarily, I will

\textsuperscript{20} See, e.g., Smith (2000); Prinz (2004); Barsalou (1999).
develop a notion of judgment that is highly compatible with that idea. In the meantime, however, let me first mention an alternative explanation.

3.1. The commonsense conception

Alethic concepts like TRUTH, SATISFACTION, CORRECTNESS, VERIFICATION, and VERISIMILITUDE are tightly interrelated, though the “package-deal” view of concepts is not limited those interrelations to alethic concepts alone. For holists, alethic concepts like TRUTH, along with semantic concepts like MEANING and metaphysical concepts like REALITY, are sometimes held to be ‘sticky’, to borrow Quine’s quip: they stick together. And so they should be analyzed and described together. In his later period, Davidson (1996: 264) certainly seemed to think as much; I think so too, but that hardly makes for a quorum: many philosophers are of the persuasion that the best thing we do for our theories of alethic concepts—TRUTH, in particular—is to provide them with a good solvent (e.g., Horwich, 1990).

Hence, an alternative explanation is that cognizers possess a universal folk theory of truth and other alethic phenomena—what I’ll call the commonsense conception C—the deployment of which makes possible truth-conducive judgments. The inferential route to this explanation can be made explicit with arguments like the following.

(1) Any truth-conducive judgment (i.e., a is P) involves the application of alethic concepts.
(2) An alethic concept ci is a node in an organized network of other such concepts.
(3) An organized network of alethic concepts is, or is tantamount to, a (folk) theory of truth and other alethic phenomena C.

∴(4) Therefore, a truth-conducive judgment is possible only on the basis of just such a theory C.
According to this argument, we can explain cognizers’ abilities to make veridical or truth-conducive judgments by positing their possession of $C$. The activation and deployment of numerous types of alethic concepts comprising $C$ is part and parcel of how cognizers obtain and evaluate information about what is the case, given the ways the world is; and without a tacit comprehension of them—so goes the explanation—cognizers would lack knowledge of how, when, and under what conditions to make truth-conducive judgments.

To be clear, both $C$ and the alethic concepts comprising it should be understood as theoretical posits constructed by theorists to help explain cognizers’ abilities to make veridical or truth-conducive judgments—i.e., part and parcel of a (theoretically-dedicated) explanans. Consequently, it remains to be seen how closely those posits track or approximate the ordinary, unintellectualized mental experiences that individual cognizers actually achieve. Yet, assuming that the argument motivating them has something to recommend it, these posits seem able to do some explanatory work.

For one thing, $C$ potentially serves as a sort of “theoretical workbench” for further theoretical development—i.e., a point of departure upon which to construct more formally sophisticated, technical, or otherwise eccentric explanations of truth and other alethic phenomena. In that capacity, it potentially serves as an important constraint on theory construction. For however rarified an analysis it ends up with, an alethic theory positing $C$ should at least be able to trace the route back to the alethic concepts comprising it; and on the assumption that those concepts track the ordinary unintellectualized conceptualizations that cognizers actually achieve, such a theory
should subsequently be able to demonstrate that they have actually explained the original, target phenomenon—i.e., cognizers’ ability to make truth-conducive judgments (Toohey, 1939: 492; Lynch, 2005: 35, forthcoming). Positing C, then, helps to delineate the rational space of theory construction by providing, inter alia, a crucial meta-theoretic norm for comparison.

And yet, the explanatory work achieved by positing C is of limited utility without more detailed specification of the nature of the posit itself. In that case, the construction of a theory that specifies the nature of C itself must adequately specify, a fortiori, the network of alethic concepts that comprise it and their relationships. So, we need some insight into C itself—its structure, organization, and constituents. I’ll discuss in detail one theory—namely, alethic functionalism—that attempts to provide such insight in §3.4 of chapter three.

4. Constructing judgments

4.1. The cognitive basis of veridical linguistic constructions

The previous two sections specified some of the basic theoretical commitments and constructs of cognitive grammar relevant to the study of truth, and then applied them to the lexical semantics of alethic terms. In this section, I briefly canvass a few additional cognitive processes besides the imposition of a profile on cognitive domains, and focus on one in particular that is relevant to truth—namely, judgment.
4.1.1. Brief overview of additional cognitive processes. Like conceptualization, the ability to construe is to be analyzed as a class of cognitive processes. Within such a class, there are different types or kinds of processes. Langacker (1986a, 1987, 1988; see also Croft & Cruse, 2004) has discussed several, many of these processes are focal adjustments involving selection—i.e., processes by which we attend to aspects of experience that are task-relative and purpose-relevant, and ignore other aspects of experience that are irrelevant. For instance, the cognitive imposition of a profile on a cognitive domain is a special case of directing or adjusting cognitive resources toward a particular substructure in order to select it as an explicit focus of attention.

Another type of focal adjustment involving selection is the imposition of specification, abstraction, or schematicity on the various possible designata within a cognitive domain. For example, something can be described as a macbook pro, a laptop, a computer, a machine, or as an entity most generally. Each of these successive descriptions increases in its degree of schematicity, and does so by introducing different designations within various domain matrices that serves as its basis. The introduction of different designations incurs various constraints about which structures can be cognized more or less specifically. (Indeed it seems to be inconceivable, and therefore impossible, that any given expression could fail to incorporate or otherwise fail to implicate some degree of “granularity” or resolution.) Hence, the expression laptop, for instance, involves as its semantic pole content that obtains only in virtue of a cognitive process that partially determines what particular value the meaning of that expression will have along a parameter of specification, abstraction, or schematicity—one that is less schematic than
the content for computer, or more abstract than that for macbook pro, or less abstract than that for entity.

As a type of focal adjustment, specificity plays out in increasingly complex ways as the symbolic structures involved in composite expressions are assembled and interact. For example, in the sentence

\[(17) \{\text{someone/ the author}\} \{\text{marked/ scribbled/ inscribed}\} \{\text{something/ their name/ some combination of alpha-numeric characters}\} \text{ in my } \{\text{book/ textbook/ copy of the 1}\text{st edition of Matter and Consciousness}\},\]

the degree of abstraction or specificity imposed on the various conceptualizations can dramatically alter the semantic value of sentence (and thus potentially its truth-value). The understanding of someone having marked or scribbled something in my book prompts or evokes different conceptualizations than does the author having scribbled or inscribed their name in my copy of the 1\text{st} edition of Matter and Consciousness.

Two further, related types of focal adjustment of selection are the processes by which either scale and scope are imposed on conceptualizations. For example, two contents might be otherwise exactly similar except by way of difference in scale—expressions like lake and pond, for example, both designate a (more or less) identical conception of a body of water, but differ in content to the extent that that the body of water thus conceived is construed as differing slightly in volume. We might put the point by saying that conceptions of lakes are conceptions of ponds on a larger scale. As Langacker put it, an expression of the form ‘A is near B’ or ‘A is close to B’ is equally appropriate for galaxies, nations, objects in a room, and atoms in a molecule, indicating
in each instance that A lies in the neighborhood of B. But what constitutes a neighborhood? The absolute distances vary enormously […] (1988: 70). Interestingly, it seems that even the very same expression can differ in content to the extent that scale is differentially imposed. The expression handbook, for example, involves the conceptualization of a book of a certain size; yet, the content of handbook in the definite description The Blackwell Handbook of Pragmatics involves the conceptualization of a book on a much larger—grander, perhaps—scale than it does in The Member Handbook for the Font Discussion Group of Indianapolis.

Besides the cognitive processes involved in imposing scalar differences, the imposition of scope yields other interesting differences in how conceptualization and construal interact such that they factor in content. A given content involves adjustments in scope whereupon different cognitive domains are selected to function as the basis for the profile of an expression. For example, terms for body parts are a good, stock example. End of a fingertip, end of a finger, end of a hand, end of a arm, and end of a body all profile the same conceived region, but differ relative to the imposition of cognitive domains against which that conceived region is profiled; hence, end of a finger involves a narrower scope than does end of an arm. Nested locatives, in which a search of the location of a subject or an intended referent is successively confined to certain domains—what Langacker (1987: 286), following Bruce Hawkins, calls a search domain—provides yet another good, stock example relevant to imposition of scope.

(18a) Gide is between Faulkner and Cormac McCarthy, on the top shelf, in my office, on the seventh floor of H&SS.

(b) On the seventh floor of H&SS, in my office, on the top shelf, between Cormac McCarthy and Faulkner, is Gide.
Ignoring issues of metonymy for the moment, the same array of conceptualizations is involved in each sentence, though they differ in the way they are scanned (which, by definition, yields a difference in content). Phenomenologically, the array of conceptualizations constituting each sentence are organizing to achieve the effect of “zooming out” and “zooming in,” respectively. For each locative expression, the scope of locative preceding it delimits what substructure is profiled, and indicates a domain or locale within which to search. Scrambling the order of the component locative expressions creates cognitive disarray.

So-called *reference-point constructions* (McKenzie & Nelson, 2003; Langacker, 1993) provide a similarly relevant class of examples, in which cognizers select a conceived point of reference and scan sequentially from it, as in sentences *the glass is half empty* versus *the glass is half full*. As Langacker (1987: 145) has observed, the cognitive process of scanning can be sequential, as in *the Roman Empire declined*, but can also be summary scanning, as in the deverbal nominalization *the decline of the Roman Empire*. Fictive motion sentences, such as (19)–(21) provide yet another (Langacker, 1986b).

(19a) The ski lifts in Kelowna slope upwards much more steeply than they do in Ottawa.
(19b) The ski lifts in Ottawa slope downwards much less steeply than they do in Kelowna.
(20) The soil reddens toward the west.
(21) The mountain looms large as you get up close.
In these sentences, a motion verb is used to describe a stationary or static situation, and evokes the conceptualization of scanning through the scene in one direction or another.

Besides the imposition of scope, scale, and scanning, various other cognitive processes are involved in determining the content of an expression. Filtering, weighting, and gauging relevance are commonly discussed processes; framing is another, in which a coherent body of knowledge or conceptual system of concepts is used to activate certain concepts and cognitive routines (McKenzie & Nelson, 2003; Fillmore, 1985). View- or vantage point and the imposition of perspective on conceptualizations are also stock examples. In Tommy walked {through/ across} the field, for instance, the selection of one preposition reveals a difference in how the scene or situation is being conceived—i.e., as one in which either the vantage point is behind the subject and following him as he walks, or above him viewed from farther away.

4.1.2. Judgments as Kantian syntheses of cognitive contents. The foregoing in no way does justice to the rich and complex analysis and description of conceptual and cognitive structure and function and that cognitive linguists have provided—Langacker’s work on comparison and recognition (1987), fictive or virtual motion (1986b), subjectification (1990b), summary scanning (1988b) transfer, etc.; Fauconnier’s work on compression (1997; Fauconnier & Turner, 2002), etc.; Talmy’s work on force dynamics (2000: 409 ff.), etc. Rather than continue to rehearse these theorists’ analysis and description of the cognitive processes that factor in semantic analysis and description, I will focus on one process that is often discounted but is relevant to the explanation of truth—namely, judgment. It seems to me that cognitive linguistics is missing a notion of
judgment, the characterization of which should go some way in rectifying the second lacuna mentioned in chapter one.21

Various theoretical and philosophical characterizations are available, some of which are less appropriate.22 Arguably, the notion of judgment most relevant to the intersection of cognitive linguistics and the study of truth, and which subsequently avoids the problem of low construct validity, is the Kantian notion. Insofar as truth and other alethic phenomena were discussed at all in The Critique of Pure Reason (1787/1996) the Jäschke Logic (1800/1992) and Kant’s other seminal works, that discussion was embedded in a rich and substantive explanation of the structure of human cognition and its relation to reality. Within this thoroughly cognitive context, Kant held that the judgment (Urteil) is a particular kind of cognition or cognitive state: the mediate cognition of an object, that is, the representation of a representation (A68/B93). His term cognition [Erkenntnis] was used to mean any representation [Vorstellung] that consists in a determinate relationship between what is given in receptivity and its conceptualization as understood in acts of spontaneity (A19/B33, A50/B74). This determinate relationship resembles what I have

21 In space grammar, judgments are defined as expressions of grounded predicational strips; grounded predicational strips are, in turn, defined as strings of (successively embedded) propositions, such that sentences are assemblies of predicational strips (Langacker, 1978: 857, 1982). Here, judgment seems to be overtly fitted for linguistic analysis and description—perhaps roughly synonymous with what some philosopher mean by ‘statement’—and thus does not adequately characterize the cognitive nature of judgment (the notion of proposition is also peculiar, and is not obviously different than an open sentence or construction schema). In cognitive grammar, Langacker (1987, 1991) does not countenance it or otherwise accord such a notion any prominence. Croft & Cruse (2004: 54), for instance, give it a one-paragraph treatment.

22 For instance, one characterization to be avoided is peculiar to the literature on heuristics/biases, satisficing, bounded rationality, etc. (see, e.g., Schwarz, 1996); the concept JUDGMENT in that literature is too encumbered by local concerns and highly-contextualized debates to be extrapolated for a general characterization. Another to be avoided is a characterization that takes judgments to be a mind-independent two-place complex relating thoughts and truth-values, i.e., as a function \( f(x): x \to t_i \) that takes as input a Fregean thought \( x \) and returns as output a truth-value; this characterization of JUDGMENT is fit for a truth-functional analysis along the lines of Frege’s (exotic) thesis that the sense of any true sentence denotes The True.
called cognitive content (save for the claim that one relatum is what is given in receptivity). More generally, Kant regarded cognition as a process of conceptual construction of an external world, based on the registration of sensory stimulation by something external to and independent of them, and which provides for complexes of external objects and their features to be represented. Judgments, then, were taken to be unifying functions or syntheses of cognition—a particular type of re-cognition. In more familiar parlance, we can think of Kantian judgments, mutatis mutandis, as the culmination of a cognitive act of information-processing that serves to synthesize lower-order representations or contents into a single, unified, higher-order representation by bringing them together under a common, intelligible, and discursive format.

One of the most distinctive features of Kantian judgments is that they serve as the primary and proper bearer of truth: *truth [...] is not in the object, insofar as it is intuited, but in the judgment about it, insofar as it is thought* (A293/B350). For Kant, the unification or synthesis of cognitions into a truth-bearing representation depended on a group of three logical modes by which they are formatted. Kant singled this group out for atypical nature, writing, *the modality of judgments is a quite peculiar function. Its distinguishing characteristic is that it contributes nothing to the content of judgment [...] but concerns only the value of the copula in relation to thought in general* (A74/B100; A219/B267). Hence, their special status consists in the fact that, as modes of formatting, the modality of judgment is purely formal, abstracting away from all conceptualization. Kant’s concept of modality concerned the manner in which the synthesis of cognitions in a given judgment is related to what he called thought in general, which might be understood as the conditions on the possibility of the deployment of cognition.
The most relevant mode of judgment, for my purposes here, is what Kant called the *assertoric mode*. Kant was not, of course, using the term *assertoric* in the contemporary sense of the performance of an illocutionary act. Of the three logical functions, the assertoric mode was simply the mode pertaining to actuality (rather than possibility or necessity), and it is this pertinence that allowed judgments to serve as the primary and proper bearers of truth. Hence, the logical function of the *assertoric* modality of judgment is a function of *taking-to-be-true* (*Fürwahrhalten*).\(^\text{23}\) It ranges over those judgments whose affirmation or negation is construed as *actual* or *true*, i.e., the suspension of consideration of truth-value is lifted (A70/B95; A76/B101).

Importantly then, Kant’s discussion of the concept *truth* within a distinctly cognitive dimension helped make possible the idea that *truth* is inextricably bound to the concept *modality* by which all judgments are formatted. Kant self-consciously related the characteristics of the logical function of the assertoric modality by which judgments are formatted to the corresponding characteristics of the modality of existence in his categories. Hence, that judging truly concerns the *existence* of pure or empirical objects of sensible intuition (B110) is reflected in the logical function of the assertoric mode. A higher-order representation or re-cognition, for Kant, in taking the form of a judgment in the assertoric mode, was no longer a mere re-cognition of objects, but becomes a way of assaying the existence of objects and the properties possessed by them, and thus a way of (literally) capturing the *truth of the matter* (assuming that the assay is maximally veridical). Understood as assertorically formatted re-cognitions, Kantian

\(^{23}\) We should be careful not to read too much into the idea that judgments in the assertoric mode are takings-to-be-true, since any and all truth-bearers are, in some sense, takings-to-be-true. When formatted in the assertoric mode, Kantian judgments allow the information cognized to be (literally) re-cognized.
judgments in the assertoric mode are true if extant objects are re-cognized as being how they actually are (Kant 1800/1992: 40), and are tantamount to an ontic apprehension of, inter alia, the ways in which extant objects and their properties are in the empirical world.

It seems to me that the cognitive grammarian should attempt to build on a roughly Kantian story about judgment. That story has fallen on hard times, however. In his seminal essay on Frege’s theory of judgment, David Bell began by stating that, since the beginning of the present century the notion THEORY OF JUDGMENT has fallen, if not into actual disrepute, then at least into desuetude. [...] The theory of judgment has thus been displaced from the centre of the philosophical stage in favor of concerns more overtly linguistic; but many of the aims, doctrines, concepts, and problems central to the former remain essentially unchanged beneath their new linguistic guise (1979: 1–2).

Bell’s assessment is correct, I think, on all counts. The invocation of the concept JUDGMENT is a throwback to an older way of thinking about cognition and truth—one that is currently unpopular in most philosophical circles. Talk of judgment is often thought to be turn-of-last-century-talk—i.e., a concern for historians only, particularly those interested in the continental philosophy of the neo-Kantians, Franz Brentano, Kasimierz Twardoski, Edmund Husserl, and Alexius Meinong, as well as others of the day like William James and Gottlob Frege. Hence, as a construct in a theory of mind and language, JUDGMENT has fallen out of favor. What it needs is an update.

3.2. Updating a notion of judgment for contemporary cognitive science

3.2.1. Comparison. An amazing feature of cognizers that they can creatively detect resemblances, (dis)similarities, and discrepancies for virtually anything, relating
two or more previously unrelated and metaphysically different entities. An aerial image of the state of Michigan resembles a human hand; a map of the mass transit system of the city of Los Angeles can be compared to thistle bush; etc. So utterly ubiquitous is the cognitive ability of comparison that it occurs in very low-level modality-specific perceptual processing, such as when the intensity of two scents are compared olfactorily, to very high levels of amodal psycholinguistic processing. It also subsumes many other abilities, operations, and processes as special cases—e.g., the phenomenon of meta-cognitive monitoring studied in psychology, whereby relations between doxastic and other epistemic states are checked for features like accuracy and coding fluency.\(^{24}\) Judgment, like meta-cognitive monitoring and other evaluative processes of thinking about one’s own thoughts, is yet another special case.

Within cognitive grammar, comparison involves relating two or more entities so as to register any putative discrepancies between them (Langacker, 1987: 101–06). As Langacker describes it, the relation within which it consists is one of asymmetric scanning from a standard \(S\) to a target \(T\). This is notated schematically as \(S > T = V\), where \(V\) is an activation vector—i.e., the direction and magnitude of scanning from standard to target. Generally, the activation vector is the basic unit of cognition in biologically-based artificial neural networks, vector-to-vector transformation is the basic unit of computation, and synaptic weight configuration is the basic unit of memory (see, e.g., Churchland, 1989). Neuronal nodes compute activation output states according to their current activation state and total input (the sum of its signal strength times its weight). My intention here is not to recapitulate mathematically precise analyses of the

\(^{24}\) See, e.g., Schwarz (1996); Reber & Schwarz (1999); Begg & Armour (1991); Begg et al. (1992).
vector transformations in coordinate systems that ultimately comprise our ability to compare entities, but only to note what constructs are in play for an eventual characterization of judgment. In line with the Kantian notion, then, a judgment is a complex cognitive content functioning as the semantic pole of a veridical linguistic construction. Like any content functioning as a semantic pole, judgments involve both conceptualizations and construal.

In the Kantian account, judgments are understood both as a type of cognition—i.e., a higher-order representation—as well as a type of activity of the mind—i.e., a unifying function or synthesis. Accordingly, judgment is thought to exhibit a basic act/content ambiguity. In one sense, it is a complex mental episode by which information or representational content can be effected or carried out—a sense which makes judgments thoroughly mind-dependent acts; in another sense, judgment is understood to be a complex state of information or a molecular representation that is carried out by these mental episodes or acts, but are independent of them.

The act/content distinction is derived from a container metaphor of vehicles carrying contents; but the metaphor, and thus the distinction derived from it, is not necessarily a good one—and possibly pernicious. The purported ambiguity of judgment has forced many theorists, following Frege, Edmund Husserl, and the other anti-psychologists, to reject the former sense of judgment as a candidate for the primary and proper bearer of truth. Often the rejection is dogmatic; Alfred Ewing, for instance, wrote: [w]hat corresponds? It is not the judgment as a psychological event (or as a behavior disposition). Psychological behavior dispositions are not true or false. We must say that what is judged or believed is true, not the judging or believing of it (1962: 473). Prima
facie, however, we commonly think of judgments as being made, not found, discovered, grasped—they are, to (mis)appropriate Hannah Arendt’s term, a proper exercise of *Homo Faber*, the fabricating man. If so, then the concept of a judger is presupposed in any satisfactory analysis of JUDGMENT: i.e., it is part and parcel of our mastery of the concept JUDGMENT that the concept of a judge somehow figure among the cognitive domains comprising JUDGMENT. In failing to conceive of there being a token judgment for which there is neither a judge nor a specific act of judging by which it was produced, this claim is constantly confirmed. Of course, the balance between a strongly cogent inductive generalization and an argumentum ad ignoratio is often delicate; but it is reasonably clear that any given judgment token stands in a relation to a specific cognizer, and to whom it owes its existence as an entity. A consequence, however, is that a fundamental aspect of judgment, unlike other candidate truth-bearers such as propositions and Fregean thoughts, is that they are not cognizer-independent. So, pending argument to the contrary, a satisfactory characterization of judgments involves—to some extent—explaining the canonical mental activities of judges that produce them.

It is a virtue of the present characterization of judgment that it denies any such ambiguity of act and content, proposing instead that judgment—like any other species of content—involves the pairwise interaction of conceptualization and content. A direct consequence is that judgment, like content, is not an act- or activity-independent state, and does not involve some sort of pure information that is isolable from the cognitive processes comprising the ability to construe that information in alternate ways. Accordingly, JUDGMENT straddles—rather than falls afoul of—the putative distinction
between act and content, and in a way that reaffirms the cognitive basis of veridical linguistic constructions.

Veridical linguistic constructions have as a constitutive part of their semantic pole the cognitive processes of scanning that factor in comparing an assembly of cognitive models (i.e., a standard \( S \)) with some conceived situation as the target \( T \). At the limit, the value of \( V \) is 0, meaning that no discrepancy is registered between \( S \) and \( T \). This state is aptly termed \textit{re-cognition}, which we might think of as the redundant cognition of something again, or of something as it is. Depending on the how the conceived situation is formed in relation to how the world is, recognition portends that the veridical linguistic construction is maximally veridical, i.e., true. If the value of \( V > 0 \), however, the veridical linguistic construction will be approximately true, where the degree of approximation corresponds to the value of \( V \); likewise, the veridical linguistic construction will also only be approximately true if there is discord or incongruity between the conceived situation of which the judgment is about and how the world is.

3.2.2. \textit{Cognitive models}. Qua content, judgments are constructed assemblies of lower-order representations—what Kant called a \textit{synthesis} or \textit{unifying function}. The nature of such content is unspecified, but is perhaps most naturally thought of in terms of cognitive models (described below).

The term \textit{cognitive model} has many different senses, and is dangerously overused; however, the senses relevant for present purposes have been frequently-characterized.\footnote{See, e.g., Putnam (1981); Langacker (1986); Gärdenfors (2000); Fillmore (1985); Fauconnier (1985, 1997). My characterization of \textit{cognitive model} is partially intended to aggregate...} Generally, cognitive models might be thought of as \textit{proto-epistemic...}
structures, in the sense that they are organized configurations of working knowledge that are evoked in online occurrences of speech and thought. Hence, a primary feature of cognitive models is that they are particularly dedicated to keeping track of what exists, what happens, and what matters. This feature makes them crucially important for “running,” simulating, or otherwise mentally manipulating content to “see” or test the consequences, inferential or problem-solving strategies, etc, and thus for guiding action in different situations.26

Unlike novel contents, cognitive models are extracted from experience through the repetition of framing (as well as other cognitive processes, like filtering out other possible conceptualizations involved in cognitive domain matrices, and selection and emphasis of cognitive and conceptual structures in domain matrices), and are thus subsumable under what Langacker calls familiar cognitive routines. Through repetition of framing, cognitive models are made readily available in working memory registers, and as such are important for influencing the online interpretation of information; many such models subsequently achieve an exalted, almost archetypal status—the so-called idealized cognitive models, or ICMs.27 ICMs are highly abstract and schematic cognitive models, which are particularly based on the expectations of cognizers in addition to their experiences, and which a system relies on to ease processing burdens and enhancing

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What I see as commonalities among various technical terms (e.g., scripts, theories, frames, mental models, mental spaces, conceptual spaces), but also partially intended to be integrated within a Kantian notion of judgment and theory of truth.
processing fluency, whether for communicative, computational, or cognitive purposes.\textsuperscript{28} Basically, they are the brain’s highly-prized instruments of lassitude and leisure.

Three final points are worth noting. Firstly, cognizers and cognitive systems need to be able to assess the applicability of their cognitive models. Since assessment can be right or wrong, mistaken or erroneous, subject to reproach, etc., it should be clear that judgment, and the veridical linguistic construction which it figures in, have a deeply normative dimension. The assessment of applicability requires—much in the way envisioned by Frege (vis-à-vis his concept of the judgment-stroke; see chapter four §3.2.1)—that judgments inherently involve a particular \textit{stance} or orientation on some conceived situation for comparison with it. Unsurprisingly, a natural way to think of this stance or perspective accorded to cognizers in acts of comparison is as the result or outcome of the scanning from $S > T$. The process of retrieving cognitive models from memory registers and assembling them into judgments captures what is judged in better and worse ways, with greater and lesser degrees of facility. Presumably then, the stance is one pertaining to value of $V$ that registers magnitude and direction of fit (indeed, it is part of the cognitive domains of \textsc{comparison} that some conceptualization of direction of fit is implicated). Thus conceived, the normativity of a judgment is a natural product of the very act of comparison.

Secondly, and crucial for the present account—particularly where the correspondence theory of truth is concerned—is that recognition of a target as the standard can occur regardless of any metaphysical differences between the entities

\textsuperscript{28} Various examples of ICMs have been given in the literature. Langacker mentions the “billiard ball” and “stage/theater” models as examples; possibly another is the Aristotelian substance/attribute conception of ontology, where entities and objects have attributes definitive of their substantival category.
instantiating the $S > T$ schema. That is, the standard and target need not be of the same format, medium, or constitution; they need not share the same properties or functions; and they need not be strict analogs in any sense. Hence, a string of symbols can be compared to a physical event, the ideal can be compared to the real, and so forth. The process of scanning from one entity to another in an episode of recognition does not require any sort of mirroring relation between $S$ and $T$.

Lastly, the concepts of comparison and recognition imply that there is a different cognitive process involved in cognizing a true sentence $\sigma$ than in recognizing $\sigma$ as a true sentence. In the latter case, but not the former, the cognizer assays $V$ for the discrepancy between the sentence and the conceived situation of which it is about. If this is correct, then there is further reason to be suspicious of explanatory approaches based on T-schemas, since they fail to account for the facts involving cognition in their relation to the facts involving truth.

3.2.3. *The theoretical utility of JUDGMENT.* The foregoing Kantian notion of judgment avoids several of the problems alluded to by Bell in his observation that the theory of judgment has fallen into disrepute and desuetude. As Bell intimated, a main reason pertains to the technical work in formal linguistics that has replaced JUDGMENT with different constructs or eliminated it altogether. Fregean thoughts, Russellian propositions, Austinian statements, sets of possible worlds, and other such entities have been deemed more analytically useful (cf. Kaplan & Copilowish, 1939; Hinzen, 2003). The present conception, however, yields a natural way of countenancing processes by
which knowledge can be assembled in a way that strengthens the connection between
language and other aspects cognition.

Still, judgments are often taken to be the cognitive equivalent of a sentence in the
declarative or indicative mood, and exhibit much of the same content-rich semantic and
grammatical structure. Hence, one might be tempted to assimilate the concept of
judgment to that of veridical linguistic construction. Wolfram Hinzen has suggested as
much: *I am analyzing truth judgments. It strikes me as an ill-defined question whether we
are talking about ‘thought’ or ‘language’ here. Is a truth judgment a matter of ‘thought’
or of ‘language’? [...] But from where else is the evidence supposed to come [if not
language]?* (2003: 211 fn 23). Hinzen is certainly right that linguistic data provides core
evidence. Moreover, judgments are constitutionally fit for linguistic structure, in the
sense that the assembled cognitive models can serve as cognitive content for semantic
structures. Yet, the assimilation of judgment to veridical linguistic constructions strikes
me as dangerous. It tends to prompt a mistaken treatment of judgments as entities
imprinted on linguistic entities, rather than mental episodes in their own right. Obviously,
however, judgments are more cognitively basic entities than exclusively linguistic
candidates. And there is no good reason to foreclose on the possibility that judgments, as
cognitive entities, will therefore be fundamentally different in nature than linguistic ones;
judgments might very well turn out to be best analyzed as fully imagistic and non-
propositional structures, for instance. Further, since other creatures besides humans have
the ability to make them, not assimilating judgments to linguistic items has the virtue of
allowing for contiguity between grades of cognitive architectures. Accounts that go on to
posit judgments as the primary and proper bearer of truth also have the virtue of not
having to assume an overly intellectual or anthropomorphic chauvinism with regard to the acquisition and mastery of alethic concepts.

One might try to assimilate judgments elsewhere, say, to the category of beliefs or propositional attitudes—and either way, what use is JUDGMENT? The theoretical construct JUDGMENT has several virtues that these and other candidate truth-bearers lack. One virtue is that, JUDGMENT is the entrenched construct of choice in much of scientific psychology and linguistics, whereas BELIEFS are the standard fare in folk psychology. As these two constructs directly compete, a viable construct of JUDGMENT would seem to render theoretically useless, and supplant, that of BELIEF. In any case, the death knell of BELIEF has been long been sounded (Churchland, 1989: 1–22), and, while it is not implausible that the very same arguments spill over into the analysis and description of judgment, it is not clear that they do. Furthermore, unlike propositions, which are notoriously obscure entities (just as Fregean thoughts are), judgments can be naturalistically rendered, and so are not the hindrance for doing philosophy of linguistics and language that propositions are.29

29 A common way to talk about propositions is that they are whatever stands to propositional attitudes like asserting or disbelieving as numbers stand to adding and subtracting (Lynch, 1998: 47). Unfortunately, this way of talking neither provides a characterization, nor tells us what unique (type of) thing so stands. In any case, it would help if there were some—nay, any—consensus as to just what propositions might be. Some take propositions to be sets of possible worlds. Yet, sets of possible worlds lack syntactic structure or logico-linguistic form of the sort appropriate for analyzing and describing truth-bearers. In order to get syntax or logico-linguistic form, something like the concept STATE DESCRIPTION must be invoked; however, treating propositions as descriptions of states trades on the very utility of thinking of propositions as (description-independent) possible worlds. Others, following in the Russellian tradition, take propositions to be constituted by the entities of which they are about. Hence, the proposition La Jolla is in San Diego—which looks an awful lot like a sentence to me—consists in the two-tuple (La Jolla, San Diego) plus an inclusion relation. The idea is akin to something like a SITUATION (Barwise & Perry, 1983) or a PARTIAL STATE DESCRIPTION. These concepts might have some utility for formal approaches to linguistics, but not obviously for ideational approaches. Others still, following in the Fregean tradition, take true propositions to be mind- and language-independent entities, which are eternally true or false by their very nature—irrespective of experience, as a matter of metaphysical
Another reason for the disrepute alluded to by Bell, which is avoided by this conception, pertains to low construct validity. As a theoretical construct, JUDGMENT has wide applicability sits as the crossroads of various disciplines—e.g., psychology, phenomenology, logic, linguistics, cognitive science and epistemology, ontology (partially, why it has such a rich history); but the cost of enjoying such a large disciplinary intersection has thus far been low construct validity. Many of these and other disciplines seem to be studying various cognitive activities and processes related to, but conceptually distinct from, judgment. For instance, in a recent symposium dedicated to models and methods used in studying human judgment, it became clear that some researchers were discussing problem-solving; others were focused on so-called fast and frugal heuristics, while some were interested in decision-making; some were focused on logical inference and formal reasoning—others existential commitment or propositional attitudes (Maule, 2001). Yet, these things can and have been teased apart, such as the fact—and which have their truth conditions essentially. Frameworks like cognitive linguistics are much less mysterious. See also Kaplan & Copilowish (1939), who present a prescient account of the cognitive use of signs that avoids postulating propositions, not unlike the one developed here. Moreover, even when judgment per se is being discussed, there are still problems incurred by selective interest in different types and aspects of judgment. Many psychologists are interested in judgment as an ability or power of cognizers, though confined to the context of studying how differences in experience yield differences in ability or powers of judgment—novices versus experts, untrained versus trained judges, etc. Some are interested only in those judgments made in response to external cues versus those drawing on memory and recall alone or on a priori knowledge. Other psychologists are interested in different phases of judgment. For example, some types of judgment are the product of a conscious mental episode marked by deliberation. In the context of legal affairs, a judge is any individual who has a mandate to perform a certain deliberative role culminating in some set of authoritative set of pronouncement about what was, is, or will be; part of the job description for such an individual will be to hear testimony, take in evidence, consider “the facts,” etc., spend a certain period of time ruminating, and finally returning a decision according to which all parties abide. The duration of each period can be quite long, perhaps years. When a referee evaluates a manuscript and declares that it should be published, or rescinds a putative goal after reviewing the play-by-play monitor, the time course is often far less—e.g., ranging from hours to seconds. Other judgments are even less ratiocinative and more spontaneous. Hence, some are the product of a conscious mental episode but not marked by deliberation, such as when a referee blows her whistle to cite a defensive wing for cross-
empirical demonstration of different cognitive processes realizing judgment versus choice (Westenberg & Koele, 1994). The present construct of judgment provides an all-purpose conception of what underlies and factors in many of these other processes of decision-making, choice, inference, etc.

checking or judges not to sip a cup of scalding hot coffee; others are, arguably, not even the product of a conscious mental episode, as one when identifies a familiar voice while lightly sleeping.
Chapter Three: Correspondence and Cognition

Nothing is less real than realism. Details are confusing. It is only by selection, by elimination, by emphasis that we get at the real meaning of things.
Georgia, O’Keefe (1922)

0. Abstract

The previous two chapters, respectively, argued that cognition is directly relevant to the explanation of the facts involving truth, and then, using some of the theoretical constructs of cognitive grammar, began to develop a substantive account of cognitive processes in a way that clarifies that relevance. This chapter argues that a suitably articulated correspondence theory of truth—far from being antithetical to cognitive linguistics—can indeed account for the relationship between facts involving both truth and cognition.

1. The correspondence intuition versus the correspondence principle

A sure symptom of truth’s being one of the more exasperating concepts subject to philosophical scrutiny is the fact that very smart and clever theorists have had great difficulties in characterizing it, even informally. As Alfred Tarski (1944, 1956) was at pains to show, many such attempts at describing the correspondence intuition are
imprecise or are excessively metaphorical—those invoking some sort of “mirroring” relationship, for example, or those that treat TRUTH epistemically as the concept of something that “hooks” our knowledge of reality onto reality so as to prevents us from spinning free in an epistemic void. Many other attempts are insufficiently general, or are bewildering abstruse, or foist ontological commitments onto folk that they do not have, etc.

Such characterizations are theoretical descriptions of what I’ll call the correspondence intuition—i.e., our ordinary and unintellectualized concept TRUTH—which is so called because those characterizations are usually decidedly realist (i.e., the concept of truth pertains to the expression or description of how things are, what is the case, ways the world is; and so forth). A common way to produce such a description—and thus a common way to begin an essay on truth, from which I shall not deviate any further—is to cite Aristotle’s maxim from the Metaphysics Γ: [t]o say of what is that it is not, or of what is not that it is, is false, while to say of what is that it is, or of what is not that it is not, is true (IV, 6, 1001b, 28). Aristotle had much more to say about truth and truth-telling, but the maxim is often treated as the most concise statement of his views. It has also been heralded for being eminently straightforward, and for being the bottom line when it comes to the truth about TRUTH. Donald Davidson, for instance, claimed that it is clearly superior [to other] informal attempts to state the intuitive idea (1996: 266–68). According to Davidson, then, Aristotle’s maxim is a statement of the correspondence intuition, and is superior to others. I concur, and will follow Davidson, to some extent anyway, in conceiving of Aristotle’s maxim as at least a statement of the correspondence intuition.
The correspondence intuition is naturally situated within the commonsense conception $C$ as core, unifying anchor. As characterized in chapter two, the commonsense conception is a theoretical construct posited to explain cognizers’ abilities to make truth-conducive judgments; it consists in a hypostatized collection of sets of cognizers’ alethic concepts, and so can be formally cast as a generalized union $\bigcup C$ such that $\{c \mid \exists x(x \in C \& c \in x)\}$. Naturally, this invites theorists to further posit some privileged set of recurrent elements in $C$ to fix upon; where this is the set of concepts simultaneously belonging to every set of $C$—namely, the correspondence intuition—it can likewise be formally cast as the generalized (nonempty) intersection $\bigcap C$ such that $\{c \mid \forall x(x \in C \rightarrow c \in x)\}$. Such formalism is implicit in many philosophers’ research. Alvin Goldman, for example, advanced as an empirical hypothesis the claim that there exists a single, cross-cultural concept $\text{TRUTH}$, since “ordinary folk” have an implicit or intuitive understanding of the meaning of the word $\textit{true}$ (1999: 33).\footnote{Even bracketing that there are multiple, related meanings of $\textit{true}$, Goldman’s claim needs reformulation; for what ordinary Anglophone speakers implicitly or intuitively understand by $\textit{true}$ is surely insufficient evidence for a cross-cultural generalization of the type Goldman intends.} \footnote{But why think that? What evidence could Goldman have, and have in a way that excludes the possibility of chauvinism? What reason does Goldman have for thinking that the concept $\text{TRUTH}$ which has purchase in Goldman’s discursive environment is the exemplar for how every cognizer conceives of truth? Alternatively, do different epistemic communities across different times employ subtly different conceptualizations? If giving an accurate initial description of the explanandum requires answering these questions, then giving a theoretical reconstruction of $C$ and its subsets would seem to require doing a bit anthropological fieldwork—i.e., we need to empirically study the actual conceptualizations actually achieved by cognizers in order to determine the degree to which the theoretical constructs posited track them. This is not to claim, of course, that the theorist’s reliance solely on her intuitions and own conceptualizations are illegitimate, but instead to plump for a bit of actual data collection. For while the claims of insubstantivists like Ramsey (1927: 160), who declared that there was no special problem of truth, or Ayer (1964: 162), who wrote that there is nothing puzzling about the concept}
Williams declared that the concept TRUTH is acultural, ahistorical, and always and everywhere uniform (2002: 61–2). Claims like those of Goldman and Williams exemplify, I think, a convergence of philosophical opinion that there exists a universal alethic concept—namely, TRUTH—that holds diachronically across all epistemic communities, and that anchors the commonsense conception in the sense of being a core unifier.

An alternative suggestion is that there is no single correct theoretical statement of the correspondence intuition, or, more radically, that there is no single correspondence intuition itself, or, more radically still, that there is no single thing about which the correspondence intuition itself is the concept of. Some of these suggestions are an

TRUTH at first sight, may end up being vindicated, perhaps we should not simply take their word on it. For his part, Goldman seems sensitive to these issues, if only for the reason that his particular view necessitates adducing a good amount of anthropological and philological evidence about the specific content of the correspondence intuition. Ultimately, the evidence he adduces establishes nothing more than his claim that truth is a vital concern of kind (1999: 33), which is to say that it is insufficient to address the questions—and particularly to dislodge the worry about chauvinism. Goldman’s view is important to study, if only because it is emblematic of so many other philosophers’ assumptions. He has no inductive a posteriori argument based on cross-cultural investigations of TRUTH, and so is forced to be sanitize his view by making idealizing assumptions that the union of cognizers’ actual concepts like TRUTH forms a highly homogenous set; yet, such sanitizing assumptions tread on the very evidence needed to establish such an argument. And there is evidence to the contrary. As Maffie (2000, 2002; see also Smirnov, 1997) has pointed out, Pre-Columbian North- and Meso-American epistemologies and Pre-Han East Asian epistemologies have employed concepts of truth that do not designate bona fide correspondence relations. The ancient Greek concept ALETHEIA provides another counterexample, as it is a concept pertaining to cognition, memory, and experience in exactly the way Goldman denies (e.g., Heidegger, 1927/1962; Detienne, 1996). Moreover, TRUTH has not found its way into careful and detailed studies compiling linguistic universals (e.g., Wierzbicka, 1992). So while the commonsense conception may be a useful heuristic for thinking about ordinary folk-theoretic concepts of truth, it is not prima facie obvious that all ordinary folk in all communities across all time periods have had or used exactly the same ordinary view or folk theory. Demonstrating that it is obvious requires much more data than Goldman has at his disposal.
expression of pluralism about truth, which is the thesis that there are multiple ways of being true, and others are an expression of some aspect of alethic pluralism more generally. I myself am sympathetic to such views, about which there has been a steady increase in interest and excitement. For instance, it appears that Dorothy Grover—ironically, an originator of prosententialism—recently took the pluralist turn. Upon endorsing Lynch’s (1998) view of fluid concepts, Grover wrote: the picture of living languages [...], according to which there is openness in word usage, means that we should not expect to find the correct formal explication of the intuitive concept of truth. [...] The fact that word usage is open means that there is not necessarily a unique concept, nor (if there were one) will there be just one way of ‘extending’ it in a formal context (2005: 201 (emphasis hers)). I will have more to say about pluralism later. For now, let me note that however one deals with such difficulties, initial (or even final) descriptions of the correspondence intuition, such as Aristotle’s maxim, should not be confused with the further explanation and analysis of it in terms of the theoretical principles of the correspondence theory of truth. Prima facie, these two things should be distinguished.

What I am calling the correspondence intuition is theorists’ understanding of how cognizers ordinarily represent truth. It can be and has been variably rendered as the concept of an association (e.g., between propositions and reality), the concept of a relation of mere covariation (e.g., between sets of truth-bearers and truth-makers),

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counterfactual dependence, mirroring (e.g., between propositions and Tractarian facts), isomorphism, congruity, or other structural mapping relations, a non-relational property, a functional property, or something else altogether. Although there are numerous versions of the correspondence theory of truth, which vary according the strength, extent, and manner of their principles and postulates, the most general theoretical principle that all such versions are committed to is the **correspondence principle**:

\[(csp) \text{ Truth consists in correspondence.}\]

The correspondence principle is the correspondence theorist’s most general theoretical principle for explaining that truth consists in something, and that what it consists in correspondence. Accordingly, it is the correspondence theorist’s reconstruction of what the correspondence intuition itself is about in terms of the constitutive nature of truth. More importantly, whereas the former need not be formulated in terms of *correspondence* at all, the latter must be (e.g., recall Aristotle’s maxim, for instance, which avoids such formulation). Consequently, it should be clear that the correspondence intuition and the correspondence principle possibly come apart, since it is not obligatory to describe the correspondence intuition as the concept of a bona fide correspondence relation (this is precisely why correspondence theories of truth are so-called *substantivist* theories). Many, if not all, theories of truth are committed to some version of the correspondence intuition; but many theories of truth are not committed to *(csp)*.

Crispin Wright once made roughly this point, I think, by describing the correspondence intuition as a generic conception of truth that can be paraphrased with a
variety of platitudes, but then distinguishing that platitude from the main principles of the correspondence theory of truth.⁴

I think it’s fair to say that [the] conception of correspondence, shorn of any further analytical or explanatory obligations, comes across as highly commonsensical. This piece of commonsense [i.e., the correspondence theory of truth] is not to be confused with the idea that, understood one way, correspondence is nothing more than a platitude. The platitude is that predications of true may always harmlessly be glossed in terms of correspondence to fact, telling it like it is, etc. These paraphrases incorporate no substantial commitment about the structure of truth. [...] By contrast, the ordinary commonsense conception of the kind of thing a proposition’s truth is involves exactly [these] structural commitments. (1999: 207–08)

Wright arrived at his distinction by supposing that the principles of the correspondence theory of truth constitute a type of semantic realism, whereas the platitudinous paraphrases of the correspondence intuition involve no such commitments. For my part, I think we can see that his distinction—if we can make sense of it—is acceptable without taking on board any additional suppositions involving semantic realism. That is not to say, however, that we need not take on board any additional suppositions. One such supposition is that the term correspondence in (csp) designates—as Wright alludes to—a

⁴ The distinction between platitudinous paraphrases of the correspondence intuition and the principles of the correspondence theory of truth—or what Gerald Vision (2004: 92–4; see also Doss, 1966: 7) calls a ‘plain correspondence platitude’ versus a ‘trivial’ one—has been criticized for its vagueness and diction. Vision himself suggests that Wright’s distinction collapses and so leaves only a single platitude, which he takes as confirmation for his conclusion that platitude-based strategies are a significant explanatory resource for the correspondence theorist to deploy. Leaving this latter conclusion aside for the moment, Vision’s criticism of Wright seems to be little more than an argumentum ad ignorantiam—in this case, of the form “I can’t imagine how the distinction ultimately distinguishes between them.” Understandably, Vision’s confusion may stem from the duplicative use of terms like correspondence in different senses (some of which may be misnomers); but the aforementioned ways of distinguishing the correspondence intuition from the correspondence principle should suffice.
bona fide structural relation. Unsurprisingly, not just any specification of the correspondence relation will do.

With such distinctions in hand, I want to specify what the correspondence theory of truth is, what the form of such a theory is, and what it is, and is not, committed to. With such a specification, it should become clearer how the explanation of the facts involving truth can be performed by a correspondence theory that takes cognition seriously. To achieve this specification, let me begin by revisiting Aristotle’s maxim, which has been wildly misinterpreted—or so I claim.

2. Aristotle’s maxim and correspondence: An interpretive prelude

Most scholars writing about it perpetuate the lore that Aristotle’s maxim is the inaugural articulation of the correspondence theory of truth.⁵ And yet, the maxim does not specify or indicate anything about the nature of truth; a fortiori, it does not specify or indicate the nature of truth as consisting in correspondence. Nor does the maxim use or mention the term correspondence or any of its lexical cognates—an absence that should be utterly unsurprising, since the correspondence theory of truth is renown for being a distinctively (early) 20th century preoccupation.⁶ Nor does the maxim tacitly suggest or

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⁶ O’Connor (1975: 7) noted that that the earliest explicit use of the term correspondence in the context of conceptions of truth was around 1809, first occurring in
explicitly posit hypostatized correspondents of the kinds that correspondence theorists are themselves committed. In particular, it does not use, mention, or allude to propositions and is not obviously committed to them; nor does it invoke facts, states of affairs, or any other such term to designate some pseudomaterial sentence-shaped “chunk” of the world (to borrow Peter Strawson’s apt rhetoric). Nor does it give occasion to the recent flurry of debates over truth-makers and truth-making, which has become a mainstay of the general program of the correspondence theory of truth.

Given that all of the pieces are missing, such misinterpretations are puzzling indeed. The maxim is at best a statement of the correspondence intuition, which is neither necessary nor sufficient for a statement to be a statement issuing from the correspondence theory of truth. Incidentally, others have cited Aristotle’s maxim as the direct anticipation of Tarski’s semantic conception of truth; and since Tarski’s semantic conception has itself been heralded as the forerunner of deflationism, so too has the maxim.\(^7\) Now, surely something is amiss when the correspondence theory of truth, the semantic conception of truth, and deflationism are all said to issue from the same adage.

2.1. Grammatical blindsight and the lapsus linguæ hypothesis

the writings of the poet Samuel T. Coleridge: by verbal truth we mean [...] the correspondence of a given fact to given words (1818: 23). An earlier use of correspond can be found, however, in Sir Thomas Browne’s Pseudodoxia Epidemica: things are really true as they correspond unto his conception (1646/1981: 4). Nevertheless, the correspondence theory of truth—as a distinctively philosophical theory—was initially articulated by psychologists (e.g., Baldwin, 1902: 720) and later by philosophers (e.g., Joachim, 1906: 7; Russell, 1907; 1912/1971: 123).

Many of these misinterpretations are engendered by ignoring or neglecting the basic grammatical structure of the maxim—what we might call grammatical blindsight. For example, many formulations of the correspondence theory of truth involve the comparative adverb *as* to get at the idea that truth-bearers are true when things are as they are said to be; for instance, in Plato’s *Euthydemus* (284c9–284d2), we find:

(1) There are people who speak of things as they are [...] those who speak the truth.

Yet, Aristotle’s maxim involves use of the clausal connective *that* rather than the comparative adverb *as* (see Crivelli, 2004: 138). Of course, whether the maxim need be translated such that it involves the clausal connective *that* is an open question, since *that* is intersubstitutable with *whether*, as in e.g., *to say of what is whether it is or how*, as in e.g., *to say of what is how it is*; moreover clauses can be introduced without either connective, as in, e.g., *I think I’m late* instead of *I think that I’m late*. Another, more important, example of grammatical blindsight is that Aristotle explicitly formulated the maxim in terms of the infinitive verb *to say* [*γινειν*], indicating that he took the proper and primary bearer of truth to be the sayings or expressions of speakers. Subsequently, the maxim characterizes the truth-values true and false within the context of what we today think of as illocutionary acts—i.e., speakers’ utterances, presumably with assertoric force, in a given usage event. Hence, if it anticipates any contemporary views at all, the likely candidate would be Strawson’s (1949, 1950) performative or assertoric-redundancy theory. Of course, just as the correspondence theory of truth is a distinctively 20th century preoccupation, so too are speech-act analyses of truth like Strawson’s. I see no
incongruence in being wary of anachronistically attributing concerns to Aristotle which he did not have, on one hand, whilst acknowledging either of two points: (i) if the maxim does encourage a contemporary view, it encourages a type of speech-act analysis of truth, and (ii) it is a legitimate and further question whether or not there is a viable Aristotelian speech-act analysis to be had independent of Aristotle’s own view.

Those few commentators who have correctly read Aristotle’s maxim have tended to attribute something of a conceptual stutter to Aristotle. For example, Wolfgang Künne (2003: 95) wrote that Aristotle’s use of to say does indeed involve predication of truth to acts of saying, but then took this usage to have been a slip of the tongue, or pen rather—a minor problem, as Künne put it. Call this the lapsus linguae hypothesis, which is the hypothesis tantamount to the suggestion that an Aristotelian speech-act analysis is not viable. What is Künne’s ad hoc justification for the lapsus linguae hypothesis? In place of one, he merely raises the rhetorical question, can acts of saying correctly be called ‘true’? (2003: 95). Of course they can—as any such speech-act analyses of truth is testament to. And, at the very least, it seems that Aristotle himself thought so, since translations of his maxim do explicitly concern speakers’ utterances, presumably with assertoric force, in a given usage event. But then, why should we not suppose that Aristotle meant what he said and said what he meant, regardless of whether or not his usage conforms to that with which most contemporary researchers are comfortable? So, if there is no good reason, pending argument to the contrary, to posit a disconnect between the translated prose and Aristotle’s actual intentions, and if such speech-act analyses of truth for assertion are not prima facie incoherent, then we should be suspicious of the lapsus linguae hypothesis. Of course, it should be noted that Künne’s historical
sensitivities are exceptional; yet, this merely suggests that the lapsus linguæ hypothesis is uncharacteristically uncharitable. Similarly, Chisholm (1966: 105) interpreted Aristotle as having taken truth to be an attribute of assertions, but then argued that Aristotle was nevertheless committed to the existence of propositions (qua correspondence theorist?) because the translation of his maxim involves the propositional connective that. Not being a scholar of ancient Greek, I cannot comment on the felicity of the translation. Nevertheless, I have already pointed out whether the translation of such connectives is obligatory is an open question; and given that propositions are no less a distinctively (early) 20th century preoccupation than correspondence, the bare anachronism of foisting propositions on Aristotle is reason enough to be suspicious of Chisholm’s reinterpretation.

In what is surely the most comprehensive and insightful account of Aristotle’s views on truth and falsehood to date, Paolo Crivelli (2004, ch. 4) avoids both the problem of grammatical blindsight and the lapsus linguæ hypothesis. Crivelli, like Künne, has produced an impeccable work that is exegetically and historically sensitive. Unfortunately, he too defends the interpretation of Aristotle’s maxim as a correspondence-cum-isomorphism theory of truth. Crivelli renders the maxim as follows.

To say of a (composite or non-composite) item which in fact ‘is’ in the sense of being true that it ‘is not’ in the sense of being false, or of a (composite or non-composite) item which in fact ‘is not’ in the sense

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8 Kaplan & Copilowish (1939: 480) argue that is the failure to consider the interrelatedness of pragmatical and semantical factors in the actual process of semiosis that has led many, like Chisholm, to the introduction of concepts such as PROPOSITION. Interestingly, they provide an alternative account in which pragmatic considerations (perhaps like those found in an Aristotelian speech-act analysis) undermine the reasons usually thought to necessitate the introduction of PROPOSITION.
of being true that it ‘is’ in the sense of being true, is false; to say of a (composite or non-composite) item which in fact ‘is’ in the sense of being true that it ‘is’ in the sense of being true, or of a (composite or non-composite) item which in fact ‘is not’ in the sense of being false that it ‘is not’ in the sense of being false, is true. (2004: 135)

He then suggests that the sense in which Aristotle’s maxim involves correspondence-cum-isomorphism is the sense in which Aristotle gives an account of truth for assertions whereupon, mutatis mutandis, an assertion $a$ of a class $A$, that is mapped one-to-one ‘onto certain attributes’ is true just in case ‘the item’ $a$ is about has the attributes it is said to have. For one thing, this rendering of the maxim butchers it; for Aristotle adequately gives a definition of true and false in which these terms do not appear in the definiens. Crivelli, on the other hand, not only imports the definienda in the definiens, but also unnecessarily imports vocabulary (e.g., in fact, ‘$x$ in the sense of being true’) and posits (e.g., items) that dissolve the clarity and concision of the original maxim. Furthermore, the maxim itself gives us no reason to hold that an assertion $a \in A$, mapped one-to-one onto certain attributes is true just in case the item $a$ is about has the attributes it is said to have. This is not to say that Crivelli’s rendering is not a correspondence-cum-isomorphism conception of truth; it is to say that it does not emerge from Aristotle’s maxim per se.

2.2. Tarski’s misattribution

I think that the popularity of and uncritical reliance on Tarski’s remarks about Aristotle’s maxim is a common cause of these misinterpretations (though the blame is hardly Tarski’s alone). In his The concept of truth in formalized languages, Tarski
confined himself to a so-called *classical conception*, which he explicitly took to be the correspondence theory, and which he expressed as

(2) A true sentence is one which says that the state of affairs is so and so, and the state of affairs is indeed so and so.

It was the editor of Tarski’s collected papers who suggested that Tarski’s expression of the correspondence theory of truth in (2) was merely a direct paraphrase of Aristotle’s maxim (1956: 155 fn); Tarski himself never explicitly identified either the classical conception or the correspondence theory of truth with Aristotle’s maxim in this paper. But then, why locate the common cause of this misunderstanding of Aristotle’s maxim as the inaugural articulation of the correspondence theory of truth in Tarski’s remarks? In his earlier *Semantic conception of truth*, Tarski’s stated aim was to *catch hold of the actual meaning of an old notion*, as he put it, and to precisify it with a materially adequate and formally correct definition of true sentence type. The old notion, of course, was none other than what he called the *classical Aristotelian conception of truth*, which Tarski stated as

(3) The truth of a sentence consists in its agreement with (or correspondence to) reality.

Given the overt use of *correspondence* in (3), it is clear that Tarski treated the classical Aristotelian conception of truth, and the commonsense conception of truth of which it is

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9 The old notion that Tarski likely had in mind is more recognizably Cartesian, in the sense that it is a mental representation of a relationship between the objects involved in intentional representation, which descends through Kant to Tarski’s teachers and colleagues in the Brentano school (Twardoski, Kotarbiński, Leśniewski, etc.)
generally constitutive, to be intimately related to the correspondence theory. And while that is not yet to say that Tarski identified the classical Aristotelian conception with Aristotle’s maxim, it nevertheless becomes clear that he did upon considering the justification for his claim that (2) is *imprecise and unclear* (1944: 341 ff.), which was not provided until *Truth and Proof*, some 25 years later: *for one thing, it is not general enough; it refers only to sentences that ‘say’ about something ‘that it is’ or ‘that it is not’* (1969: 63). So, there is good reason to suggest that Tarski regarded his statement of the classical Aristotelian conception to be a direct paraphrase of Aristotle’s maxim—his editor’s remark being no editorial infelicity. Yet, the maxim itself neither refers to or otherwise implicates sentences, much less sentences ‘*that say*’ or ‘*express*’; if it refers to anything, it explicitly refers to (acts of) saying or expressing truly and falsely, and implicitly refers to speakers who say or express themselves truly and falsely. So, given Tarski’s remarks and his larger philosophical significance in debates over truth, it stands to reason that the misinterpretation owes (at least in part) to his facilitation of it. Yet, it seems reasonable to explain Tarski’s misattribution of correspondence to the Aristotelian maxim as owing to his having been steeped—as a matter of historical contingency—in the received view of semantics (including Frege’s thesis), which involves sharply distinguishing semantics from pragmatics in order to isolate speakers and their acts of saying or expressing from what they say or express.

3. The correspondence theory of truth
I have argued that Aristotle’s maxim is at best a statement of the correspondence intuition, which is neither necessary nor sufficient for a statement to be a statement issuing from the correspondence theory of truth. Besides not being the inaugural articulation of the correspondence theory of truth, I have also argued that the maxim is neither the direct anticipation of Tarski’s own semantic conception of truth, nor the forerunner of deflationism about truth; for its grammatical structure reveals that it encourages a type of speech-act analysis of truth if it encourages a contemporary view at all. Given that each of these theories has been beleaguered by powerful objections—particularly, the correspondence theory, which is often portrayed as being utterly unsalvageable—some might take this to be a good thing. Speech-act theorists, such as Strawson, have been particularly critical: the correspondence theory requires not purification but elimination and out of the crooked timber of the correspondence theory of truth no straight thing can ever be made (1949, 1950, 1965: 37). Contra Strawson, I think a suitably articulated correspondence theory might be incorporated into a further, Aristotelian view about assertion.

If Aristotle’s maxim is not a statement issuing from the correspondence theory of truth, then how should we understand the correspondence theory itself? In what follows, I suggest that the minimal criteria for something to count as a correspondence theory of truth—i.e., its most basic form—is that it explicate \((csp)\) in a way that indicates what correspondence is and what the correspondents are. I indicate what these are in §4 below. Once so counted, we should also then expect it to do much more to make good on its being understood as an inflationary alethic theory. In the meantime, we can immediately achieve a better sense about what it means for something to be legitimately called a
correspondence theory of truth by addressing some problems that are commonly thought to face the correspondence theory of truth, and thus clearing the ground for a version that is minimally adequate. One is a vacuity complaint, another is a skeptical challenge. Not addressed here are the so-called slingshot arguments.

3.1. The vacuity complaint

A theory not committed to (csp) would not be a version of the correspondence theory of truth in any recognizable sense. This suggests that a proper characterization of the correspondence theory should therefore begin with that principle. Given that (csp) is not what we might call an information-rich principle, however, the extent to which any such characterization ends with it is the extent to which that characterization is wanting.

The vacuity complaint might be put like this: saying that (csp) is not information-rich is woefully inaccurate; rather, the principle is entirely vacuous. Typically, the basis for this complaint is an assumption to the effect that (csp) and its derivatives are compatible with virtually all alethic theories, and so too neutral to be theoretically useful. The origin of this inference is unknown to me, though it can at least be traced back to William James (1907/2001: 211). James held that all parties to the dispute over the nature of truth antecedently accept that truth consists in the agreement with reality (where agreement with reality was James’s preferred idiom for discussing correspondence). The inference receives a much more interesting expression from Martin Heidegger, however.

We have, in fact, up to now only exchanged one conception for another [...] truth as correspondence somehow concerns this relation of representations to their objects. How can we further define this relation? In posing this question we enter a playground for every
possible theory [...] Both proponents and opponents of this traditional characterization of truth overlook the fact that the description is only a starting point for clarifying the essence of truth. It is a start which in no way guarantees, as the history of the concept of truth shows, that it will be developed correctly; it can also become a starting point for erroneous theories. The definition of truth as adaequatio is the starting point, not yet the answer; it is the point of departure for posing the problem, but is not yet the solution! (1984: 124–25)

The assumption that (csp) is compatible with every possible theory—i.e., call it the compatibility assumption—has also found its way into the works of numerous contemporary philosophers. Unfortunately, it is demonstrably false, and its falsity leaves the vacuity complaint misguided. The appearance of vacuity recedes by recognizing either of the following two points.

Firstly, (csp) is a theoretical principle in the sense that theorists use it as part of their explicit theoretical reconstruction of what the correspondence intuition is the concept of. The rationale for its employment is based on the (empirical) hypothesis that our ordinary concepts of truth are concepts of a bona fide correspondence relation—a

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10 See, e.g., Wright (1999: 228); McCauley (1986: 202); Marino (2006: 420); Blackburn & Simmons (1999: 1)

11 At a recent symposium on the correspondence theory of truth at the 2007 Pacific Division of the APA (San Francisco, CA), it was pointed out that proponents of the correspondence theory of truth often spend their time disarming objections, such as slingshot arguments—the supposed weapon of mass destruction for use against correspondence theories, as it was put—and the vacuity complaint, as I am doing here. One reason given as to why was that proponents of the theory are often bewildered why anyone should reject it, since the basic principles seem obvious and obviously right. But I think we can see that the symposiasts, in reasoning thus, were confusing statements of the correspondence intuition, which might be obvious to us given that they track the ordinary way that we represent truth, with the correspondence principle, which is contentious. Furthermore, such reasons incur a dilemma. Either (csp) is contentious, in which case it is neither obvious nor obviously right, or it is obvious and obviously right, in which case the vacuity complaint is too. (Symposiasts were Andrew Newman, Richard Fumerton, and Gerald Vision.)
hypothesis that could turn out to be false.\footnote{See, e.g., O’Connor (1975: 17); Maffie (2000); Goldman (1999); Barsalou & Wiemer-Hastings (2005).} Secondly, endorsing \((csp)\) commits a theorist to at least two further non-trivial claims that render their theory incompatible with certain others. One claim is that truth can be reductively explained or analyzed in terms of something else (and therefore cannot be rendered as a primitive). The other claim, which is already implicit in \((csp)\), is that the designatum of the term \textit{correspondence} is a multi-place relational property of a certain sort. Ultimately, these latter two claims schedule the correspondence theorist to provide an analytic definition of what it is to be true, of the forms

\begin{align*}
(4a) \quad & x \text{ is true iff } x \text{ is } F \\
(4b) \quad & x \text{ is a truth iff } x \text{ has } F
\end{align*}

where \(F\) is the multi-place correspondence relation. According to the schema \((4a)\), being \(F\) is what a truth-bearer is when it is true; according to \((4b)\), having \(F\) is what a truth-bearer has when it is a truth. Consequently, where multi-place relations are a kind of property, \(F\) should be understood as a property of truth-bearers.

Together, these latter two claims make it clear that \((csp)\) separates the correspondence theory from several other rival alethic theories, and so is actually incompatible with many of them. Included are those theories committed to claims that truth is a non-relational or a one-place monadic property (e.g., disquotationalism), that it is a non-structural property (e.g., alethic functionalism), that it is solely an operator or truth-functional connective (e.g., prosententialism), or that it is otherwise just not a property (e.g., nihilistic versions of deflationism, assertoric-redundancy theory). And in
making good on this sort of reductive analysis, the correspondence theorist can also
disarm a related complaint that (csp) fails to go beyond the deployment of biconditional
T-schemas (Lewis, 2001: 75; Horwich, 1990: 111). In sum, we do not enter a playground
for every possible theory, as Heidegger put it, by merely stating the correspondence
principle; for while (csp) is the starting point for the correspondence theorist, it hardly
follows that is the starting point for every theorist (see also Vision, 2004: 89).

Consequently, the inference to the vacuity complaint on the basis of the
compatibility assumption is flawed. The correspondence theory of truth is not vacuous, as
some have mistakenly argued (e.g., Lewis, 2001), since its most general principle (csp) is
not vacuous, and since every principle derived from or expounding on (csp) is even less
so. Of course, this need not prevent us from acknowledging just why the vacuity
complaint seems persuasive. The obvious reason mildly put is that (csp) leaves much to
be desired. For instance, correspondence theorists must specify the further nature of F if
their theories are to be truly explanatory, yet (csp) leaves unclear just what
correspondence itself is. And it fails to address numerous important adequacy criteria,
such as what to count as the primary and proper bearer of truth, whether there are truth-
makers and how to individuate them, what counts as a valid test or assay for truth, and so
forth. Leaving these issues open does have the virtue of fostering further courses of
inquiry, analysis, and explanation rather than closing them off; nevertheless, much more
precise and informative specifications are needed in order to further isolate the theory
from its competitors.

3.2. A skeptical challenge
The vacuity complaint is rebutted, in part, by showing that an endorsement of (csp) comes with an attendant commitment to providing an analytic definition, as in (8), that formulates the necessary and sufficient conditions for either what it is to be true or to be a truth—i.e., the condition of either being, or having, a single uniquely substantive feature \( F \). Yet, it is not at all obvious that truth, or what it consists in if anything, can be reductively identified with any such \( F \). Indeed, it may even be false that it can. If so, then the correspondence theorist’s successful rebuttal of one problem is cause for another.

Why think that the correspondence principle compels us toward (wrongly) thinking of truth, or what it consists in, as a single uniquely substantive feature—specifically, a feature whose existence is part of the explanation of what unites all and only the truths? To help motivate the complaint, consider an analogy with fences and their features. Fences are usually human scale, erect, have iterated sections, and constructed out of sturdy materials such as bars, posts, links, braces, or rails. However, these or any other features that might be considered—either in isolation or combination—are not definitive of all and only the fences. We can immediately start churning out counterexamples,\(^{13}\) and the reason that we can owes, in part, to the heterogeneity of our fence category.

\(^{13}\) Containment often seems important, but is hardly necessary: a few sections of white pickets serving as an ornamental backdrop for your grandmother’s prize tulips is every bit a fence as one with chain links and barbed razor wire atop enclosing a penitentiary. Hence, a principle like ‘\( x \) is a fence iff \( x \) serves as a material partition for exclusion or inclusion’ while applicable to many members of our fence category, may very well run afoul of counterexamples if overgeneralized. Six centimeter-tall fences on a model railroad set are certainly fences, but not human scale. A long metal grate covering a ditch (perhaps with iterated sections, if it helps to imagine it) that effectively prevents your cows from wandering down the road and into your neighbor’s pasture shares a large number of features with prototypical fences; being erect is not one of them. Virtual or invisible fences, which consist in electric wires buried underground that deliver a
Views that require—as a necessary and sufficient condition on being one of its members—the possession of a property which is, or which itself consists in having, some single uniquely substantive feature $F$ face very sobering difficulties in dealing with heterogeneous categories, such as fences; for it is not obvious that there is any such feature shared by, e.g., all and only the fences. If the analogy holds, the same point about fences applies to truths, which also seems to form an extremely heterogeneous category. The heterogeneity of our category of truths may present difficulties for any view claiming that being a member of that category requires having a property that is, or that itself consists in having, some single uniquely substantive feature $F$; for it is not obvious that there is any such feature shared by all and only the truths. There are subclasses of truths for every sector of discourse—dental ceramics, environmental studies, children’s literature, etc.—many of which exhibit interesting differences in evaluative standards, methods of verification, referential and inferential commitments, and ontological posits.\textsuperscript{14}

Further there are truths decussating all such discourse sectors—logical truths, timeless negatively reinforcing pulse, are neither erect nor constituted from typical or ‘sturdy materials’. Perhaps fences are simply conventional flat boundaries; but this too would exclude certain naturally-occurring fences, fence-lines, or other fence-like structures (e.g., long stretches of bamboo lattices, elongated thickets of thistles and thorns); it might also accidentally include the defensive line of the 1970s Pittsburgh Steelers—the “Steel Curtain.” And what properties sharply distinguish between walls and fences, if any? Solidity? Neither the Berlin Wall nor the Great Wall of China are thought of as fences, though insignificantly dissimilar structures are (e.g., the security fence separating Israelis and Palestinians, the proposed 2,000 mile fence along the U.S./Mexico border).

\textsuperscript{14} What I am calling discourse sectors is much closer to the now-classic notion of a language game, and involves subtle differences from what others have called propositional domains or domains of discourse. Lynch proposes that propositional domains be organized and individuated according to the types of concepts composing their propositional contents (2004b: 399, forthcoming), and seems to suggest that propositions have their domain-membership essentially, and that no atomic proposition may be true in one domain and false in another since no atomic proposition is a member of more than one domain. I cannot see that the project of trying to rigidly group what he calls areas of thought is a viable one.
truths, contingent truths, conventional truths, synthetic a priori truths, future truths, profound truths, self-reflexive truths, etc.

The observation that there are many different kinds of truths, and that our category of truths is heterogeneous, has led some to reckon that many alethic theories appealing to a particular property—say, truth, or what it consists in—may nicely explain what is definitive of some subclasses of truths, but will inevitably run up against counterexamples when attempting to generalize across all subclasses. That is, while certain explanations prove illuminating because they fix upon certain regularities among subclasses, all such explanations will be partial at best if no regularities are found to extend throughout our truth category. This point is perhaps unsurprising. Researchers investigating the psychology of human categorization have long established that many categories are not structured or definable by a feature had by all and only their members; to a considerable extent, this is confirmed by our fence category, which appears instead to be radially structured rather than structured by necessary and sufficient conditions. If so, then appealing to such features may be helpful only for defining what it is to be a prototypical member of our fence category.

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15 See, e.g., Wright (2005); Lynch (2001: 723–25, 735–38; 2005b: 385; 2005d: 341–42; forthcoming); Horgan & Barnard (2006); Horgan (2001). For his part, Lynch points to structural relations like causal/referential correspondence to mind-independent objects as a paradigmatic example. He suggests that a theory appealing to this sort of relation may nicely explain, e.g., botanical truths about eucalyptus groves; but generalizing to, e.g., architectural or archaeological truths about mind-independent but human constructed artifacts such as cantilevers and amphorae is troublesome, and seems to run up against counterexamples in those sectors of discourse where non-causal correspondence relations seem to be less gripping—e.g., jurisprudence, Southern gothic literature, and mathematics, which may be better analyzed in terms of coherence with a body of law, story of fictional events, or calculus of abstract numbers. See Sher (2005: 318–25) for instructive criticism of these sorts of examples.
Taken to its logical endpoint, the analogy legitimates a skeptical challenge from the sheer variety of truths in different sectors of discourse to the possibility of there being no single uniquely substantive feature $F$—whether truth or correspondence or anything else—that structures the category of truths.\textsuperscript{16} This challenge has gone by several names—most recently, the disunity challenge, levels-of-truth dilemma, problem of the common denominator, and scope problem.\textsuperscript{17}

3.2.1. The levels-of-truth dilemma. Many theorists have used this skeptical challenge in order to find fault with the correspondence theory of truth. For example, George Lakoff, Mark Johnson, and colleagues have used it to motivate what they call a levels-of-truth dilemma, upon which they suppose the correspondence theory of truth is impaled. Before explicating what that dilemma is, and why their use of the skeptical challenge against the correspondence theory fails, let us get clear about just what they take the correspondence theory to be.

According to Lakoff and Johnson, \textit{in its simplest form, the correspondence theory can be stated as follows: A statement is true when it fits the way things are in the world. It is false when it fails to fit the way things are in the world} (1999: 98). Although it inferior to Aristotle’s maxim, this statement might be adequate as a statement of what the correspondence intuition is about; but it is not the simplest form by which to state the correspondence theory. And neither is it the most appropriate, nor the most accurate, nor

\textsuperscript{16} The problem is a problem for correspondence theorists on at least two levels. It applies to both their claims that the category of truths is structured by a single uniquely substantive feature $F$—namely, truth—as well as their more substantive claim that truth is a single uniquely substantive feature $F$—namely, correspondence—that is shared by all and only the truths.

\textsuperscript{17} See, e.g., Wright (2005); Sher (1998, 2004: 8); Lynch (2004).
the form with which most correspondence theorists would be willing to use as the organizing principle for their workaday view (especially given that it fails to distinguish between correspondence and deflationary theories; see, e.g., Horwich, 1990; Patterson, 2003, 2004). Let me provide, on their behalf, a few emendations. We have already seen, for instance, that \( (esp) \) is a more precise statement of what the correspondence theory of truth is a theory of—i.e., truth. To improve Lakoff and Johnson’s statement for them, we should reformulate it by, minimally, replacing the term \( \text{when} \) with a more appropriate logical connective such as \( \text{iff} \); by replacing the term \( \text{fits} \) with something more appropriate to the correspondence theory, such as \( \text{corresponds} \) or \( \text{correspondence} \), possibly by replacing \( \text{statement} \) with something more neutral (given that different correspondence theories have different commitments as to the primary or proper bearer of truth), and by pluralizing \( \text{way} \) (given that correspondence theorists need not be committed to, or saddled with, the further view that there is one unique way the world might be or anything other form of metaphysical monism).\(^{18}\) A further emendation might be to replace the term \( \text{things} \) with something that allows for, e.g., event or situation structure (given that correspondence theorists presumably intend their view to be understood as applying to more than just things or objects). We have already seen that either of (4a) or (4b) is a simpler and more general schema; where \( F \) is treated as correspondence to or with reality, then the following schema gives us a better version of than what we have from Lakoff and Johnson:

(5) \(x\) is true iff \(x\) corresponds to how the world is, and false otherwise.

There are other commitments and postulations that can be added to either \((csp)\), \((4)\) or \((5)\), but these principles begin to make explicit the basic form and defining commitments of the correspondence theory of truth.

With this emendation in hand, let us turn to Lakoff and Johnson’s levels-of-truth dilemma. Because the ideas motivating the dilemma are interesting and commonplace,\(^\text{19}\) I will quote in full. They wrote:

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\text{Here is the problem that levels of embodiment present for the classical correspondence theory of truth: Truth claims at one level may be inconsistent with those of at another. Color provides an obvious example. At the phenomenological level of conscious experience, we perceive colors as being “in” the objects that “are” colored. At this level, there are common truths: Grass is green, the sky is blue, blood is red. ‘Green’, ‘blue’, and ‘red’ are one-place predicates holding of grass, the sky, and blood. Here is what the correspondence theory would say about sentences like ‘Grass is green’. The word ‘grass’ names things (or stuff) in the world. The word ‘green’ names a property that inheres in things in the world. If the green-property inheres in the grass-things, then the sentence ‘Grass is green’ is true. This is a phenomenology-first account of}
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\(^{19}\) For example, half a century before Lakoff and colleagues, the linguist Samuel Hayakawa, also using color terms to make the point, put the levels-of-truth dilemma as follows, and put it much better and in a way that reveals why it is unproblematic for the correspondence theorist: [i]n all such behavior we confuse the abstraction which is inside our heads with that which is outside, and act as if the abstraction were the event in the outside world. […] In a wider sense, however, we are confusing levels of abstraction—confusing what is inside our heads with what is outside—all the time. For example, we talk about the yellowness of a pencil as if the yellowness were a ‘property’ of the pencil and not a product of the interaction of something outside our skins with our nervous systems. We confuse the two lowest levels of the abstraction ladder and treat them as one. Properly speaking, we should not say ‘The pencil is yellow’, which is a statement that places the yellowness in the pencil; we should say instead, ‘That which has an effect on me which leads me to say ‘pencil’ also has an effect on me which leads me to say ‘yellow’ (Hayakawa, 1939: 200).
truth, because it implicitly privileges that level over scientific truth claims. The science of color is irrelevant here. The word green has a meaning that reflects our conscious (phenomenological) experience of colors as properties inhering in objects themselves; that is, the meaning of ‘green’ is a one-place predicate denoting a physical property in the world. If grass is green, then there is greenness in the grass. In much of the Western philosophical tradition, truth is taken to be absolute and scientific truth claims take priority over nonscientific truth claims. We know from the neurophysiology of color vision that colors do not inhere in objects themselves. They are created by our color cones and neural circuitry together with the wavelength reflectances of objects and local light conditions. At the neural level, green is a multi-place interactional property, while at the phenomenological level, green is a one-place predicate characterizing a property that inhere in an object. Here is the dilemma: A scientific truth claim based on knowledge about the neural level is contradicting a truth claim at the phenomenological level. The dilemma arises because the philosophical theory of truth as correspondence does not distinguish such levels and assumes that all truths can be stated at once from a neutral perspective. Yet there are distinct “truths” at different levels; and there is no perspective that is neutral between these levels. To state both the phenomenological and neural truths at once requires looking at both levels at once. The problem is that the correspondence theory requires one consistent, level-independent truth. (1999: 104–05)

After having postulated three distinct levels at which concepts are embodied—the neural, the phenomenological, and the unconscious (in other works, they postulate a further cultural level)—Lakoff & Johnson claim that inconsistencies arise between ostensibly true statements at different. Of course, the idea that there are inconsistencies among truths is little-to-nothing more than an affirmation of the claim that the category of truths is a heterogeneous category, and thus a restatement of the skeptical challenge itself. This version of the skeptical challenge does not depend on Lakoff et al.’s work on embodiment or levels thereof. Again, to find the dilemma, and a fortiori the skeptical challenge, gripping, one need only follow Lakoff et al. in thinking two things: firstly, that there are different kinds or levels, as they put it, of truths or that our category of truths is
somehow heterogeneous, and secondly, that the correspondence theory of truth requires a “flat” or homogenous view that precludes making distinctions among these so-called levels of truths. As it turns out, the only thing that falls flat is Lakoff et al.’s version of the skeptical challenge.

The correspondence theory may indeed face insuperable problems, but none of them are the problems posed by Lakoff et al. Even if given the improvement on their attempt to state [its] simplest form, the correspondence theory as defined by (5) is not committed to either consistency between all individual truths, and does not require or otherwise assume the existence of a single level by which all truths can be stated neutrally or in a perspective-free way. Hence, Lakoff et al. read into (5) a further commitment that need not be there; for correspondence theorists can perfectly well commit to (5) without thereby committing to the further claim that the variable $x$ abbreviates $x$-at-one-and-the-same-level. Quite the contrary, correspondence theories that relativize to levels have been in play at least since Tarski invoked hierarchal levels languages in his conception of truth, and pluralist versions of the correspondence theory have been developed where all truth-bearers correspond, albeit in different ways (Sher, 1998, 2004, 2005). Hence, there is not obviously any dilemma or contradiction here—indeed, obviously not—any more than there is maintaining that Martin wears a size 11 shoe in the United States but wears a size 45 shoe in the United Kingdom; or in twice stating the same truth—one that uses mass in the sense of Newtonian physics, the other in the sense of Einsteinian physics; or in stating truly that memory, understood one way, involves the conversion of short-term memory traces to stable long-term memories through stimulus repetition and in the absence of retrograde interference, yet, understood
another way, involves the production of robust excitatory postsynaptic potentials resulting from the transcription of genes expressing CREB proteins, the activation of protein kinase A and the release of its subunits, and the conversion of second messenger systems such as cyclic adenosine monophosphate (cAMP). Such examples go on, ad nauseum. There is no difficulty here, since Lakoff et al.’s levels-of-truth dilemma absurdly supposes that translation between levels, frameworks, scientific developments, and reductions is unavailable to the correspondence theorist. Alternatively, the levels-of-truth dilemma can be shown to collapse for a different reason. Given that any correspondence theorist should be able to assent in principle to the determination argument A given in chapter one, it follows that any correspondence theorist should have no truck, in principle, with the claim that the truth values of a given truth-bearer vary if the facts about how the world is remain constant but the facts about meaning vary. Where how the world is does in fact remain constant but the meaning of terms varies—pace Lakoff et al.—across levels, then so too do the truth-values of statements made about them. Any of these considerations are sufficient to show that, if a problem at all, the levels-of-truth dilemma is a problem for a correspondence theory of truth that no correspondence theorist endorses.

3.2.2. From truth to truths. Still, Lakoff and colleagues propose that the correspondence theory of truth be replaced with a correspondence-like account of how cognizers’ understand truths. They offered (1999: 510) the following revised definition,
A person takes a sentence as ‘true’ of a situation if what he or she understands the sentence as expressing accords with what he or she understands the situation to be.

Lakoff & Johnson’s inference to \((fwh)\) is based on the idea that a necessary condition on \(p\) being a truth is that \(p\) be in a humanly conceptualized and understandable form (see also Field, 1994). Although they present this as a radical departure from philosophy in general, it is difficult to imagine any philosophers—or anyone, really—disagreeing with the claim that taking to be true is intimately bound up with understanding. As they put the key idea motivating \((fwh)\), what we take to be true in a situation depends on our embodied understanding of the situation, which is in turn shaped by [various] factors. Truth for us, any truth that we can have access to, depends on such embodied understanding, and again, there is no truth for us without understanding; any truth must be in a humanly conceptualized and understandable form if it is to be a truth for us (Lakoff & Johnson, 1999: 102, 106). Lakoff & Johnson go on to suggest that this condition—i.e., that \(p\) be in a humanly conceptualized and understandable form—in turn depends on a cognizer’s embodied understanding of the situation. Nevertheless, there are some dodgy elements in Lakoff & Johnson’s conception of \((fwh)\) as a rival to, and improvement on, the correspondence principle or any of its derivatives. First, \((fwh)\) pivots on the term accords. Such a term is usually taken to be synonymous with, or a close cognate of, correspondence—at the very least, these two terms are closely related senses within the same lexical category. Consequently, the revised definition merely pushes the problem of specifying the correspondence or accordance relation \(F\) backwards. Second, Lakoff & Johnson’s revised definition is about the word true rather than a property of sentences—i.e., truth—which is made plain by their use quotation marks. Third, even if
the root idea were correct, their definition only provides one sufficient condition on what it is to take a sentence as true. There may also be several reasons for thinking that other truth-bearers are what people take, or should take, to be true. Lastly, Lakoff et al. need to address or explain away the intuition that there exist truths for which none of us has any understanding (due to limitations in intelligence, vocabulary, memory, ratiocinative prowess, etc.).

These reasons suggest that Lakoff et al. have at most given a theory of “truth,” which is to say, a theory about something other than truth. Likewise, Jackendoff makes this his preferred approach to truth and other alethic phenomena, aiming to shift the focus

[…] from the question ‘what makes sentences true?’ to what I take to be the more ecologically sound question, ‘how do we humans understand language?’ (2002: 329). Of course, an account of how cognizers understand truths is an important part in a comprehensive semantic theory that explains comprehension. But without explicit argument, such an account should not be confused with a theory of truth per se. In making this distinction, one comes to realize that Jackendoff and Lakoff et al. have done little more than engage in a shell game. Their attack is on the very same confusion that they themselves have worked to create—namely, the conflation of semantic and alethic theories. Hence, the replacement they advocated turns out to bear some of the responsibility for the propagation of the lacuna mentioned in chapter 1. Expunging this false start is therefore an important part of developing a viable alethic theory in cognitive science.
3.2.3. *From the skeptical challenge to alethic pluralism.* However named, this skeptical challenge is sure to sit well with most deflationists—especially those who claim that no reductive or constitutive analyses of the form of either (4a) or (4b) can be had. Yet, the problem posed by this skeptical challenge is not so much a problem for the correspondence theorist as it is for those assuming some form of monism about truth, which is the thesis that there is exactly one way of being true. The reason is that one can consistently remain agnostic about deflationism and reject the supposition that truth, or what it consists in, is a single feature. Hence, whether there is either exactly or at most one way of being true is independent of whether or not deflationism is correct.\textsuperscript{20} So, just as there may not be a single feature—say, fencehood—that structures the category of fences, so too might there be several features that structure our category of truths—i.e., many ways of being true $F$, $G$, $H$, …, each of which is as substantive as you please. As alluded to at the outset, alethic pluralism is the view motivated by such claims.

Crispin Wright’s (1992) view is widely cited as the forerunner to pluralism about truth, but the view is hardly that recent. For example, seventy years ago, Harry Acton suggested that a ‘*suitably stated*’ correspondence theory would be consistent with the pluralist’s observation that there are different ways of being true relative to discourse sectors (e.g. logic, law, psychology) or types of proposition (e.g., necessary, contingent).

\textsuperscript{20} We would do well to distinguish the psychological unreality of the classical theory of categories from the case-by-case utility of employing explanatory principles that invoke necessary and sufficient conditions. Moreover, an inclination to take up a deflationary account of fencehood or truth simply because there appears to be no such $F$ shared by all and only the fences or the truths need not be incompatible with an inclination to formulate illuminating or substantive principles about our fence or truth categories. After all, explanatory principles can be unifying without unifying everything.
[N]ot all true propositions are true because they correspond to the facts. Such propositions as two contradictory propositions cannot be both true do not correspond to facts in the way in which Jack killed Jill might. Thus, the theory I have been examining must hold that ‘true’ is ambiguous, and that propositions in logic are true in a different sense from other propositions. It is very difficult to show what this other sense true can be. This, however, although a difficultly, is not necessarily an objection to the correspondence theory when it is stated suitably. (1935: 191; see also Schiller, 1906).

There is a sense in which the thesis that there are many different ways of being true is uncontroversial—being morally true, necessarily true, justifiably true, etc. This heterogeneity is made possible by the rich and elaborate cognitive processes that constitute truth-apt meaningful content, which suggests that the disunity challenge is an important flashpoint for truth and cognition.

Inevitably, the question arises as to what each way of being true has in common, the rhetorical force of which is to suggest that alethic pluralism is perhaps incoherent or untenable. At the very least, strong alethic pluralism apparently faces at least five interrelated and grave worries. The first worry, which concerns equivocation, is this. The skeptical challenge defeasibly warrants the pluralist thesis that there are multiple

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21 There are serious questions over whether anything other than a faux version of pluralism could be a stable or viable view. Roughly, the problem seems to be that what has come to be known by strong alethic pluralism is too strong, while so-called weak or moderate alethic pluralism ends up not being pluralistic in any interesting sense. Problems with equivocation, mixed inferences, the incapacitation of logical validity and universal generalization, etc. are frequently cited as insurmountable problems for strong alethic pluralism. Admittedly, I myself have cited those problems as problems, though I now have serious doubts and am inclined to think that such worries may be a bit hysterical. For fuller characterizations of weaker and stronger versions of alethic pluralism, as well as discussions of its problems, see, e.g., Wright & Pedersen (submitted); Wright (2005); Wright (1996, 1999, 2001); Tappolet (1997, 2000), Sher (1998, 2004, 2005); Schiller (1906); Putnam (1994); Pedersen (2006); Moser (1993); Lynch (2001, 2004, 2005b,c,d, forthcoming); Horgan (2001); Horgan & Barnard (2006); Beall (2000); Anderson (1998); Alston (2002).
ways of being true \( F, G, H, \ldots \); but then, it stands to reason that the multiplicity of truth properties are known to us only if we do not have a single concept \textit{TRUTH}—i.e., if we have at least some additional concepts of truth for at least some of those additional ways of being true. And if we have more than just a single concept \textit{TRUTH}, then it stands to reason that our use of the term \textit{true} to designate those concepts is equivocal, since we mean different things by that term. One might try to resolve the problem by introducing multiple truth-predicates to correspond one-to-one to each concept or each property. Doing so, however, seems to introduce a further problem with \textit{generalization}. If there are multiple concepts of truth, then introducing different alethic predicates to distinguish among them complicates our ability to form generalizations and dissolves the expressive power that comes with a single truth predicate \textit{is true}. So rather than being able to claim that for any truth-bearer \( x_1, \ldots x_n \) there is a class \( A \) such that \( x \in A \rightarrow \text{true}(x) \), we would be instead committed to the inferring that \( x \text{ is true}_1, \ldots, \text{true}_n \). And this makes it difficult to generalize. A third problem is with \textit{mixed inferences}. If there exists a multiplicity of truth properties differentially denoted by a variety of truth-predicates, then some arguments will have premises and conclusions that involve different truth properties; but then, no single property of truth would be preserved from premises to conclusion. Therefore we must choose between the idea that valid forms of reasoning depend on the uniformity of truth-preservation or that the extension of truth is large or heterogeneous class of features. Fourth is a \textit{compositionality} problem. If a conjunction involves conjuncts with different properties of truth predicated of it, what explains the truth of the entire conjunction? If the antecedent of a conditional is true in a way that is different from the truth of its consequent, what alethic properties does the conditional have? A fifth problem involves
normativity. The point of having a single truth-predicate is that it provides a single, powerful normative standard for assessment irrespective of assertoric or doxastic domain; yet, pluralism about truth seems to fragment the consolidated power of such a norm insofar as it introduces different alethic predicates or truth-values. Consequently, the consensus has it that strong alethic pluralism appears worse than the sickness it is meant to cure, sending sympathizers of pluralism scrambling to formulate more moderate and less potent versions that do not simply collapse back into monism about truth.

By and large, researchers have mentioned these problems, assumed them to be threatening ones, but not discussed them at length. I think there is less to them than meets the eye. But while I am sympathetic to, but am not here trying to defend, alethic pluralism, I will only make a few comments about how these problems might be either managed or (dis)solved. One way of managing their impact is to show that some of these problems derive from others. The problem of generalization, for instance, is in some sense dependent on the problem of equivocation; for it is only if there is equivocation between multiple truth-predicates that generalization over them becomes a problem. Likewise, the problem of normativity is only a problem insofar as the multiple truth-predicates imply a corresponding multiplicity of normative standards of assessment. Once the derivational relations between these problems can be shown, alethic pluralists can confine their attention to dealing with those problems from which others are derived, since solving those problems should preclude the derivations from occurring.

Those problems that arise from the postulation of multiple alethic terms and expressions strike me as the main problems put to alethic pluralists from which many of the others are derived. Because the linguistic data reveal a finite number of senses of true,
and of alethic predicates more generally, coupled with the fact that there are many more concepts and conceptualizations than we have lexical items to designate them, it seems reasonable to suppose that we have multiple concepts of truth with which to represent each distinct property of truth; yet, such a conceptual manifold seems to have the untoward implication that we equivocate in using, e.g., the term true.

So, consider, e.g., the problem of equivocation between expressions, which strikes me as one of the main problems from which these others are derived. But what, exactly, is the problem? The problem is not a problem owing to ambiguity, as some have supposed.\textsuperscript{22} Since the problem is not one of ambiguity, the problem does not appear to be practical or rhetorical one about how adult speakers disambiguate lexical senses—something that might be handled anyway by an empirical investigation of the psycholinguistic mechanisms of disambiguation and context-recovery. Yet, philosophers have suggested that true is used in different senses in different sectors of discourse. Prima facie, the data from chapter two reveals that alethic terms do form a polysemous lexical category, and that true itself is polysemous; hence, truth-talk involves different ways of talking about truth and other alethic phenomena, and the various ways of talking do not involve completely unrelated senses as they do distinct but intimately related senses. Again, e.g., the sense in which true is used adjectivally to talk about correct sentences or equations, and the sense in which it is used as a verb in talking about the process of correcting, aligning, or making straight, are closely related because they share many of the same cognitive domains. Or again, the sense in which truth is used as a count noun is intimately related to its use as a mass noun: they both designate a thing, but differ as to

\textsuperscript{22} See, e.g., Schiller (1906); Lynch (2001: 726); Doss (1966: 297); Acton (1935: 191).
whether it is bounded or unbounded. So, it is not the case that there is but a single, unequivocal term \textit{true} or
truth-predicate. But, as chapter two made clear, this is all just \textit{data to be explained} by an alethic
theory, not a problem to be explained away. As data, it is therefore not a problem that can be shirked by adopting some form of monism or
arbitrarily stipulating that there is a single sense of \textit{true} which is the proper object of study. This is not necessarily to say
that the appropriate response to the problem of equivocation is something like a yawn. Rather, it is to say that the issue of polysemy for
truth-talk is a natural and unproblematic phenomenon that can be handled through a
substantive analysis of the lexical configuration of alethic terms.

3.3. \textit{Modesty and other pitfalls}

The correspondence principle (\textit{csp}) entails that truth has a nature \(F\), that that
nature \(F\) is one consisting in correspondence, and that correspondence be understood as a
multi-place relational property of truth-bearers. But what property is this? It is often
thought that a necessary condition on the viability of a correspondence theory is that it
include an explanation as to what correspondence itself is in order to be plausible.

20\textsuperscript{th} century philosophical training sometimes instills a desire to not say too much
in matters metaphysical. Hence, one might try to keep their badge of correspondence (or
façade thereof) whilst maintaining their so-called \textit{taste for desert landscapes} by treating
the concept \texttt{TRUTH} picked out by the correspondence intuition as the concept of a
relational property of correspondence, but then treat correspondence itself as something
which is itself not further analyzable (i.e., a primitive of the theory), or—if an analysis
must be given—to reconstruct the correspondence intuition as the concept of a generic
relation type (i.e., where the extension of correspondence is simply a set of \(n\)-place relations or relational properties). This is the road to quietism. Quietists have many nearest neighbors, the lot of whom tend to politely decline to pursue traditional truth-related projects; some such neighbors self-describe as being modest. By not indulging the call to further articulate what correspondence is, such that it at least relate truth-bearers to something else, the quietist or modest theorist can avoid taking on metaphysical projects—spurious or otherwise.

Correspondence theorists who seek shelter in such forms of quietism forget themselves. Quietism and modesty particularly tread on the very impetus by which correspondence theorists aim to develop a substantivist, non-deflationary theory; for, at bottom, correspondence theories are far from modest, and the road to constructing such theories does not lead the desert.\(^{23}\) So, since there is no good reason for correspondence theorists to be inherently wary of taking on metaphysical projects, correspondence theorists should avoid this pitfall—something more must be said.

Another, important pitfall for correspondence theorists to avoid saying the wrong thing. In particular, they should avoid treating the relation \(F\) as a “weak” or non-structural relation, such as mere correlation or covariation or association.\(^ {24}\) The explication of the

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\(^{23}\) Marino (2006; see also Vision, 2004; cf. Wright, 1998), for instance, begins by noting that even embellishments of the correspondence principle are still quite vacuous; she offers five principle to remove the vacuity; some are hardly ‘modest’, and those that are only serve to petrify, rather than remove, the vacuity.

\(^{24}\) I am unsure whether the claim should extend to relations of mere counterfactual dependence, where the analysis and description of the correspondence intuition bottoms out in claims that a given truth-bearer’s truth-value would have been different had the world been different in certain ways. True, such relations do entail ontological claims about existence of the relata. Yet, they provide no informative specification of how or why truth-values are changed by changes in the world, and so are wholly toothless when it comes to hinting at just what certain ways the world would need to change in order to
correspondence relation in terms of a principle of correlation was popularized by Pitcher (1964), who distinguished it from a structural relation he called *congruity.*\(^{25}\) A virtue of such weak principles is that they are possibly suited as further descriptions of what the correspondence intuition is about. Further—and besides being an alternative to those involving structural relations that sometimes seem unworkable—they permit a characterization of (approximate) falsity as well as (approximate) truth by mapping truth-values onto numerical values between +1 and −1, which is helpful for introducing multi-valued logics (Wilson, 2000; Beall, 2000).

To be clear, none of this is to claim that approaches focusing on non-structural relations like correlation are worthless; but it is to say that those relations are too weak to shoulder the theoretical lode typically demanded of any version of the correspondence theory. To borrow Heidegger’s phrase, weak non-structural relations are the *point of departure for posing the problem* of explaining why and how it is that truth-bearing could be dependent on how the world is—they are *not yet the solution.* Such relations are something that deflationary, pragmatic, epistemic, and many other varieties of incompatible alethic theories can appeal to in giving their own theoretical reconstruction of the correspondence intuition, which means that weak relations like correlation or covariation or association do not help advance correspondence theories into the competitive fray. What the correspondence theorist wants is not a claim that variables \(x\) and \(y\) (whether truth-bearers and truth-makers, sentences and how the world is, etc.) are correlated, but an explanation of how the values of those variables are related by, inter alia, their internal structure. So, weak relations also preclude any further substantive

\(^{25}\) See, e.g., Acton (1935: 183); David (1994: 22); Austin (1950); Vision (2004).
development of the correspondence theory along the lines of truth-makers (i.e., the very notions of TRUTH-MAKING and TRUTH-MAKERS presuppose a relation of making, which, if not causal, is at least far too substantive than can be had on account based on correspondence-cum-correlation). In sum, a criterion on any correspondence theory seems to be that the relation \( F \) be explicated as a structural relation (Patterson, 2003, 2004).

3.4. Truth is not a structural relation?

3.4.1. Alethic functionalism. I’ve previously noted that analysis and description of the correspondence intuition in terms of the concept of a bona fide structural relation of correspondence is not obligatory, and indeed, many alethic theories absolve themselves from such further descriptions. A core thesis of alethic functionalism, for instance, is that the correspondence intuition should be understood as the concept of a functional kind, not a structural kind. Just as description of the concept of fencehood would falter if it defined our mental representation of our fence category in terms of the structures fences are made out of, so too—on this view—would an analysis and description of the concept TRUTH falter if it defined our representation of the truths in terms of some underlying structural feature. Instead, we should think about truth in terms of what it does for us, i.e., what its function or role is in our cognitive lives.

Subsequently, alethic functionalism is a theory of TRUTH, truth, and other alethic phenomena, which attempts to assuage the worries beleaguered alethic pluralism outlined in the previous sections. In assuaging these worries, it effectively upholds the skeptical challenge confronting the correspondence principle, and the correspondence
theory more generally. Furthermore, because both it and alethic pluralism are the kind of views that can subsume the correspondence principle as a special case, correspondence theorists must confront it in order to maintain their view that \((csp)\) correctly characterizes truth as a bona fide structural relation of correspondence.

I do not find it too far-fetched to suppose that truth is either a functional kind, or a structural kind, or neither, or both. And I am intrigued by the first supposition that truth is a functional kind, but have doubts about it being viable (therefore, I have doubts about the viability of the last supposition that truth is both a functional and a structural kind). And since I am unhappy with the supposition that truth is neither, I will defend a theory according to which truth is a structural kind.

3.4.2. Functional roles, realizers, and the Ramsey-Lewis method. As functionalists have advised (e.g., Lynch, 2001, 2005b,c), we can initially apprehend \textit{function}- and \textit{-role}-talk by thinking about concepts of functional kinds in terms of a functional specification—i.e., a “job description” (per convention, I’ll use those terms interchangeably). For example, to specify our \textsc{vehicle} concept we might provide a description of a job that we think something must perform if that something is to be conceived of as a vehicle. Buses and bicycles transport passengers, as do ski lifts and elevators; cargo planes and oil tankers carry shipments; parents carry their small children; ferries ferry other vehicles, etc. Naturally, we might describe the job of vehicles as that of providing transportation. Such a job description tells us that something counts as an instance of our vehicle category if it performs the function or role of transporting. What it
transports, how it does it, and what it is made of are all interesting features of vehicles, but extraneous for the purposes of describing the overarching job of a vehicle.

By analogy, functionalists suppose that our concept TRUTH is the concept of a functional kind that can be specified by providing a job description; and the job description associated with TRUTH specifies just what function or role something must satisfy to be counted among the truths. Accordingly, what they suppose can be captured by the following thesis.

\[ (6) \quad \text{The correspondence intuition is the concept of a function or role} \ F \ \text{defined and individuated according to a certain functional specification.} \]

For alethic functionalists, functional specifications pick out functions or roles, which means that we can distinguish and dissociate between such roles by distinguishing between the different functional specifications that pick them out. More specifically, for any two concepts \( x \) and \( y \) of different functions or roles \( F \) and \( G \), \( x \neq y \) if \( F \) has a functional specification that is numerically distinct from that of \( G \); if \( x \) and \( y \) are indiscernible, they are concepts associated with one and the same job description of \( F \).

Plainly, being able to dissociate two concepts of functions \( F \) and \( G \) by showing that those functions have significantly different or disparate job descriptions is an important task; TRUTH and JUSTIFICATION, for instance, pretty clearly are concepts of different roles played in our cognitive economy, and the alethic functionalist has a clear account that shows why. But what of alternative and possibly competing functions or roles that fall under the same concept? To put the question less abstrusely, reconsider the analogy with vehicles. Providing transportation is not the only job of vehicles, though it
may be the one first called to mind: certain cars serve only as showroom models; matchbox trucks and remote control airplanes primarily perform the function of being a plaything; parents have many other roles besides toting, etc. And the job descriptions of many other putative vehicles are indistinct or multifarious: a construction crane is a vehicle, though the descriptions of the job it performs are only awkwardly encapsulated as that of transportation; dragsters, zambonis, earth-movers likewise transport their occupants, but only under a forced and rather infelicitous job description; etc. If the functional specifications satisfied by these vehicles are numerically distinct from those satisfied by buses, ski lifts, and ferries, then if the functions or roles of vehicles are individuated and defined by those job descriptions, it seems we are dealing with non-trivially different concepts here: VEHICLE$_1$, VEHICLE$_2$, VEHICLE$_3$, ..., etc.

Consequently, if functionalists are right that the correspondence intuition TRUTH is best described as a single, unique concept of a function or role $F$—and thus themselves avoid the problems that they saddle alethic pluralists with—then much turns on what the right functional specification is. Suppose, for example, that the functional specification associated with the correspondence intuition is that of representing how the world is with maximal accuracy or veridicality; if an alternate specification is instead that of merely “fencing off” veridical truth-bearers from lesser representations (whether partially erroneous, maladroit, weakly sanctioned by the grammar, or just plain false), then we have two numerically distinct specifications; whereas the former describes a job of representing external situations in a particular way, the latter describes a job of partitioning and sorting those representations into groups. Their being numerically distinct and non-identical entails that two distinct functions or roles have been specified.
Perhaps it will be said that the differences between these two particular job
descriptions, or others besides, may make little difference. Yet, if TRUTH is the concept of
a certain functional kind \( F \) in virtue of being associated with a certain job description,
then there is a danger that the functional specification will either (i) un informatively pick
out a single unique functional role (i.e., be so general as to avoid these nuances and
differences), or else (ii) informatively pick out multiple non-identical functions or roles
(i.e., account for these nuances and differences but in a way that multiplies them). Alethic
functionalists therefore need to clarify what makes TRUTH different from other related
concepts associated with other functions or roles \( G, H, I, \ldots \).

Alethic functionalists have followed the well-tread path of metaphysical
functionalists in order to formulate a more nuanced functional specification of \( F \). The
following background assumptions are involved (cf. Lynch, forthcoming). A concept of a
functional role \( F \) is treated as a concept of a higher-order property, i.e., a property of (a
set of) properties. Supervenience, involving property-to-property determination, is
allowed for in the usual way, but supplemented (replaced?) with a notion of realization
given the context of functionalism. Hence, a given higher-order functional role property
\( F \) is realized by a subvenient base property \( \rho_i \); so told, this amounts to a one-one
taxonomy of property realization. Metaphysical functionalism also provides for other
taxonomies involving multiple realizers \( \rho_1, \ldots, \rho_n \) of a role property and involving a
realizer \( \rho_i \) of multiple role properties \( F_1, \ldots, F_n \). These many-one and one-many
taxonomies, respectively, jointly imply a many-many taxonomy involving lattice-like
determination relations (Wright, 2005: 15–16; Endicott, 1998). The analogy with fences
or vehicles may again help make this more concrete: some entity realizes the function or
role of being a fence when it, inter alia, does the job in question; and various kinds of entities can do that job, and many of those entities can perform many other jobs besides (some related, some not).

So, again, it matters a lot how job in question is specified. The functionalist’s preferred explanatory resource is a **platitudene-based strategy** involving the Ramsey-Lewis method for defining theoretical terms. Owing to the legacy of David Lewis, this method divides a description of a theory T like the commonsense conception into what Lewis called its analytic and synthetic postulates.26 The former consists in the theory’s τ-terms—i.e., terms that are new or unknown, used in exotic or unfamiliar ways, have poorly understood referents, or stand for unidentifiable posits or abstracta of questionable repute. Of course, a theory issuing only an analytic postulate would be quite useless—i.e., virtually incomprehensible, and certainly incomunicable. Any definition of τ-terms, then, necessitates a large register of what he called old or original or other φ-terms against which it can be situated—i.e., terms that are already familiar and have conventionally established, well-understood meanings. (The use of necessitates should be taken seriously; for the result of trying to existentially quantify over an analytic postulate would be Ramseification with no content.) The latter comprises the theory’s synthetic postulate.

The basic idea of the method is quite straightforward and broadly holistic: define a term τ, by showing how it is used in the context of the theory T in which it was

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26 The utility of this division is usually associated with Ramsey (1929/1965), famous for having developed a method by which the τ-terms of any given theory could be explicitly defined and eliminated; it does, however, owe as much to Bertrand Russell for having developed a method by which to replace proper names with definite descriptions so as to show how to make sense of our knowledge of entities with which we are unacquainted (see Bohnert, 1967).
introduced (much in the same way that lexemes are defined by a field in lexical field theory, or using computational models such as Latent Semantic Analysis). It proceeds as follows. Firstly, liberally amass an unordered list of principles and platitudes \( (P_1, \ldots, P_n) \), including anything that chimes with the ordinary usage or that issues from the commonsense conception: homilies, adages and aphorisms, pithy quips and slogans, generalizations, truisms, maxims, implicit beliefs, etc. about a wide range of alethic phenomena. These principles and platitudes form the basis of the functionalist’s theoretical reconstruction of the commonsense intuition, and provides the cognitive domain matrix against which it can be educed. For example, consider the following unordered list:

\[ (T) \quad \text{To assert is to present as true, truth is correspondence to the facts, a statement is true when and only when the world is as it is represented, truth helps us to see in much the same way as light, some truths may never be known or may be unknowable in principle, the truth of a sentence consists in its agreement with reality, to be true is to be a fact, truth is when you don’t embellish what you say and so just tell it like it is, honest people typically speak the truth, deliberately asserting what you know to be false is a lie, someone can only assert that a proposition is true if they themselves believe it, …. sentences can be justified without being true and vice-versa.} \]

Let us momentarily grant the alethic functionalist that \( (T: P_1, \ldots, P_n) \) actually encompasses what is distinctive and interesting about the concept targeted for analysis (which is not to say that \( T \) is complete). Secondly, conjoin each item in the list to form a single conjunction \( R \). For Lewis, \( R \)—what he called the postulate of \( T \)—forms the basis for the modified Ramsey sentence, i.e., a first-order description of some target concept \( c_i \) designated by some theoretical term \( \tau_i \). Let the postulate of \( T \) be: \( R(\tau_1, \ldots, \tau_n, o_1, \ldots, o_n) \).
Thirdly, replace all instances of truth-talk and alethic terms with instances of subscripted free variables ranging over nominalized τ-terms. Prefix the resulting open sentence $R(x_1, \ldots, x_n, o_1, \ldots, o_n)$—what Lewis called the realization formula of $T$—with the requisite existential quantifiers for each distinct free variable to form the core component of the modified Ramsey-Lewis sentence $T_R$: $\exists x_1, \ldots, \exists x_n [R(x_1, \ldots, x_n, o_1, \ldots, o_n)]$. In the context of the foregoing example, the result is something like the following:

$$(T_R) \quad \text{There exist some } x_1, \ldots, x_n \text{ such that to } x_{11} \text{ is to present as having } x_1, x_1 \text{ is } x_{12} \text{-related to the } x_3, \text{ a statement has } x_1 \text{ when and only when the world is as it is represented, } x_1 \text{ helps us to see in much the same way as light, some things having } x_1 \text{ may never be } x_{12} \text{ or may be } x_{12} \text{ in principle, the } x_1 \text{ of a sentence consists in its being } x_{10} \text{-related with } x_{10}, \text{ to have } x_1 \text{ is to be an } x_3, x_1 \text{ is when you don’t embellish what you say and so just tell it like it is, people with } x_{13} \text{ typically speak the } x_1, \text{ deliberately } x_{10} \text{-ing what you } x_1 \text{ to be } x_4 \text{ is } x_5, \text{ someone can only } x_{11} \text{ that a proposition has } x_1 \text{ if they themselves believe it, } \ldots, \text{ sentences can be justified without having } x_1 \text{ and vice-versa.}$$

$T_R$ is a single modified Ramsey-Lewis sentence derived from, and logically entailed by, $T$. The derivation $T_R$ is less informative and more abstract than the initial theory (roughly, in the same sense that the statement there is at least one truth logically entails the less informative and more abstract statement there is at least one entity), although—as Ramsey showed—the magnitude is no less powerful because it makes all the same predictions and inferential connections between observational statements. Terms pertaining to truth, truths, truth-talk, judgments-of-truth, etc. do not appear, as well as

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27 Lewis proposed that all non-nominalized τ-terms in $R$ be grammaticalized as nominals for the sake of uniformity; e.g., predicates like codes for motivational salience or is factual could be nominalized as a coding or fact. Applied to truth-talk, the proposal is volte face for those who take the lexical analysis of truth-talk to be a Austin’s camel of a construction.
terms that are conceptually connected and potentially interdefinable with alethic terms (e.g., assert, real, fact, known to be the case); after all, the basic idea is simply to define \( \tau \)-terms en masse. So the point is played out in a Quinean key: the entire commonsense conception is the genuinely meaningful unit of analysis. Of course, identifying TRUTH with the concept of some function or role \( F \) need not entail that there actually is anything that plays the role of \( F \); but assuming that each \( \tau \)-term is fully denotational, \( T_R \) suggests that there is at least one \( n \)-tuple of things which satisfies the open sentence formed by replacing the \( \tau \)-terms with variables—i.e., there is some thing or process that exists, which is related in particular ways to other properties, things, or process.

The deployment of the Ramsey-Lewis method gives rise to the core principles of alethic functionalism. In particular, the realization formula of \( T \) itself allows alethic functionalists to explicitly define the necessary and sufficient conditions under which a sentence \( \sigma \) has an alethic property \( \rho_i \) that satisfies the job description individuating the functional role \( F \):

\[
(7) \quad \sigma \text{ has some alethic property } \rho_i \text{ realizing } F \iff \exists x_i[R(x_1, \ldots, x_n, o_1, \ldots, o_n) \& \sigma \text{ has } x_i].
\]

The formulation in (7) indicates that \( \sigma \) has a property \( \rho_i \) that plays the functional role of truth just in case there is some property that satisfies a particular functional specification of \( F \) and \( \sigma \) has \( \rho_i \). Hence, the Ramsey-Lewis method provides a precise and quasi-formal way to define and individuate the job description that an alethic property must satisfy in order to count as a realizer \( \rho_i \) of the functional role of truth \( F \). From this definition, functionalists can derive a further principle that states a necessary and sufficient
condition under which a veridical linguistic construction counts as a member of our truth-category:

(8) \( \sigma \) is true iff \( \sigma \) has some alethic property \( \rho_i \) that realizes \( F \).
(9) \( \sigma \) is a truth iff \( \sigma \) has some alethic property \( \rho_i \) that realizes \( F \).

As Lynch (2004: 394, forthcoming) has pointed out, principles like (8) and (9) give a necessary and sufficient condition under which a construction counts as a truth, but do not yet specify the nature of truth itself—i.e., what truth consists in.

The deployment of the Ramsey-Lewis method provides for the supposition that truth is whatever property or properties realize the functional role \( F \). So suppose functionalists identify truth with subsets of property instances whose obtaining determines the higher-order functional role property \( F \): e.g., if constraint-satisfaction, isomorphism, and superassertibility are three realizers \( \rho_1, \rho_2, \) and \( \rho_3 \) of the truth-role(s) in different sectors of discourse, and the property of being true is identical with the property of being a realizer of the functional role property \( F \), then it follows that truth is not one thing but three. Accordingly, alethic functionalism turns out to be a version of strong alethic pluralism, with all of its attendant problems and virtues.

Alternatively, functionalists may instead characterize the property of being true with the higher-order multiply realizable functional role of truth, \( F \). Since the former may impact theorists’ abilities to construct a substantive theory of truth that generalizes over what all truths have in common if anything, and since the latter allows theorists to do an end-run around this and other potentially murky issues, the choice has seemed fairly clear. As Lynch—functionalism’s arch advocate—declares: \textit{in every discourse, the}
concept TRUTH is the concept of a particular higher-order property—the property of having the property that plays the truth role for that discourse (2001: 745; see also 2004, 2005b,c; cf. forthcoming). Here, we have a clarification of the original thesis that the concept of truth is the concept of a functional kind: TRUTH is about the property of having a property \( \rho \) that realizes a particular functional role \( F \) in virtue of satisfying a given functional specification. Where functional role properties are higher-order properties, and whereupon the property of having a property realizing \( F \) is itself just such a property of properties, then the functionalist can choose to simplify all of this by supposing that the property of having a property realizing \( F \) just is the property of being \( F \). Such suppositions commit functionalists to giving precisely the reductive or constitutive analyses in (4) also required of correspondence theorists and abjured by more than a few deflationists. The familiar lesson, however, is that different truths can have this property in different ways, i.e., in virtue of having other lower-order properties—coherence, congruence, correlation, superassertability, homomorphism, identity to a fact—that realize it.\(^{28}\)

For functionalists, the virtue of going this second route in identifying truth with the role property rather than its realizers offers a way to accommodate our ordinary intuitions that the truth of our true statements may subtly differ; but it is only a virtue as long as functionalists are careful not to identify truth with a plurality of functional role

\(^{28}\) Sher (2005) presents several reasons for worrying about whether the appeal to non-correspondence realizers is undermotivated, given that alethic functionalists’ criticisms of, e.g., pragmatic, epistemic, and coherence theories of truth equally apply to functionalists’ own appeal to those theories’ constructs as realizers of the truth-role. For Sher, alethic functionalists need not commit to anything other than what she calls forms of correspondence in order to vindicate their anti-monistic intuitions (see also Doss, 1966).
properties, since doing so potentially undermines attributions of conceptual unity; where TRUTH is the concept of a functional role, and functional role properties are proliferate, the concept of truth is disunified. And indeed functionalists (e.g., Lynch 2001, 2005b,c,d) have carefully and explicitly claimed that there must only be one such truth-role. 29 Hence, they have allowed for a plurality of realizers, and so have a rather ecumenical story to tell about why different theories of alethic properties are well-tailored for some sectors of discourse but not others, whilst circumventing most of the putative problems accompanying strong alethic pluralism.

3.4.3. Problems. To recap, alethic functionalists aver that cognizers tacitly believe and are rationally committed to platitudes and principles about truth and other alethic phenomena. These platitudes and principles are differentially weighted to form a theoretical structure, \((T: P_1, \ldots, P_n)\), which is, ex hypothesi, constitutive of the commonsense conception. In particular, articulating \((T: P_1, \ldots, P_n)\) at least yields a functional specification or job description of what the correspondence intuition is the concept of. Such a specification is a specification of the function or role of truths, which is tantamount to a functional specification of some feature \(F\) had by all and only the truths. Therefore, for functionalists, the correspondence intuition is the concept of some feature \(F\) as specified by \((T: P_1, \ldots, P_n)\). The existence of different concepts TRUTH, and TRUTH—though not logically impossible—is ruled out insofar as the elements/nodes of

29 This entails, however, that functionalism is—pretenses aside—a faux version of alethic pluralism because it fails to affirm that truth-bearers can be true in interestingly different ways (Wright, 2005: 13–15). For since there is one and only one way of being true—namely, being \(F\)—irrespective of domain of discourse, functionalists secure the metaphysical and conceptual unity of truth because their view is simply a version of alethic monism.
$(T; P_1, \ldots, P_n)$ are not variable. Hence, anyone who has a folk concept of truth has as their folk concept of truth the correspondence intuition.

Alethic functionalism is a novel and very attractive view with several theoretical virtues and insights. I am sympathetic to it, but think that it is not free of internal problems. Several problems have to do with the use of the Ramsey-Lewis method. For instance, the theoretical reconstruction of the commonsense conception, $T$, provided for by the Ramsey-Lewis sentence can equally serve as a theory of facts, $T^*$, or a theory of assertion, $T^{**}$, or some other theory of a closely-related concept, since all the same platitudes can be used in any such theory. This suggests that the method over-produces, giving us theories $T, T^*, T^{**}$ that have identical content.

A second problem is unique to attempts at using the Ramsey-Lewis method to define true (as opposed to any other theoretical term). In order for the method to be effective, theorists must know the truth-values of every conjuncts of $R$. It follows that theorists must always already have a grasp on TRUTH itself in order to determine the utility of such a method; but then, even if we stipulate on behalf of the functionalist that all of the conjuncts are actually true, the deployment of the method would appear to be circular. Hence, while potentially helpful for defining virtually any other theoretical term qua functional kind, it cannot be used for defining truth or for explicating the correspondence intuition. Alethic functionalists must therefore to look for a new method for developing the functional specification associated with the truth-role.

A third and related problem—one that I shall focus on—is that functionalists incur the onus of having to answer the question—and not reciting a few examples—of what platitudes and principles constitute the conjuncts of $T_R$. This question is of utmost
importance for their view to be viable, and cannot be pushed back or punted on in any way. Basically, this is the problem of determining conditions for inclusion or exclusion of conjuncts into $T_R$. The problem is serious, since it is well-known that the Ramsey-Lewis method is only useful in cases where all conjuncts are true, and that a single false conjunct will falsify the entire postulate of $T_R$, as well as the realization formula of $T_R$ and every derivation from it. For whether the $\tau$-term under analysis denotes something real depends on whether the theory that introduced it is true. So, the viability of functionalism turns on its solution.

What, then, are those true conjuncts of $T_R$? If they are folk-theoretic principles and platitudes—although, I have argued otherwise—which principles and platitudes and which folk are included? Do all folk assent, endorse, and commit to the same platitudes? Lynch has suggested that we can massage away such issues by claiming that the principles are those that the folk tacitly believe or are rationally committed to.

\[T\]he principles we employ in our folk theory are those the folk tacitly believe, or are rationally committed to. They aren't those principles that result from technical philosophical argument: thus principles that concern the nature of correspondence, reference, coherence, superassertibility, and the like are not part of our folk theory. (Lynch, 2005b: fn, 2005c: 35)

Yet, the appeal to tacit beliefs only pushes the problem back—i.e., which tacit beliefs of which folk make up the list of conjuncts? If all of them, what are they? Admirably, Lynch (forthcoming) has given a few examples; what is needed are not examples but a complete specification.
Theorists like Lynch who sharply distinguish between the networks of concepts, intuitions, and platitudes tacitly believed or rationally committed to by the folk, and those that occur in technical or philosophical theories, seem to be committed to the existence of some qualitative difference. Here is Chomsky making the same point.

_A good part of contemporary philosophy of language is concerned with analyzing alleged relations between expressions and things, often exploring intuitions about the technical [terms] ‘denote’, ‘refer’, ‘true of’, etc. said to hold between expressions and something else. But there can be no intuitions about these notions, just as there can be none about ‘angular velocity’ or ‘protein’. These are technical terms of philosophical discourse with a stipulated sense that has no counterpart in ordinary language._ (2000: 130; cf. Toohey, 1939: 492)

With Lynch and Chomsky, I concur that the existence of such a difference seems likely. To bring it into relief, it might be worth noting that, although there are few detailed and careful empirical studies of the ordinary conceptualizations achieved by non-experts—the shining exception being Arne Naess’s 1938 monograph ‘Truth as Conceived by Those Who Are Not Professional Philosophers’—the findings of those studies generally indicate a significant disconnect between the intuitions, concepts, and principles that non-experts have about alethic phenomena on one hand, and experts’ successive theoretical reconstructions of those intuitions on the other. As Lynch (2005: 29) pointed out—rightly, I think—this disconnect simply shows that the study of truth is centrally a philosophical one—i.e., it concerns phenomena that are simultaneously strange and
familiar, as Lynch put it. In a vivid example, compare what Barsalou & Wiemer-Hastings call the representative response about the concept TRUTH from their pilot study.\(^\text{30}\)

\begin{quote}
(As a) concept true always (seems to be) used to refer (to) something (that is) dependable and not seen to be variable (so there’s a) sense constancy true always (seems to) kind of compel people (to) think about (what) really (is what their) beliefs really (are or how they) really think things should be um (and in) all (those) instances (the kind of) idea (of) rarely [unintelligible text] (seems to) invest (it with a kind of) weight (of) um significance and I mean in the sense of um (it’s kind of) difficult to talk about true (as a) cultural
\end{quote}

\(^{30}\) Barsalou & Wiemar-Hastings (2005) report the results of an exploratory study designed to further specify the content of TRUTH. In that study, they generated several different lists of terms expressing concrete, intermediate, and abstract concepts (including variance in grammatical categories (e.g., truth became a count noun (a truth), a verb phrase (to true), and an adverb (truly)), and presented them to 20 undergraduates either in isolation or in a context; subjects were asked to perform a free association task. Responses were analyzed according to two different coding schemes updated from previous studies. The first scheme analyzed data by 45 subcategories; the authors report that since these distinctions yielded nothing of interest, they were aggregated into five main categories (taxonomy, entity, setting/event, introspective, and miscellaneous), which yielded the following proportions. The second scheme was more intensive, segmenting data into clusters and analyzing them by, e.g., subjects’ response latencies, length and duration of response, and whether and how those clusters were hierarchically related. Barsalou & Wiemar-Hastings think that this study demonstrates something about the content of concepts across different grades of abstraction. Specifically, they think that it demonstrates (i) the determination of conceptual content by context, insofar as both concrete and abstract concepts share situational content; (ii) that concrete and abstract concepts differ in “situational focus”—i.e., concrete concepts pertain more to physical objects; (iii) that abstract concepts exhibit a greater amount of organizational complexity because they appeal to more diverse categories of information; and (iv) that the situational content of abstract concepts could, in principle, be simulated. Rather than demonstrating what the general nature of abstract conceptual content is, I find that this study merely offers one way of describing how the conceptual content of, e.g., TRUTH is spontaneously conceived by 20 undergraduates who say whatever comes to mind when prompted with certain lexical items. At most, only a more modest inference from subjects’ responses to a conclusion about the commonsense conception would hold, since abstract conceptual content involves unenumerably many layers of increasingly technical semantic structures and so is far richer and more substantive than what can be captured by any aggregate of one minute, folk-theoretic responses like the one cited above. More generally, what this study indicates is the dipolar relationship between the commonsense conception and theoretical reconstructions thereof.
scholar after post-modernism but I think it [true] lingers. (2005: 145; see also Barsalou, 1999; for several more equally interesting and demographically varied examples see Næss, 1938: 32–8)

with the (highly typical) description of the same concept used by Heidegger to begin his essay, *The Essence of Truth: The being-true of the proposition means such correspondence. What then is truth? Truth is correspondence. Such correspondence obtains because the proposition is directed to the facts and states of affairs about which it says something. Truth is correctness [Richtigkeit]. So truth is correspondence, grounded in correctness, between proposition and thing* (1988/2002: 1).31 These two descriptions might be taken as exemplifications of two types of data, each pertaining to the correspondence intuition. The former consists in those target structures actually achieved by cognizers in solving the problem of coding in both free association and Socratic questioning tasks, and the latter consists in an idealized theoretical reconstruction that abstracts away from those target structures. The disconnect occurs whereupon the idealized theoretical reconstruction fails to track the ordinary unintellectualized folk conceptualizations, and instead uses different vocabulary in different ways, the terms of which invoke a significantly different set of cognitive domain matrices.

31 Although Heidegger appeared to be parodying this concept, he should be interpreted as having consistently held throughout his career that there is something obvious and unobjectionable about the way in which our ordinary ways of conceiving of TRUTH are framed in terms of a correspondence relation. This interpretation, which is discussed at length in Wright & Hickerson (unpublished manuscript), is born out by several of Heidegger’s remarks in *Being and Time*, but elsewhere besides: in proposing our “definition” of ‘truth’ we have not shaken off the tradition but we have appropriated it primordially (1927/1962: 262; 1988/2002: 1); in *The Metaphysical Foundations of Logic*, Heidegger (1984: 125) explicitly averred that difficulties generated by traditional correspondence theories do not warrant the rejection of the correspondence intuition. In sum, he seemed to hold that the concept of truth as correspondence need not amount to anything mysterious or metaphysically cantankerous—at least not until it is reconstructed as an explanatory principle in terms of a bona fide correspondence relation.
Subsequently, attempts to use as the conjuncts of \( R \) actual folks’ expressions of their own tacit beliefs, rational commitments, and platitudes, such as those of the subjects in Næss’s (1938a,b) study or Barsalou & Weimer-Hastings’s (2005) pilot studies, are likely to be counterproductive for alethic functionalism (undergraduates say and believe wacky things sometimes), since they can be—and likely are—inconsistent, defeasible, incorrect, etc. And ending up with even a single inconsistent, defeasible, incorrect, etc. conjunct spells trouble, since, again, whether the \( \tau \)-term under analysis denotes something real depends on whether the theory that introduced it is true. On the other hand, attempts to use as the conjuncts of \( R \) philosophers’ expressions of folks’ own tacit beliefs, rational commitments, and platitudes, yield just that: philosophers’ theoretical principles and platitudes (of course, philosophers say and believe wacky things sometimes too).

In any case, the possible existence of such a qualitative distinction among candidate conjuncts of \( R \) immediately raises a slew of additional and interesting questions. Which platitudes or tacit beliefs or rational commitments are those that don’t result from technical philosophical argument? Which are those that the folk can have no intuitions of? By what criteria can we distinguish these lists? Of course, a given term can occur in both technical and non-technical parlance: a logician may have a particular definition or stipulated sense of \textit{refers} or \textit{fact} or \textit{corresponds} in mind whereas my grandmother might have used the same terms without the benefit of being privy to such knowledge. And even the most prosaic terms and phrases like \textit{sentence}, \textit{representation}, \textit{what was said}, etc. have highly theoretical connotations. What is the difference between a logician’s usage of \textit{truth is when you don’t embellish what you say—you just tell it like it
is and my grandmother’s? Why is the principle that the truth of a sentence consists in agreement with reality precluded from being part of my grandmother’s conception of truth in cases where it results from technical philosophical theory? When is correspondence like proteins or angular velocity? Can folk-theoretic platitudes be inconsistent, defeasible, incorrect? Or are platitudes analytic—just correct by stipulative or ostensive definition? When do platitudes about truth and other alethic phenomena cease to be mere truisms? Is there a particular level of generality/specificity at which some potential conjuncts of $T_R$ should be excluded or are otherwise counterproductive? Are functionalists antecedently committed to a thesis about the literality of the meanings of every conjunct? What happens when putative conjuncts of $T_R$ themselves involve polysemous terms? If those platitudes instead issue from some technical or philosophical theory, which specific theory issues those principles and platitudes that factor in the postulate of $T$? What meta-theoretic principles govern the inclusion of implicit beliefs and explicit platitudes?

Attempts to answer such questions, and thus provide a set of criteria for distinguishing folk-theoretic platitudes from philosophical principles, continuously run up against counterexamples. Most are a priori, but a few are obtained by empirical observation and experience. Many principles will seem controversial to some, while some will appear to be obvious to many; other principles might be intuitive to some folk but not others (relative to who “the folk” are); many have been held by sages and simpletons alike.32 Their being called truisms suggests that they are true; but not all

32 Being able to characterize the commonsense conception requires knowing both who ‘the folk’ are, and what it is that they tacitly believe or are rationally committed to.
obviously are, and a small subset involves principles that are patently inconsistent. So, incontrovertibility turns out to have problems, since it is not clear which truisms actually have that feature. Many platitudes are actually the result of years of technical philosophical arguments; others merely involve technical notions or require ontological posits alien to everyday vocabulary. Indeed, as even a cursory glance reveals, platitudes concerning the nature of correspondence, reference, coherence, superassertibility, and the like are not excluded from the commonsense conception—quite the contrary. Some are aphoristic or involve idioms peculiar to some linguistic communities; and while most are fairly uniform expressions of the same plain idea, some hide conceal deeper meanings imbued in cultural heritage. The list as a whole is quite unsystematic. In the case of TRUTH, many of these platitudes will turn out to be minted from the scholastic translations of Aristotle (since they are compiled by philosophers with a philosopher’s interests); these include the classic maxim attributed to him in his Metaphysics, which I have already shown to be incompatible with the correspondence theory of truth, as well as the views of medieval Islamic philosophers that truth [ṣidd] is conformity with the authenticity [ḥaqq] of affairs [shayā‘], and many more turn out to be translated reformulations of the Thomistic slogan veritas est aequatio intellectus et rei. Further problems are encountered when the terms of these platitudes are vague, involve figurative language, or are only half-true. Further, many involve antecedent metaphysical or epistemological commitments that are themselves incompatible with each other.

In that case, it is simply an empirical question as to whether the folk have, use, or are committed to principles involving correspondence, reference, etc.

For a description of varying alethic notions and uses of alethic terms in early Islamic philosophy, see Smirnov (1997).
In short, it is a serious question as to what the conceptual content of the commonsense conception is, and how to determine it. And the alethic functionalists’ platitude-based strategy has not yet provided an adequate analysis. Perhaps the main reason why is that theorists have been unable to articulate and converge upon a set of non-arbitrary criteria as to what counts as a constituent of the network of platitudes constituting the commonsense conception. Determining the criteria for inclusion and exclusion is made more difficult given that the Ramsey/Lewis method works best on a “more-the-merrier” basis. The problem is particularly acute for those theorists who posit a sharp distinction, and thus inherit a commitment to there being some qualitative difference between its folk-theoretic platitudes and those constituent principles of alethic theories. And the answers of alethic functionalists to these and other questions have

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Both Sher (2005) and Wright (2005: 21) also independently argue that the use of platitude-based strategies is antithetical to functionalists’ attempts to provide a non-deflationary theory. Functionalists may be able to whittle down the list of conjuncts to only the most universal or necessary. Hence, following the initial compilation is a more detailed and rigorous scrutiny as to whether the lists the right kind of conceptual plausibility and can be deductively used to articulate an explanatory model. But this will only yield a specification of our TRUTH concept in a way that bottoms out in taking the nature of truth merely to be that of doing something truth-like. Further, as Bohnert (1967) showed, different Ramsey sentences for different concepts \( c_i \) and \( c_j \) are less useful than a single Ramsey sentence: breaking up the Ramsey sentence into smaller sentences entails loss of content. So if alethic functionalists are committed to using the Ramsey-Lewis method, they should strive for a single, maximally informative, and precise specification of our TRUTH concept by adding—not subtracting—platitudes.

Research on the commonsense conception only brings out the criteria problem into relief. For example, in his *Truth to Life* (2004), Lynch proposes four “platitudinous truisms”: (i) truth is objective, (ii) truth is good, (iii) truth is a worthy goal of inquiry, and (iv) truth is worth caring about for its own sake. Pace Lynch, these so-called truisms are tacit folk beliefs and rational commitments that constitute part of the folk-theoretic network, and articulating them only serves as reminder about what TRUTH is and why it matters. However, each thesis is simultaneously a conclusion of Lynch’s technical philosophical arguments. Of course, it may be that many folk tacitly believe that, e.g., truth is objective or is good independently of any particular text’s dialectic and argumentation; but it’s no less implausible that other folk may come to believe or commit.
been few and far between. I find the advantages of alethic functionalism to be genuine but the criticisms serious.

The existence of a qualitative difference between folk theories and technical theories suggests that we should distinguish three things: (i) the cognitive contents actually achieved by cognizers (e.g., in solving the problem of coding during a given usage event), (ii) the commonsense conception \( C \) and the correspondence intuition that are initially posited as part of the explanans of a theory about how cognizers have the discriminatory ability to make truth-conducive judgments about what is and is not the case, and (iii) the abstract theoretical reconstructions of \( C \) and the correspondence intuition that further explain and analyze the operationally defined theoretical constructs invoked. As we have seen, alethic functionalists invoke the Ramsey-Lewis method to analyze \( \tau \)-terms like \textit{truth} and \textit{fact} by holistically situating them within the context of the theory \( T \). So consider the following question: if the correspondence intuition \( \cap \) is a core unifier of the commonsense conception \( C \), both of which are theoretical posits, then is \( T \) a folk theory or a technical meta-theory?

Ironically, I think that alethic functionalists sometimes ignore or conflate differences between the two. There are many ways of making the distinction between \( T \) as a folk-theory versus a technical meta-theory; perhaps the most obvious is that the latter, but not the former, contains \( \tau \)-terms—i.e., prima facie, folk theories do not contain \( \tau \)-terms. The very idea of a \( \tau \)-term is the idea of something that we know not what, and for which our ordinary unintellectualized intuitions and experiences fail us; by definition, a \( \tau \)-term is something that we do not really understand. Yet, the vocabulary used in folk-

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to these truisms precisely \textit{because} of it.
theoretic adages and platitudes is none other than the kind of vocabulary that ordinary folk already have excellent command over, and so cannot fail to understand. So if folk-theoretic adages and platitudes do not involve $\tau$-terms standing in need of analysis or definition, then presumably the vocabulary of the folk is exhausted by $o$-terms—from which it follows that alethic terms like truth and fact are involved as $o$-terms if they are involved in folk-theoretic adages and platitudes at all. And yet, the very point of invoking the Ramsey-Lewis method is to define some $\tau$-term(s), and is precisely not to define any $o$-terms. Consequently, any such analysis of $o$-terms—whether those of the folk or those of theorists—would be gratuitous; for $o$-terms are those that have achieved unit status by definition. Defining $o$-terms would undercut the very motivation to invoke the Ramsey-Lewis method in the first place.

So, since the vocabulary of the folk is presumably exhausted by $o$-terms, then if folk-theoretic adages and platitudes generally do not involve $\tau$-terms, then—pace alethic functionalism—the $\tau$-terms analyzed by invoking the Ramsey-Lewis method must be the $\tau$-terms of a technical meta-theory—e.g., such as that involved in reconstructing the correspondence intuition as the concept of a non-structural relation. Such claims are bolstered with a cursory look at the examples of folk-theoretic adages and platitudes proffered by functionalists and others, which reveal that the vocabulary involved is decidedly un-folksy.\[36\]

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36 For example, in ordinary discourse, the term proposition is understood as a nominalization of the verb propose in the sense of the statement of a position (e.g., proposition 187 was overthrown). Accordingly, it invokes conceptualizations of the activity of making a proposal or proposing in (e.g., he was propositioned). As far as I can tell, non-philosophers neither tacitly believe nor are rationally committed to platitudes or principles about Russellian propositions, plonastic propositions, Fregean thoughts, etc. If sentences like tell me your propositions are therefore interpreted as tell me your
This line of reasoning ostensibly raises a puzzle for alethic functionalists because it seems to have the consequence that folk theories of truth and other alethic phenomena involve no analysanda. What the folk are rationally committed to or tacitly believe about \( \tau \)-terms like \textit{truth} and \textit{fact} that result from some technical theory—if they even think anything about them at all—can be of no real utility in defining the semantic values, reference, extensions, or proper usage of those \( \tau \)-terms simply because they are not something that is fixed by the vocabulary of the folk. If the puzzle is a genuine one, it is not a minor problem; for alethic functionalists have supposed both that alethic terms like \textit{truth} can be treated as \( \tau \)-terms and defined using the Ramsey-Lewis method, but by using folk-theoretic principles and platitudes as the input: \textit{[t]he functionalist picks out the truth-role by appealing to our folk theory of truth} (Lynch, 2005c: 35; see also 2001, 2004). But there are good reasons for thinking that \( T \) cannot be a folk theory. Rather, the platitudes in question are the homilies, metaphors, adages, etc. of theorists describing the commonsense conception and explaining its structure.

Lynch (2005c: 38) has suggested that we often recognize when someone is using different concepts; he also suggests that there is no precise way to make such determinations—the criteria for determining role-determining platitudes are fuzzy and so we should not despair about being unable to give necessary and sufficient conditions for how to include or exclude platitudes. I think this answer misses the point. First, it may be true that \textit{we often recognize when someone is using different concepts}, but whether we do or not does not entail that there must only be one such truth-role \( F \); it also may be

\footnote{proposals/proposings (i.e., akin to \textit{assert something}, or \textit{say what you think}), then the concept of propositions in ordinary usage is pretty clearly not the concept of propositions in technical usage.}
untrue—we often lack full awareness of the cognitive domains and changes thereof
evoked as the basis for conceptualization. Second, the problem of defining and
individuating truth roles is—for the alethic functionalist who invokes the Ramsey-Lewis
method—a formal problem of determining what is, and what is not, a conjunct of $R$.
Being unable to determine what $R$ is constituted by, or when $R$ is the same or different
than $R^*$, entails that the functionalist about truth ultimately lacks the justification needed
to establish that there must only be one such truth-role. And since it seems that there are
different truth-roles to the extent that there are different Ramseified lists of platitudes, it
seems that alethic functionalists are unclear about whether their view is monistic or
pluralistic.

So, using a platitude-based strategy allows the functionalist to explain why
traditional alethic approaches give different specifications of the nature of truth: the
alethic properties predicated of propositions satisfy different conjunctions of platitudes
depending, in part, on the domain that contextualizes them, suggesting that traditional
alethic approaches are merely “grabbing ahold” of different groupings of platitudes—
correspondence with some weighted subset $\Gamma_1$, coherence with $\Gamma_2$, prosentential with $\Gamma_3$,
and so forth. But now, if the platitudes change, $\Gamma$ changes; if $\Gamma$ changes—if we have a
different conjunction of platitudes—then the truth-role changes; where the truth-role
changes, the functionalist is left with a multiplicity of truth-roles. Consider fences again.
Even if we move from a structural to a functional characterization of the fence category,
the idea that there is a single univocal function defining the concept fence is not
obviously correct, and may even just repeat the sins of the view it was meant to replace.
The ornamental backdrop for your grandmother’s prize tulips seems to fall afoul of the
material partition for exclusion or inclusion account. Some fences are erected merely for enhancing property value, some serve no other purpose that fulfilling a new woodworking hobby, some fences are ineffectual barricades, etc. The point is that giving a theoretical reconstruction of the commonsense conception of fences should not foreclose on the possibility of there being no single role or function common to all fences—i.e., no functional property shared by all and only the fences upon which our discriminatory abilities fixate. The concept of fencehood may just be a little too fuzzy.

4. Truth consists in a cognitively mediated correspondence relation

The central thesis of the correspondence theory of truth defended here is that truth consists in a cognitively mediated structural relation of veridical linguistic constructions to how the world is. This thesis implicitly invokes the correspondence principle, but clearly goes beyond it. When unpacked, this thesis is seen to consist in the conjunction of at least three subclaims:

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37 Horgan (2001) and Horgan & Barnard (2006) propound a similarly-titled view that treats truth as a contextually sensitive relation of either mediate or immediate correspondence. A minimalist version of their view was anticipated by Doss: [a] different view of language underlies the theory of contextual correspondence being developed here. For this theory begins with the view that truth does, indeed, involve a relationship between language and that which language is about—but that the relationship is by no means the same in every context. The first aspect of this view, that a relationship of some sort is involved, is simply a reiterations of the correspondence principle as a truism. That is, since an [empirical] expression is always about something […] then there will always be some kind of relationship between the expression and that which it is about. But, […] no further generalization is possible (1966: 280 ff).
Truth is cognitively mediated. (cm')
Truth consists in correspondence. (csp)
Correspondence is a multi-place structural relation. (9)
Correspondence is a cognitively mediated multi-place structural relation. (cm'')

This way of unpacking the thesis traces the justificatory route to treating correspondence as a cognitively mediated structural relation. It does not, however, lay bare the nature of the correspondents; nor does it specify how many argument places are involved in such a relation. This last section will attempt to makes these clarifications.

I have suggested that the proper and primary bearer of truth is a certain subclass of veridical linguistic constructions. This was indicated in premise (10) of chapter two. In chapter two, I also suggested that judgments are assemblies of cognitive models that serve as the semantic poles of speakers’ veridical linguistic constructions. These suggestions require a commitment to at least two relations and three relata. Firstly, there is an expressive (i.e., pragmatic) relationship between speakers and their constructions. Secondly, there is a constitutive (i.e., semantic) relationship between constructions and the judgments that serve as their content. We arrived at this suggestion, in part, by showing that Frege’s thesis rests on a mistake.

Moreover, judgments are related to the conceived situations of which they are about; subsequently, this requires the addition of another relation and another relatum. There is of course, a long precedent for such claims. *Statements are not ‘made true’ [...] by mind-independent states of affairs, but by states of affairs as perceived and conceptualized,* wrote Putnam (1983: 83–4; see also Joachim, 1906). I take conceived situations to be constructions from cognizers’ ontological categories, the latter being conceptually represented classes of entities that are formed developmentally,
biologically, and culturally that are responsive to how the world is. This concept is perhaps closest to the GROUND in cognitive grammar, which is a theoretical construct defined as the scene or setting of an actual usage event, including its participants and their discursive interests. At this high level of abstraction, cognitive grammarians’ use of ground is very similar to what others have called a discourse situation, considered as a tripleton {speaker, hearer, immediate circumstances}.

4.1. The fecklessness of facts

Davidson (1967) claimed that the real objection to correspondence theories of truth is that they offer nothing noteworthy or interesting for truths to correspond to. Whether or not Davidson was right, he certainly had located a grave theoretical issue. At the heyday of the correspondence theory, facts were generally treated as extant constituents of the world, to be set alongside other ontological types such as events, situations, states of affairs, and objects. This treatment—and the metaphysical status of facts more generally—were called into question with the famous debated between Austin and Strawson and with Quine’s eschewal of both propositions and facts. Strawson (1965: 37) held that facts are pseudomaterial correlates of the statements to which they correspond—i.e., theoretical artifacts created by correspondence theorists for the purposes of having something for truth-bearers to correspond to. Whether Strawson’s claim was correct in the details, it gives rise to a powerful deflationary thesis: facts are explanatorily feckless.
Unlike actions, events, and situations for example, facts possess no temporal or spatial properties, which is reflected by the inability of fact-talk, e.g., *the fact that* p, to take predicates of occasion, duration, or extension:

(10) *The fact that* St. Andrews is north of Barcelona occurred in 2004.
(11) *The fact that* Kennedy was assassinated has lasted for less than 50 years.
(12) *That* Gore won Florida in 2000 until Bush was elected is a fact.
(13) *The fact* $A^2 + B^2 = C^2$ is older and longer than $E = MC^2$

These considerations have led many to become identity theorists about truth, whom are renowned for taking facts to be nothing other than true statements—i.e., identical to, rather than correspondents of, truths.\(^{38}\) In my view, we are better off without commitments to facts as ontic entities in the world; for given an ontology populated by actions, events, objects, properties or states of affairs, situations, and other such types, it seems that considerations of parsimony may be important—for what additional explanatory work does fact-talk present us that truth-talk and world-talk does not? As extant constituents of the world, facts are metaphysically strange and ontologically

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\(^{38}\) See, e.g., Wright & Hickerson, 2005; Hornsby, 2001; Dodd, 2000. There are a variety of problems with such theories (Engel, 2001). Here is one. For any given fact $p$, there are truths $\sigma_1, \ldots, \sigma_n$ that equally and uniquely describe it but which vary, e.g., according to dimensions of construal. But then, the cardinality of truths is greater than that of facts. So, the sets of facts and truths cannot be mapped 1-to-1 and onto. Interestingly, it also seems that the facts of the matter outstrip the cardinality of truths. For there is some fact that will never be codified in thought or language, and so can never be mapped onto, or otherwise be identical with, a truth. Therefore, if the number of truths is $n$, the number of facts is at least $n + 1$. Therefore, the cardinality of facts is greater than that of truths. But this leads to an absurdity: the cardinality of facts is both greater and lesser than that of truths.
superfluous. Furthermore, claims that a truth-bearer uniquely corresponds to a fact when true become less plausible once out the realm of oversimplified affirmative descriptions (e.g., *it is raining, the biscuit is hard*); accordingly, it seems that facts as material entities suffer the same fate of hypostatized truth-conditions.

In contemporary parlance, the feckless facts thesis—and its philosophical cousin, slingshot arguments—have become a special case of the problem of individuating representation-independent truth-makers (Rodriguez-Pereyra, 2005; Dodd, 2002).

Deflationists have a very strong point, I think, in looking askance at the task of individuating representation-independent truth-makers; such tasks appear to be fundamentally problematic. Any alethic theory requiring that facts and other truth-makers be representation-independent and neatly separated out—one and only one for each truth-

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39 But cf. Olson (1987). This is not to say that the term *facts* plays all the same roles as the term *truths*. When someone wants to talk about *p* in an undisputable way, she can use *the fact that p*. Although *the fact that p* may have all the same interesting content as *the truth that p*, facts tend to be conceived of as indisputable in the same way that events and objects are indisputable. One doesn’t question, for example, the industrial revolution; but truths are much less inescapable.

40 According to Rodriguez-Pereyra (2005: 18), the truth-maker principle (*tm*) is the claim that, for a select class of synthetic truths, there must exist entities that make truths true. The generality of such a claim, however, leaves it open as to the range of entities that play the truth-maker role. Plausibly, the only entity that can (literally) makes any *p* true or makes any truth is an entity that makes a constructive effort in assembling the content of an expression, i.e., the cognizer. This is surely not what truth-maker theorists have in mind. Rather, if entities are understood in terms of external representation-independent entities, then the making relation in (*tm*) might be replaced with something more apropos, like determination or causation.

\[
(tm) \quad \text{Necessarily, } \langle p \rangle \text{ is true only if there exists some entity that determines the truth of } \langle p \rangle.
\]

For his part, Rodriguez-Pereyra suggests that (*tm*) can explicated in terms of grounding. This seems right. However, the metaphysical nature of the *entities* involved are not clarified, which (literally) neutralizes Rodriguez-Pereyra’s metaphysically realist argument.
bearer—will be saddled with a quixotic enterprise; and the requirement that facts and other truth-makers be representation-dependent—sentence-shaped, as Strawson put it—faces the equally unappealing and naïve view that the nature of the world and its constituents can be read off from the way we think and talk. Consequently, inflationary theories entangled in the metaphysical project of explicating the locution correspondence to the facts seem to suffer a weighty, perhaps even fatal, disadvantage.

4.2. **Ontological categories and conceived situations**

It may seem that a problem arises as to what these other relata are to which judgments correspond. The problem has its roots, I think, in an old argument—the so-called *diellelus*—which involves a putative regress in comparing cognitions with their objects. The argument worried both Aristotle and Kant; Frege likewise used it to grind down the correspondence theory, claiming that *it would only be possible to compare an idea with a thing if the thing were also an idea too* (1918/1956: 291). From this claim, Frege attempted to establish that definitions of truth as correspondence inevitably entail the seemingly absurd thesis that truth is scalar (1918/1956: 291–93). This argument is reconstructed as follows.

(14) Truth as correspondence is a relation between two types of things: the ideal and the real.

(15) There is perfect correspondence only if the types of corresponding relata are coincident or indistinct.

(16) It is not the case that the ideal and the real are coincident, or are indistinct.

\[\therefore\] (17) So, truth as correspondence is not a relation of perfect correspondence.

\[\therefore\] (18) So, truth as correspondence between two distinct types of corresponding relata is scalar truth.
(19) That truth is scalar is incoherent. 
\( \therefore \) (20) So, truth as correspondence between two distinct types of correspondent relata is ill-defined.

To be clear, premise (14) appears to be a stipulative definition, but is perhaps more charitably treated as a mere explication of what Frege took folks to mean by the term *correspondence*. Premise (15) is supposed to be analytically true, and Frege cites premise (16) as the initial motivation for developing a correspondence theory in the first place, noting that the distinction between the ideal and the real is *absolutely essential*. Premise (17) follows by modus tollens modulo a turn of phrase or two, and premise (18) is likewise supposed to be analytically true. While premise (19) is controversial, Frege justified it by claiming that, *for what is only half true is untrue. Truth cannot tolerate a more or less* (1918/1956: 291). Finally, premise (20) merely makes explicit the basic conclusion of the Frege’s argument: given that a definition of truth as correspondence is committed to truth being scalar, then the definition collapses.

Basically, Frege’s argument seemingly suggests that truth must be perfect correspondence between something and itself if it is to consist in correspondence at all. There are a few problems with this argument, I think. For one thing, cognitive grammarians are untouched by Frege’s point that comparison of an idea with a thing can only be done if the thing were likewise an idea; it does not apply to them since they precisely define a thing to be a region in some cognitive domain. Moreover, as I am using the term, *judgment* refers to an assembly of cognitive models that is related to conceived situations of which it is about. Neither judgments nor the conceived situations to which they correspond are *sentence-shaped*, and both are at least partially image-schematic and non-propositional. Hence, a virtue of taking judgments to correspond to conceived
situations is that Frege’s worry is easily averted: no mismatch of representational format between linguistic items and the world is incurred since judgments and conceived situations are both cognitively-structured entities formatted in similar media; hence, there is no need to posit mysterious sentence-shaped chunks of reality or other such quasi-linguistic truth-makers for the purpose of having the right kind of structure-preserving couplings between judgments and what they are about. For another thing, premise (15) is anything but analytically true—analytic or true. Prima facie, two entities \(x\) and \(y\) coincide or are indistinct if they are the same thing—i.e., if \(x\) and \(y\) are identical or co-referential. But identity and correspondence—whether degraded or not—are simply different relations (the identity theory of truth, after all, is motivated by the rejection of the correspondence theory of truth). A photograph of Baltimore might perfectly correspond to Baltimore itself, though the photograph and the city are not the same thing; a diagrammed family tree might be structurally isomorphic to the kinship relations of that family, though neither the diagram nor the family tree coincide with or are indistinct from, as Frege put it, the family or its relations of kinship. Consequently, one could agree with Frege that the very idea of scalar truth is incoherent—i.e., veridicality, not truth, is scalar, and truth is the limit or endpoint on any such scalar continuum (i.e., maximum veridicality)—without the correspondence theory being thereby impugned.

If truth in part consists in a cognitively mediated multi-place structural relation of correspondence between judgments and conceived situations, then one might worry that such a correspondence theory has failed in its realist commitments, or that conceived situations are inappropriate candidates for correspondents. Yet, the claim that conceived situations are the correspondents of judgments abides by a standard minimal commitment
that is neutral across all theoretical projects: i.e., a commitment to the idea that truth-bearers are not true solely in virtue of themselves. Still, this response might offer no solace to those correspondence theorists who are also devoutly realist. To that end, recall the determination arguments $A$ and $A'$ from chapter one, which both motivated the present account, and which explicitly involved the claim that how the world is co-determines the truth-value of any given truth-bearer. The world itself can be, or not be, the way in which a conceived situation is presented; hence, how the world is stands as a source of friction and regulation governing the construction of conceived situations. Commonly, it seems that this idea has much to recommend it.

It is also important to realize that traditional versions of the correspondence theory were developed within the context of the received view of semantics, and thereby inherited all of its trappings as well as virtues. For my part, I think the correspondence theory can be made more attractive by bringing it in line with psychological research on categorization. Categories—even ontological categories—are an imposition of cognition. The world does not come with the partitions, divisions, and taxonomies that we impose on it, though our ontological categories may exhibit greater and lesser degrees of structural and functional similarity to how the world is. To appropriate the Sellarsian phrase, the world is always in view. Hence, there is a sense in which our abilities of categorization significantly determine how the world is, which raises some interesting philosophical challenges. One is the challenge of explaining why the determination of how the world is by categorization does not entail the denial of certain forms of realism, and how (and to what extent) ontology can be a cognitive imposition without entailing the slighting of reality. The answer, I think, simply depends on showing that the analysis
of ontological categories jointly involves both realist and irrealist intuitions. More specifically, abilities of categorization are mind-dependent in the sense of being cognitive impositions; but they are mind-independent in the sense of being largely beyond our control. The formation of superordinate ontological categories—event, entity, actor, etc.—are set early in life in ways that are beyond the control of cognizers and not subject to major revision. For instance, objects, sounds, etc. are perceived as having extension, as being delimited or bounded, as having duration, numerosity, and intensity, as being subject to causation and force dynamic effects, etc., and much of this depends on perceptual processes of which cognition is beholden to. Whether a kitten visually identifies something as an object, for instance, depends—among many other perceptual processes—on, e.g., edge detection. The lack of control over our abilities of categorization extend all the way to language; children and other language-learners typically assume or expect, for instance, that words signify whole objects, rather than parts or features—expectations which are not consciously formed (Markman, 1999; Mandler, 2004). And because the formation of ontological categories are set early in life in ways that are beyond control, they exhibit a high degree of stability across cognizers.

The attempt to reconcile an account of truth as correspondence with psychological research on categorization as a cognitive imposition owes much to Robert McCauley (1986), who argued that basic-level categories are faithful representations of stable ontological patterns. McCauley avers that basic-level categories and ICMs seem to define and delimit (human-scale) ontology, maximize perceptual transparence, and are relatively stable across cultures and societies. This is particularly the case, he claimed, when it comes to observation sentences, where truth-value assessment often involves
perceptual modalities. Hence, rather than being a hindrance to or precluding accurate and transparent perception, categories and ICMs make possible and fluent the perceptual processing that figures in the construction and validation of observations, and, later, observation sentences. This suggests that acknowledging that categorization and cognitive models are fundamentally important for structuring and organizing cognition and mental experience is compatible with—or at least need not jeopardize—the view that our linguistic and psychological entities might correspond to how the world actually is.
Chapter Four: Explanation and Truth

0. Abstract

In chapter one, I defended the thesis that truth is cognitively modulated, based on the presumption that cognition is not orthogonal to the explanation of the facts involving truth. According to that thesis, if the facts about how the world is are held constant, then the facts involving cognitive processes fix the facts involving the truth-values of truth-bearers. Therein, I alluded to a difficulty in specifying the so-called facts involving truth when the overarching theoretical endeavor is taken to be explanation. The difficulty is that explanations require an initial description of the facts involving truth to be explained; yet, truth-theorists’ descriptions tend to be heavily imbued with antecedent theoretical commitments. This difficulty—i.e., the non-autonomy of facts—presents a problem for debates about truth. Specifically, inflationists and deflationists are unlikely to converge on an initial description since they approach the explanatory task with fundamentally incompatible organizing prejudices about what the data set \( \{ \varphi_1, \ldots, \varphi_n \} \) that influence their initial descriptions. And while successive redescriptions of a target phenomenon to be explained are often crucial for developing better explanations, the motivation to achieve intra-theoretic refinements is perfectly compatible with maintaining such prejudices. In this chapter, I exemplify the problem of the non-autonomy of facts with alethic minimalism, and with Paul Horwich’s version in particular, by arguing that one endorses minimalism only on the basis of antecedent commitments to insubstantivism.
about truth; yet, the facts involving truth cannot be explained using minimal explanatory resources, since those facts are both more numerous and more complex than is typically thought. Lastly, I suggest that the problem of the non-autonomy of facts involving truth can be solved by simply giving up on deflationists’ implausible commitment to explanatory conservatism. This involves showing that, surprisingly, consideration of how the non-autonomy of facts beleaguers minimalism in turn produces reasons for thinking that the non-autonomy of facts does not entail that theories of truth cannot be evaluated, and hence for avoiding a slippery slope.

1. The non-autonomy of facts involving truth

John Austin (1950: 111) once noted that truth-theorists have generally approached the explanatory task with *cap and categories in hand*. As I understand the point, Austin was suggesting that theorists’ initial descriptions of what they see as fit for explanation tend to be heavily imbued with antecedent theoretical commitments. A similar observation was made by Ronald Langacker, who noted, more generally, that the difficulty of fixing upon actual explananda is further amplified by the folly in thinking that theses and hypotheses about data can be fully segregated from data themselves—i.e., the problem of the so-called *non-autonomy of facts*.

*A fundamental requirement in any empirical science is that a theory be in substantial accordance with the known facts. Other things being equal, it is considered desirable that a theory account for more data than less. It is further required that a theory describe*
phenomena with some degree of accuracy. A major difficulty of applying these truisms in actual practice stems from the non-autonomy of ‘facts’. Facts are perceived as such only in the context of some theory, if only a very rudimentary one. They are a matter of interpretation and preliminary analysis, inevitably deriving from a set of underlying assumptions and preconceptions about the object of study and the proper way to investigate it. (Langacker, 1987: 34)

Austin and Langacker themselves said little else about this matter, but they seem to have each cottoned on to an apparently thorny problem. If facts are non-autonomous, then so are the facts involving truth. They cannot be entities enjoying an independent and autonomous existence apart from us or our theories—entities which are simply awaiting discovery and a neutral description from a neutral observer. But then, our inquiries into just what the facts involving truth are become a theory-internal affair if the descriptions of the facts to be explained are sodden with antecedent theoretical commitments—especially at the limit, where theorists turn out to be targeting altogether different explananda. Call this view—i.e., the view that facts are relative to theories explaining them—fact relativism.¹

In the following two sections, I argue that alethic minimalism in general, and Paul Horwich’s version in particular, provide reasons for taking seriously the idea that competing research programs about truth and other alethic phenomena vitiate neutrality, and that the vitiation of neutrality is especially manifest when the overarching theoretical endeavor is taken to be explanation. Nevertheless, we should be careful not to infer too much from fact relativism. After all, it is a general point about explanation that one formulates an explanans relative to an antecedently described target explanandum; yet,

¹ On fact relativism, see Lynch (1999); see also Putnam (1981: 49); Carlson (2003: 77); Alston (1996: 175–77).
we do not thereby think that our powers of explanation and arbitration are completely arrested by theorists’ interests and theory-sodden commitments. Furthermore, if the non-autonomy of facts involving truth entails that what counts as data to be explained is determined only pursuant to theory construction, then it appears that no data can be ruled out a priori as being irrelevant to the (dis)confirmation of theories of truth. And this conclusion cannot be entirely right: e.g., it is a priori and necessarily true that any conclusion of a deductively valid and sound argument pertaining to truth will count as part of the target explanandum. Hence, what matters is not so much whether the inference turns on premises that are sodden with antecedent theoretical commitments, but whether those premises truly establish the conclusion as a fact involving truth. Furthermore, many such arguments do not resort on (much) technical vocabulary, and are based on fairly neutral premises; the determination argument A from chapter one is perhaps one such example.

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2 I have adapted this claim from Fodor’s (1981) description of two views of what linguistics is about—what he called the Right View and the Wrong View. Fodor argued that there is no legitimate a priori distinction between linguistic data and psychological data because linguistics is a science which is constrained by, and not independent of, psychology. The relationship between the linguistic and psychological sciences entails, according to Fodor, that any datum bearing on psychological explananda—whether it be patterns of synchronous bursting in the left fusiform gyrus or weather patterns on Mars—has the potential to bear on the explananda of linguistics. Now, theorists are usually quick to see some data as being less or more relevant than others, but—for Fodor—this was merely a contingency of theorists’ powers of imagination (or lack thereof). Needless to say, Fodor thought that the Right View is right; according to proponents of the Wrong view, however, this is all just crazy moon-man talk. The facts to be explained certainly can be fixed a priori, because the relevant data for a linguistic theory to explain are simply, e.g., intuitive decisions about sentential sensibility. Linguists need not construct theories or do any a posteriori research in order to know that weather patterns on Mars are irrelevant to what linguistics is about.
2. Remarks on some organizing prejudices

Fact relativism and the problem of the non-autonomy of facts jointly imply that the theoretical commitments that determine what counts as an adequate illumination of the facts involving truth are more aptly described as organizing prejudices, since they are the working assumptions under which theoretical frameworks are brought to bear on the explanatory task, and two such prejudices have indeed been particularly influential:

(1) Truth is a mystery so difficult to explain that it defies easy analysis despite its apparent simplicity.
(2) Truth is simplistic to the point of being mysterious as to how it could be so apparently difficult to explain.

These two organizing prejudices capture the central division within the current menu of theories of truth (there other ways of describing these organizing prejudices, of course, but they amount to little more than derivations or paraphrases), and so have programmatically divided theorists according to whether truth is to be explained or explained away. Within the context of the grand system-building projects of their day, early theorists laboring under prejudice (1) took the explanandum to be a complex and multifaceted matrix of phenomena, and therefore attempted substantial semantic, epistemic, logical, and metaphysical inquiries of the sort requiring an extensive array of resources in order to properly understand it. The study of truth changed dramatically in the mid 20th century (≈1935–1950), however, when several disparate movements and intellectual influences came together to challenge prejudice (2). Following the lead of the so-called redundancy theorists, such as Frank Ramsey, Alfred Ayer, and Peter Strawson,
new views cropped up with pronouncements that—on the contrary—minimal explanatory resources suffice for a comprehensively adequate explanation simply because the phenomenon to be explained is hardly a robust or substantive one.

2.1. Deflationism

The organizing prejudices (1) and (2) generally track what go by the terms inflationism or deflationism—two names which pick out a snarl of competing conceptions and theses. Deflationism, for instance, acutely suffers from incoherence—i.e., what Künne (2003: 19–20) calls terminological chaos, and Wright (1992: 30) diplomatically calls a potpourri (though perhaps less fragrant).

To give a sense of this problem, consider the following (long-winded) sample. Julian Dodd wrote that the benchmark claim made by a deflationist is that there is no elusive property F: no property, shared by all and only the truths, which explains their truth (2002: 280). This negative existential claim is ambiguous, though it may come close to being most accurate. It could be interpreted to mean that deflationists are those who claim there is no property of truth, full stop; that there is a property of truth, but which does not play an explanatory role in fixing the bounds of the category of truths; or that truth is—if anything—a non-uniform or heterogeneous set of properties. The first interpretation rules out those who defend a variant of deflationism that nevertheless allows is true to be a genuine (property-denoting) predicate; the second rules out those who treat truth as something other than a property if anything at all; and the third would treat as a deflationist any theorist who does not espouse a monistic view of truth involving a positive claim about its having an explanatory role. On the latter interpretation,
alethic functionalists (e.g., Lynch, 2001) and pluralists (e.g., Wright, 1992; see also Wright & Pedersen, submitted), and even some correspondence theorists (e.g., Sher, 2004), would qualify as deflationists despite their protests to the contrary. An alternative characterization is given by Hartry Field, who declared that ‘deflationism’ [names] the view that truth is at bottom disquotational (1994: 405). This characterization is inconsistent with all three interpretations of Dodd’s claim, since it does take truth to be a uniform property of sentences; it is also inconsistent with Volker Halbach’s characterization that deflationism can be summed up as follows: truth is only a device of disquotation or a device for expressing ‘generalizations’ or ‘blind ascriptions’—it is neither a property nor a genuine predicate (2001: 171), as well as Richard Kirkham’s characterization that the deflationary thesis holds that there is no property of truth. And hence the metaphysical project in all its subdivisions is wrongheaded right from the start: since there is no property of truth, there cannot be a theory of what truth is (1992/2001: 307). Both of the latter treat deflationism as the view that there simply is no property of truth—neither uniform nor sentential. And yet, Field’s claim seemingly excludes otherwise deflationary theories that take truth to be an insubstantive property of propositions (e.g., Horwich, 1990; Soames, 1999). Halbach’s claim that truth is a mere device for disquoting or making generalizations and blind ascriptions rules out those deflationists who take truth to be coincident in normative force with warranted assertability (e.g., Wright, 1992), or who acknowledge that truth has a normative function more generally (e.g., Frege, 1918/1956; Brandom, 1994; Lynch, 2005a). Crispin Wright advanced the interesting suggestion that, it is essential to deflationism—its most basic and distinctive contention—that ‘true’ is merely a device for endorsing assertions (1992:}
While this sounds like Halbach’s claim, Wright’s characterization of deflationism as a view about the utility of truth in certain speech acts only fits Strawson’s position in 1949—a position which, incidentally, he later repudiated (Künne, 2003: 20). Peter Dillard wrote that *deflationism about truth is the claim that the concept of truth is completely explicated by the disquotation account of truth* (1996: 173)—a claim endorsed by both Anil Gupta (2005: 133) and Graham Priest (2005: 41), and one which would seem to accord with Field’s disquotationalist characterization save for the fact that it is squarely focused on explicating the concept *truth*, whereas Field is concerned with the property truth. For their part, Dillard, Gupta, and Priest had exactly half of Huw Price’s understanding in mind, who wrote, *deflationism about truth combines two claims: that truth is not a substantial property, and that the key to our use of the concept of truth lies in its disquotation character* (1998: 241); Dorothy Grover had the other half: *those theories that imply that truth is not a property with an explanatory role [are] ‘deflationary’ theories* (1992: 14), though—unlike Field—her understanding of deflationism is prosentential, not disquotational. Whether or not Price’s and Grover’s characterizations are consistent with Kirkham’s (and possibly Halbach’s) depends on whether the former are interpreted as saying that truth is not a property—and so, a fortiori, not a substantive property or a property with an explanatory role—or as agreeing with Horwich (1990) that truth is a property, just not the kind that has an explanatory role to play. Alan Weir writes that *deflationists hold that all there is to the concept of ‘true’, as it occurs in ordinary English, is its satisfaction of the Tarskian T-schema σ is true iff p in which substituends for σ name substituends for p* (2005: 218). It is unclear why Weir thinks that deflationists are primarily concerned with the concept of the word *true*, or
why those who opt for alternative T-schemas are not deflationists. For his part, Michael Williams simply settles on a characterization in terms of *truth talk: what makes deflationary views deflationary is their insistence that the importance of truth talk is exhausted by its expressive function* (1999: 547).

It seems that the terminological chaos is engendered by identifying deflationism with, or reducing it to, a particular subset of themes and theses. In doing so, each characterization inevitably introduces conceptual partitions that either exclude some paradigmatic deflationary theories or includes some paradigmatic non-deflationary ones.

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3 Scott Soames seemed to have had a similar point in mind: *The general characterization of deflationism [...] remain[s] somewhat vague and imprecise. The reason for this is that deflationism is not itself an analysis of truth nor a specific thesis about truth; rather, it is a general approach encompassing a variety of more specific proposals* (1999: 231). Recently, however, Soames (2003: 369–70) gives three reasons for thinking that the vague and imprecise characterization of deflationism as a broad and programmatic framework is necessary, sufficient, and unproblematic: (i) unlike deflationism, specific deflationary theories must provide a *full-fledged analysis of the liar and related paradoxes*; but no such analysis is forthcoming, so we should avoid specifying deflationism in such a fine-grained way; (ii) all specific deflationary theories are either clearly false, or at least dubious, in part because they explicate truth using notions that themselves presuppose it; so again, we should avoid specificity; (iii) deflationism is by itself sufficient to provide a comprehensively adequate set of explanations about truth; so there is no problem with excessive vagueness and imprecision. I concur that a characterization or definition of deflationism should avoid reducing it to or identifying it with particular deflationary theories if it is to not fall afoul of Künne’s lesson; but each of Soames’s reasons is dubious. First, not every alethic theory need explain all aspects of truth and related alethic phenomena to count as being explanatorily adequate; in particular, since an alethic theory can be explanatorily adequate without provide a full-fledged analysis of the liar and related paradoxes, it appears that Soames confuses a theory’s being comprehensive with its satisfying a battery of adequacy criteria. I cannot help but write that I find the second reason utterly bizarre; for why think that abstracting away from particular deflationary theories would ever yield a general approach that is thereby immune from the problems of circularity that they face? Abstracting away from such circularities would only just repackage them in a more rarified, abstract form. Third, particular deflationary theories generate theoretical results and explanatory principles, whereas deflationism generates controversial claims about those results and explanatory principles. That being the case, deflationism without the particular deflationary theories that support it would merely be a set of (dogmatic) claims about some theoretical placeholder.
But this is merely a special case of a more general problem, which is that the literature on theories of truth is so thoroughly spangled with discordant characterizations that it well-nigh impossible to pinpoint precisely what unifies such theories typologically at anything other than an excessively abstract or schematic level. If so, then deflationism is simply an assortment of loosely interlocking themes and theses about the metaphysical and conceptual consequences of defining certain alethic predicates, which collectively comprise a broad and programmatic framework for organizing the actual theories falling within its scope. The worry, of course, is that views like inflationism and deflationism are positions whose schematic description are so excessive that they fail to pick out any position at all.

I think we can impose some initial order by suggesting that inflationary or deflationary theories are each comprised of two types of projects. Whereas the first type pertains to the resolution of what sort of explanatory resources suffice for a comprehensively adequate explanation, the second pertains to working out the degree to which the phenomena to be explained are metaphysically robust, epistemically or logically significant, cognitively or linguistically complex or multifaceted, and so forth. From this suggestion we can derive two distinct theoretical continua: maximalism versus minimalism and substantivism versus insubstantivism, respectively. And given those continua, we should be able to begin carving up the theoretical landscape by graphing theories of truth according to their location on the $x$ and $y$ axes of a two-dimensional grid.

2.2. Minimalism
Within the quadrant defined by the pair (minimalism, insubstantivism) is a cluster of views that, arguably, constitute the single most dominant paradigm among contemporary theories of truth—namely, deflationism. Much of that dominance owes to the minimalist portion of each pair, since the particular explanatory resources employed by minimalists tend to constitute something of a lowest common denominator (statistical mode); subsequently, minimalism subsumes an extremely diverse cluster of views. The flipside, however, is that what goes by the name minimalism likewise suffers from being massively checkered theoretical framework. Immediately raised is the question as to what themes and theses unify all of its sundry versions: what are the defining commitments of the framework such that any theory operating with them is identifiable as a minimalist one? This question is rarely asked, and even more rarely answered in a satisfactory way.

One of the few explicit attempts to formulate a sufficiently general answer was Burgess’s (1997: 260) suggestion that the only commitment unifying this family of views is that the correct theory of truth will be one which ultimately is minimally informative. This answer is surely right so far as it goes—minimalism is a hash, and, as advocates of minimalism advertise, there is appropriately little to it—though it does not go very far. Specifically, Burgess proposed that minimalism about truth is the view that the totality of instances of the schema,

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4 One such view is Hartry Field’s (1994a: 284), in which Field recommended adopting what he calls methodological deflationism as a working hypothesis. As to its popularity, some theorists have even begun projecting it back into the works of historical figures; Hanna (2000: 248), for instance, attributes to Kant a form of minimal realism about truth, which is purportedly metaphysically and epistemically neutral. For a discussion of why Kant did not hold the view Hanna attributes to him, see Wright (2004).

5 Minimalists often fight amongst themselves about who gets to use the label and in what way; see, e.g., Wright (1992: 13 fn 13, 2001: 782 fn 2); Alston (1996: 2); Künne (2003: 333–39). My characterization of minimalism allows one to abstract away from any such bickering so as to understand what they have in common.
(dsq) ‘S’ is true ↔ S,

exhausts what can be informatively said about truth for the sentences of a language. Accordingly, nothing informative or substantive can be said, in general, about truth […] beyond the obtaining or the failure to obtain of the truth condition to which each sentence is linked by the instance of (dsq) that applies to it (1997: 259–60). Yet, just as problems characterizing deflationism are engendered by identifying it with, or reducing it to, a particular subset of themes and theses, so too does Burgess’s own characterization fail to capture what is distinctive about minimalism because it meronymically treats a particular version as characterizing the whole family of views, and thus unsatisfactorily excludes many versions of alethic minimalism—for instance, those that rely solely on platitude-based strategies that do not rely on T-schemas, those that depend on T-schemas which are not disquotational or are otherwise not committed to a redundancy schema for sentences (dsq), and those that punt on the very idea of sentences having (identifiable) truth-conditions (especially when those truth-conditions are the selfsame disquoted sentence).

What Burgess’s characterization gets right, I think, is that the only defining commitments common to all versions of minimalism, given the stunning number of theories which lay claim to it, are methodological ones—i.e., commitments pertaining to the deployment of minimal explanatory resources. Minimalism, then, like deflationism,
is properly characterized as a broad theoretical framework; unlike deflationism, it is definitively characterized according to the following principle.  

\[(min)\text{ Very meager explanatory resources suffice for a comprehensively adequate explanation of truth and other intimately related alethic phenomena.}\]

Generally, the meager resources alluded to in \((min)\) come in two kinds, either of which amount to what I’ll call a \textit{platitude-based strategy}. The first kind of platitude-based strategy develops an explanans around a single, formally rigorous T-schema, while the second kind develops an explanans around collections of informal platitudes.  

While T-schemas are the platitude of choice for most minimalists, the alternative strategy has a long and inveterate history. One of the most important attempts to develop an explanans using the second platitude-based strategy is due to Wright and Lynch.  

For his part, Wright finds dramatic failure in the use of formalized T-schema analyses fashioned from universal quantification over necessary and sufficient conditions, and hence no reason to give them “pride of place.” In their stead, he recommends a list of eight informal platitudes, which he thinks are no less illuminating than formalized T-schemas, and which have the added benefit of increasing the base of admissible information into the explanans—information which connects the target concept to other

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\(^6\) As far as I am aware of, David’s (1994: 4) en passant allusion to the idea is the only other time in which the proper characterization has explicitly appeared.

\(^7\) The two types are not mutually exclusive, as there is nothing that prevents the second type from including the first. Nor do I rule out that there may be other explanatory resources besides platitude-based strategies; indeed, Lynch’s (2001) use of modified Ramsey/Lewis sentences is one such example. The extent to which theorists supplement platitude-based strategies with additional explanatory resources is the extent to which they begin to gravitate toward maximalism.

relevant concepts, but which would otherwise be omitted with more formal definitional approaches that only yield a sparse number of a priori principles (1999: 226). The rationale is that such collated lists, when properly taxonimized, is (or is tantamount to) the content needed for an explanation of unintellectualized ways of understanding alethic phenomena.\footnote{Wright (1999: 227–28) calls such a taxonomy an \textit{analytical theory}. I reserve the term \textit{theory} for a systematic set of explanations that provide technical analysis and description, around which additional hypotheses can be generated and organized, etc.}

Two of the main virtues and advantages of the characterization of minimalism in \textit{(min)} are clarity and generality. It gains clarity by distinguishing the procedural protocols and explanatory resources drawn upon by an alethic theory from its metaphysical, epistemic, conceptual, or linguistic commitments. And it gains generality by breaking from identifications of minimalism with any one particular theorist’s view. For example, it is common to see minimalism about truth being identified as the view most closely associated with Horwich’s theory of truth. Yet, such identifications obscure what it is that (methodologically) unifies theories as disparate as disquotationalism (Quine, 1970; Field, 1994), prosententialism,\footnote{McDowell (1996); Hornsby (2001); possibly Heidegger (1984; see Wright & Hickerson, 2005); Dodd (2000).} modest minimalism (Künne, 2003; Engel, 2002), the modest identity theory,\footnote{Vision (2004); Sher (1998); Newman (2002); Marino (2006); Fumerton (2002); Doss (1966); Alston (1996, 2001, 2002).} discourse pluralism (Wright, 1992, 1999; Doss, 1966), alethic functionalism (Lynch, 2000, 2001), and perhaps even minimal alethic realism or various versions of the correspondence theory.\footnote{Grover et al. (1975); Grover (1992); Brandom (1994, 2002).}

2.3. \textit{Why minimalist explanations don’t explain very much}
As it were, there are extremely few instances of theories falling within the quadrants defined by the pairs (maximalism, insubstantivism) and (minimalism, substantivism). Why? A plausible explanation is that truth-theorists are generally motivated to endorse methodological commitments to minimal explanatory resources being sufficient for comprehensive adequacy because those endorsed commitments are beholden to e.g., insubstantivism about truth. In other words, the views comprising inflationary and deflationary theories, respectively, are logically connected in the sense that they stand in some sort of priority or entailment relation (e.g., minimalism is endorsed only if insubstantivism is, or is otherwise given theoretical priority). After all, given insubstantivism’s economical or simplistic description of what the data set \{\varphi_1, \ldots, \varphi_n\} consists in, it is only natural to then assume that minimal explanatory resources will do the job.

This explanation helps us understand that minimalist theories are the kind of views that get adopted on the basis of one’s antecedent insubstantivist endorsements, not the other way around. But then, from the proper characterization of alethic minimalism it follows that minimalist explanations literally do not explain very much (whereas maximalist explanations explain a plenitude). Such results are to be trivially expected, of course, so long as the phenomena to be explained are already known to be insubstantive. Being an alethic minimalist, then, means facing the danger of putting the cart before the horse. For the deployment of a certain array of explanatory resources cannot itself be a reason for thinking that truth is or is not a robust or substantive phenomenon, on pain of circularity. Proponents of minimalism will therefore need further reasons as to why minimalist explanations could be comprehensively adequate, given that adjudicating
between maximalism and minimalism crucially depends on having already resolved the tension between the two prejudices (1) and (2) underwriting the ways in which theorists approach the explanatory task. In turn, resolving such a tension requires that disputants be able to agree on how to delimit and describe the very nature of the phenomenon to be explained.

As Austin and Langacker alluded to, the very possibility of debate between maximalists and minimalists turns on theorists having already converged on what they take the data set \( \{ \varphi_1, \ldots, \varphi_n \} \) to be. A more clearly articulated definition makes salient how the proper characterization of minimalism has this consequence.\(^{13}\) A theory of truth \( T \) is minimalist iff

\[
(3) \quad T \text{ (i) assumes insubstantivism as a set of working hypotheses, (ii) produces an austere description of the target phenomenon to be explained, and (iii) develops an uninformative}
\]

\(^{13}\) Contrarily, \( T \) is maximalist only if it (i) assumes substantivism (ii) eventually produces a rich and intricate description of the phenomena to be explained, and (iii) develops an informative explanans on the basis of a significant array of explanatory resources commensurate to the phenomena within its scope. With regard to (ii) a rich and intricate description is a description that treats data naturally, which does justice to its complexity, and which does not excessively abstract away from it; such a description can be produced piecemeal, since it would be unreasonable to expect it to be produced whole cloth given the complexity and multi-dimensionality of the phenomenon. An austere description is one that treats the relevant data in a simplistic or highly idealized way, and which sharply insulates it from other tangentially related data; since the phenomena being represented are spare and prosaic—as assumed in (i)—it can be produced rapidly. With regard to (iii) the phrase significant array of explanatory resources pertains to that which goes beyond the two types on offer by minimalists: T-schemas and platitude-based strategies. The result is a theory of truth that aims at critical, comprehensive, and technically precise analyses; whose systemicity has potentially far-reaching consequences and applications, such as the development of new analytic techniques for thinking about a variety of well-populated data matrices; and whose fecundity involves the unification of diverse phenomena where possible. Alethic minimalism, however, has—and does not aim for—any such grand results.
explanans on the basis of minimal explanatory resources commensurate to the phenomenon within its scope.

There are other ways in which to finesse or improve on (3), and the conditions (i)–(iii) require further clarification. Either way, it should be clear why being a minimalist is legitimated by the antecedent theoretical commitments to what the data set to be explained consists in. (3) exposes an inherent strain in claiming that formal T-schemas or informal collections of platitudes suffice for a comprehensively adequate theory that is substantive or non-deflationary theory. But then, in taking the main theoretical endeavor to be explanation, minimalists and their opponents find themselves saddled with the position of literally being unable to say what their theories are about in a non-question-begging way. This result, I take it, is merely a specific point about explanation more generally: one can formulate an explanation of some target phenomenon φ only on the basis of already having some views about what φ is. But the lack of a well-defined “common ground” for the study of truth to take place on has been vastly underappreciated."

3. Horwich’s version of alethic minimalism

3.1. The minimalist theory and conception

Consistent with the above conjecture, Horwich’s version of alethic minimalism departs from the insubstantivist metaphysical claim that, although truth is a real property

14 Kirkham’s (2001) attempt to differentiate between different projects is perhaps the sole exception.
denoted by the predicate *is true*, it is not a complex or substantive property playing an interesting explanatory role, and so does not admit of interesting philosophical analysis. Given this insubstantivist view about truth, and the further claim that the equivalence schema,

\[(eqv) \quad \text{The proposition that } p \text{ is true iff } p\]

fixes everything that we do with the predicate *is true*, Horwich supposed that theories of truth can get by solely with minimal explanatory resources. And once we understand the pattern realized by the T-biconditional instances of \((eqv)\), we thereby understand not only everything we could care to know about truth (which is to say, not much), but also why attempts to formulate inflationary theories reflecting its perceived profundity are ill-conceived from the outset. All of this is reflected, of course, in the proper characterization of alethic minimalism as defined by (3), of which Horwich’s version is merely a particular instance.

For any given T-biconditional instance of \((eqv)\), a single proposition \(p\) is twice manifest, each of which is expressed by the same sentence in some possible language; the first manifestation is converted into a materially equivalent noun phrase, *the proposition that* \(p\), and appended with the monadic predicate *is true*. Horwich called the infinite list of T-biconditional substitution instances of \((eqv)\) the *minimal theory*, and called the paratheoretical commentary about the explanatory adequacy of \((mt)\) the *minimalist*
conception (1990: 7). As such, (eqv), which provides the minimal theory with its sole requisite explanatory resources, is distinct from both the theory itself,

\[(mt) \quad \text{The proposition that Hawaii is in the United States is true iff Hawaii is in the United States, the proposition that Moroni is in Heaven is true iff Moroni is in Heaven, the proposition that } N_0 \text{ is in Plato’s Heaven is true iff } N_0 \text{ is in Plato’s Heaven, the proposition that ValuJet flight 592 is in the Everglades is true iff ValuJet flight 592 is in the Everglades, the proposition that clouds are in the sky is true iff clouds are in the sky, the proposition that there is a fallacy in Pascal’s wager is true iff there is a fallacy in Pascal’s wager, …}\]

and each T-biconditional which is an instance of it. The platitude in (eqv) was held to be explanatorily fundamental, in at least two senses: first, it was held to be an underived general principle which provides the conceptual source or basis for each instance of (mt), and second, it was held to fully specify the propositional structure of all of the theory’s principles without remainder. Hence, citing (eqv) therefore amounts to all of the resources sufficient for generating minimalist explanations: the [minimalist] theory of

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15 Many scholars (e.g., Kirkham, 2001: 340; Thalos, 2005: 77) mistakenly describe (mt) as an infinite conjunction; but (mt) involves no logical connectives conjoining its instances, and has no truth-functional structure. The mistake perhaps originates from the similarity of Horwich’s minimal conception to Tarski’s discussion of convention T: it should be emphasized that neither (ct) itself (which is not a sentence, but only a schema of a sentence) nor any particular instance of the form of (ct) can be regarded as a definition of truth. We can only say that every equivalence of (ct) […] may be considered a partial definition of truth, which explains wherein the truth of this one individual sentence consists. The general definition has to be, in a certain sense, a logical conjunction of all these partial definitions’ (Tarski, 1944: 335–36). Aside, Tarski’s semantic theory, based on (ct), is sometimes supposed to be a comprehensively adequate explanation. Yet, Tarski was concerned with providing a definition; in particular, he did not suppose that every partial definition of truth explains what that truth consists in, or why definitions more generally are ever explanatory in any strict sense.
truth involves nothing more than the equivalence schema (Horwich, 1990: 12; 2001: 149–51).  

3.1.1. The adequacy thesis. The pairing of Horwich’s brand of insubstantivism and his platitude-based strategy might be thought of as a kind of cynicism about the study of truth, but perhaps less so than other deflationary theories that do not take truth to be a property (hence, call it deflationism lite). What makes Horwich’s view interesting, however, is its ambitious explanatory stance. Notable is Horwich’s claim that invoking

16 To avoid difficult translational issues that arise from both propositions expressed in languages $L_1, \ldots, L_n$ that one may not understand, as well as currently inarticulable propositions, plus the desire to not restrict alethic minimalism to English only, Horwich invoked a notational modification, $(eqv)$: $\langle\langle p \rangle\rangle$ is true iff $p$. This modification uses angled brackets ‘$\langle$’ and ‘$\rangle$’ to abbreviate the proposition that $p$ when surrounding a proposition $p$, and is thus read the proposition that the proposition that $p$ is true iff $p$. Accordingly, the actual principles of $(mt)$ are the propositions identical to what is expressed by their correspondence instances of $(eqv)$. Künne balks at the intelligibility of $(eqv)$, asking, does this even make sense? (2003: 322). And indeed, it is not clear that it does (if only because it depends on accepting Frege’s thesis). Unlike $(eqv)$, which is a schema of a sentence in English, instances of $(eqv)$ denote singular terms. And each instance of $(eqv)$ is held to be a so-called propositional structure with two constituents: (i) the propositions twice manifest (e.g., $\langle\text{Hawaii is in the United States} \rangle$, $\langle\text{Moroni is in Heaven} \rangle$, and $\langle\text{ValuJet flight 592 is in the Everglades} \rangle$), and (ii) the so-called remainder of the proposition, which is treated as a function from propositions to propositions $(f: \langle p \rangle \rightarrow \langle\langle p \rangle\rangle$ is true iff $p$)). And yet, it seems that Horwich took the propositional structure of every principle of $(mt)$ to be a two-tuple of the form $\langle\langle p \rangle, \langle\langle p \rangle\rangle$ is true iff $p$}$, in which case the propositions in (i) are not twice manifest. Hence, it is unclear how the second instance of ‘$p$’ should be treated. With regard to (ii), it is a function whose input is an argument—namely, $(\langle p \rangle)$—and whose output is the proposition expressed the sentence schema ‘$(\langle p \rangle)$ is true iff $p$’—i.e., what $(eqv)$ expresses. I have already suggested why I concur with Künne that this is mistaken. In any case, the function $f$ uses $(eqv)$ to go from, e.g., propositions like $\langle\text{ValuJet flight 592 is in the Everglades} \rangle$ to principles of $(mt)$: i.e., $\langle\langle\text{ValuJet flight 592 is in the Everglades} \rangle\rangle$ is true iff $\langle\text{ValuJet flight 592 is in the Everglades} \rangle$. For Horwich, the alternative to all of this technical modification was to invoke a “strengthened” natural language $L'$, which amounts to one’s own natural language supplemented with possible counterfactual extensions of it, in order to extrapolate the propositional structure had by all and only such instances expressive in $L'$ (1990: fn. 5; see also Field, 1994).
(mt) exhaustively completes the explanatory task: *it is possible to explain all the facts involving truth on the basis of the minimal theory* (1990: 7; see also Horwich, 1990: 1–15, 51, 1996: 879–80).17 I will follow Gupta (1993b) and David (2002) in calling this claim the *adequacy thesis*.

(adq) The minimal theory is sufficient for explaining all of the facts involving truth.

Horwich (1990, 1996, 2001, 2004) has masterfully anticipated, taxonomized, and deflected scores of distinct objections and criticisms to his version of minimalism, though critics continue to generate many more besides. Significant misgivings remain over every aspect of Horwich’s view; for my part, I am most interested in the way the endorsement of (adq) exemplifies just why it is that the problem alluded to by Austin and Langacker is gripping. For (adq) is utterly unevaluable without some description of what the facts involving truth are such that the platitude-based strategy underlying (mt) is sufficient for explaining them. So, what are the facts that Horwich takes to be minimally explained?

Horwich averred that the invocation of (eqv) explains the fact that the primary or proper bearers of truth are propositions—the existence of which follows from there being something that is said or expressed by utterances of sentence tokens.18 He also

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17 Notoriously, Horwich (1990: 41–2) excludes the criterion of providing a solution to self-referential paradoxes and semantic antimonies—the Liar paradoxes in particular—because he thinks that all alethic theories face such problems together, and that the inability to solve such problems is not a mark against them (cf. Soames, 1999: 246–47).

18 Note that Horwich has long endorsed the view that sentences express thoughts or propositions, despite the falsity of Frege’s thesis. I confess to having no real idea what a proposition is, and to thinking that *PROPOSITION* has low construct validity. Needless to say, I find it dubious that their existence is a fact, and I am inclined to think that they are about as explanatorily feckless as facts themselves. Everything that can be said with them
maintained that truth-predicates exist only for the sake of certain logical and conversational needs—namely, facilitating certain generalizations and dealing with anaphoric discourse such as,

(4a) Virtually everything Camus said was true,
(b) Brentano’s thesis is true,

as well as providing an alternative to substitutional quantification—a “fact” which the unquantified (eqv) is perfectly suited to explain. Consequently, he concluded that its sole raison d’être is to enable speakers to infer a proposition that cannot readily be identified, and to speak about and generalize over unarticulated propositions (1990: 2–4, 19).

Horwich (1990: 22) gave three examples. In the first, he suggested that, e.g., the fact that Mr. Bush should resign can be explained from what Saddam said was true and what Saddam said was that Mr. Bush should resign.

(a) (∃x)(Saddam said x & x is true).
(b) (∃x)(Saddam said x & x = (Mr. Bush should resign)).
\therefore (c) (Mr. Bush should resign) is true.
(d) (Mr. Bush should resign) is true iff Mr. Bush should resign.
\therefore (e) Mr. Bush should resign.

Putting aside the seeming confusion of facts and truths (i.e., given my notation, the fact that Mr. Bush should resign is not a worldly constituent, but the expression the fact that Mr. Bush should resign), such examples ignore much of what is interesting about truth, and, in that sense, do not exemplify the facts involving truth per se. At the very least the fact that Mr. Bush should resign—while true—hardly seems to be a fact about truth; or, if it is, it is not what most theorists have in mind. In any case, Horwich’s deflationary version of alethic minimalism is a nice exemplification of the thorny problem mentioned at the end of §2, which was that the appearance of debate between maximalists and minimalists is merely that—appearance—since assessing either view is parasitic on adjudicating the tension between substantivism and insubstantivism. For only on the basis of question-begging insubstantivist description of the data set can minimalists like Horwich thereby maintain that (mi) has sufficient explanatory resources for formulating a comprehensively adequate explanation. This problem is the outcome of following these two opposing prejudices to their rational endpoints.
126–27). Horwich also held that the concept \textsc{Truth} is a matter of having a disposition to assert or assent to, without evidence, any given instance of \textit{(eqv)}. Finally, in endorsing a traditional use theory of meaning, he suggests that the lexical meaning of \textit{true} is given by the fact that our linguistic behavior issues from this disposition.

3.1.2. \textit{Supplementary theories.} Clearly, given that these are the facts involving truth, Horwich explicitly took the minimal theory to explain them all—hence \textit{(adg)}.\textsuperscript{20} Of course, whether \textit{(adg)} is true turns on a clarification: i.e., the facts involving truth are facts that a theory of truth should \textit{in conjunction with} theories that explain its relations to other phenomena. Horwich wrote:

\begin{quote}
\textit{A theory of any phenomenon $\varphi$ is a collection of principles (i.e., axioms and/or rules); and the theory is good to the extent that it captures all the facts about that phenomenon in the simplest possible way. [...] Of course we don’t expect our theory of $\varphi$ to do the explanatory work all by itself. It does not follow solely from the theory of electrons that electrons are smaller than elephants; we need a theory of elephants too. Our goal, then, is to find a simple theory of $\varphi$ which, together with our theories of other matters, will engender all the facts.} (1990: 25)
\end{quote}

The suggestion is that it would be unreasonable to expect a theory of truth itself to explain the facts involving truth, which involve facts about things other than truth per se. That is, there are numerous facts involving truth, which—pace Horwich—need not be explained by a theory of truth itself; specifically, these facts are data subsets which

\textsuperscript{20} Of course, this immediately raises questions about whether Horwich’s endorsement of the puritanical thesis \textit{(pur)} in §5.1 below was disingenuous, since the facts involving truth involve data other than the property of truth, as well as whether \textit{(pur)} itself requires serious and non-trivial ad hoc revision.
pertain to the relations between truth per se and other intimately related phenomena. For instance, \( (mt) \) does not serve as a truth-conditional theory of meaning, and so does not elucidate any facts involving truth and its relation to meaning; nor does it explain why valid inferences are truth-preserving; nor does the invocation of \( (eqv) \) explain the nature of perjury in legal discourse; etc. Horwich’s considered view seemed to be that these other phenomena and their relations to truth will have explanations too, though they will simply be issued by other theories. Hence, the facts about meaning that are related to truth can be explained by supplementing \( (mt) \) with a semantic theory; and explaining why valid inferences are truth-preserving only requires that minimalism be supplemented with a theory of validity and a theory of inference; and in conjunction with theories of truthfulness, deceit, sincerity, or oath-taking, \( (mt) \) can then explain perjury; and so on. The addition of supplementary theories can be applied across the board in order to extract truth from its relations with other phenomena. So, given a commitment to the puritanical thesis, minimalists like Horwich have felt untroubled by the wide array of data that are inexplicable on the basis of the platitude-based strategy underlying \( (mt) \).

3.1.3. The argument for \( (adq) \). In conjunction with supplementary theories, then, \( (mt) \) purportedly has sufficient explanatory resources needed for explaining away all that merits explanation about truth and other related phenomena (Horwich, 1990: 26, 1996: 879–80). The argument for \( (adq) \) can therefore be reconstructed as follows.

(5) Truth’s sole function or role is to facilitate certain generalizations and blind ascriptions over inaccessible or unidentifiable propositions; the meaning of true is its use in \( L \) per \( (eqv) \); only propositions are truth-bearers; the concept
TRUTH just is a disposition or inclination to assert, without evidence, any given instance of (eqv), …

(6) \((mt)\) uses only the resources provided by \((eqv)\) to generate these explanations, and thus to explain all the facts involving truth per se.

(7) The conjunction of \((mt)\) and the relevant supplementary theories is explanatorily adequate for explaining all the facts involving truth per se and its relations to other phenomena.

\therefore (8) Therefore, the adequacy thesis is correct.

It is difficult to overestimate the impact that Horwich’s version of alethic minimalism, which has proven to be one of the most important philosophical theories of truth to date, has had on the credibility of rival theories. One reason is that it combines the very radical adequacy thesis with a core platitude-based strategy, thereby pithily epitomizing most minimalists’ struggles to make good on a familiar Rortian theme—namely, that truth just isn’t the kind of phenomenon around which we should expect to formulate philosophically interesting theories. Obviously, \((adg)\) is not itself a reason for thinking that truth is not the sort of substantive property that inflationists take it to be; but, if correct, it should not be difficult to justify—and that would ruinously indicate that, indeed, substantivists really have over-inflated the study of truth when something much more minimal would suffice.

3.2. On the facts involving truth, again

With respect to his argument for the correctness of \((adg)\), it should be clear that, whether the conclusion can be established depends on how the argument’s first premise \((5)\) is filled out. Horwich has mentioned some of those “facts” in premise \((5)\). But why should anyone take these to be the facts involving truth? What subset of facts do the ellipses at the end of \((5)\) pick out? What is the cardinality of the set of facts?
Here, Horwich’s account of the facts explained nicely exemplifies the problem with the non-autonomy of facts. So however these questions are answered, the rationale underlying the minimalist conception should now come into relief: Horwich endorses \((adq)\) because he takes \((mt)\) to explain the entire set of facts involving truth per se in virtue of maintaining that that set is minimally populated and rendered on the basis of insubstantivist assumptions, just as the definition in (3) makes explicit. In particular, \(\{q_1, \ldots, q_n\}\) contains no facts involving alethic phenomena other than the facts involving truth (modulo a fact or two about the meaning and grammatical role of \(true\)). Since the only thing that could justify such assumptions is the ideological commitment to insubstantivism, there is no reason to think that Horwich could have a good answer that is not question-begging; and this is itself a reason for thinking that he doesn’t.

Matters get murkier. For minimalist would need an implausibly high degree of omniscience with regard to the data set in order to establish the first premise in (i). Every fact comprising the explanandum must be, in principle, knowable: minimalists can hardly explain all of the facts involving truth and other alethic phenomena if there exists some subset of \(\{q_1, \ldots, q_n\}\) to which they have no epistemic access. Yet, it stands to reason that there are facts involving truth and other alethic phenomena that may simply be unknowable (e.g., those about the concept \(truth\) in obsolescent languages or among pre-linguistic hominids, those invoking unprovable theorems). Moreover, not only must every \(q_i\) be knowable, it must be actually known; for unless minimalists actually know what \(\{q_1, \ldots, q_n\}\) consists in, there would be no way to gauge whether they can actually explain all the facts involving truth using only the explanatory resources provided to \((mt)\) by \((eqv)\). The upshot is that the correctness of \(adq\) cannot be evaluated unless the
phenomenon to be explained is both determinate and epistemically closed—i.e., the
explanandum must be accessible, stable, fixed, and known. Yet, it is by no means
obvious that the data set \{q_1, \ldots, q_n\} has these properties, since revisions to theories
result in both the production of new facts hitherto unknown, and the demonstration that
some old “facts” no longer enjoy their factual status.

As I have argued, the reasons for supposing that the data set to be explained is
minimally populated are not good—especially if one is not committed to platitude-based
strategies being sufficient for generating a set of comprehensively adequate explanations.
For opponents of minimalism, a goal should be to identify other, neglected aspects of the
explanandum (besides the default ones most often highlighted) in order to show that
minimalists are unfair to the facts. Fortunately, \(adq\) has a commendably high degree of
falsifiability: only a single counterexample is needed to disconfirm it. The next two
subsections present a few candidates.

3.2.1. Alethic terms as adverbial intensifiers. Alethic terms are frequently used
as adverbial intensifiers across numerous natural languages—something which \(mt\)
seems unlikely to be able to explain. Intensifiers are usually grammaticalized as adverbs
or adverbial clauses for confining the extension of scalar constructions (Israel, 2002).
Accordingly, alethic terms like \textit{truly}, \textit{verily}, or \textit{actually} can be used to mark a scalar
degree of predication, but can also be used to mark a subjective emphasis on clausal
elements or the truth-value of entire clauses. Depending on what speakers intend to
intensify, such terms occupy various syntactic positions, as in:
The film *The fast runner* is truly remarkable.

(9b) *The fast runner* is a truly remarkable film.

(9c) *The fast runner* is truly a remarkable film.

(9d) *The fast runner* truly is a remarkable film.

(9e) Truly, *The fast runner* is a remarkable film.

As the adverb *truly* moves from right to left, the speaker’s scope of assessment is less about the attribute designated by *remarkable* and more about the entire clausal structure. Embedded in the predicate in (9a)–(9c), the use of *truly* expresses the speaker’s assessment of the intensity or degree of remarkableness attributed to the film. In (9d), it serves to subjectively emphasize or modify the entire predication, and finally, operates on the entire finite clause *the fast runner is a good film* in (9e). Occupying this syntactic place, *truly* can be used in an adverbial operator schema:

\[(aop) \quad \text{truly}, \quad \text{p iff} \quad \text{p}.\]

Although used less frequently than the prosentential operator *it is true*, the operator in *(aop)* is no less legitimate as a T-schema for invoking in platitude-based strategies. It is important to note that an analysis of alethic terms’ role in adverbial intensification cannot be derived from the role of the monadic predicate *is true* in *(eqv)*, especially insofar as their occurrence as intensifiers is pragmatically conditioned by the speaker’s intention to epistemically qualify certain constructions in order to control how their utterances to be interpreted (Paradis, 2003).

Maximalists can surely concede to Horwich that truth is useful for facilitating generalizations over compendious assertions; what they cannot concede is the minimalist’s attempt to mete out an insignificant role to truth in our cognitive and social
transactions—i.e., to concede that truth is, as is oft-said, merely an “empty compliment” paid to a truth-bearer. At first blush, the facts about alethic terms in their role as adverbial intensifiers would seem to constitute another, neglected part of the phenomenon-to-be-explained—and thus a problem for minimalism. If so, then truth’s having the facilitatory function or role attributed to it lends no credence to the claim that such a function is truth’s sole raison d’être.

An interesting feature of this candidate fact is that it forces minimalists to demonstrate—in order to save (adq)—that the facts about adverbial intensification either (i) are not legitimate facts to be explained, or (ii) if they are, that they are alethic phenomenon to be explained by supplementary theories in domains like pragmatics. Both moves exhaust the options for minimalists, I think, and both are ad hoc and unhappy ones. The first option (i) seems to have everything going against it, and nothing for it. That such linguistic data constitute a subset of facts problematic to explain solely on the basis of (eqv) should be a reason for thinking that such facts are not so much illegitimate as they are just problematic, and the extent to which minimalists avoid rather than explain them is the extent to which (adq) is false. The second option (ii) requires minimalists to actually produce the requisite supplementary theory for conjunction with (mt) so as to deduce the all facts about alethic terms used as adverbial intensifiers. But neither (mt) nor the minimalist conception contains any resources for thinking that there is any such theory adequate to the task—pragmatic or otherwise, or for making claims about why alethic terms as adverbial intensifiers are not facts involving truth. The extent that minimalists simply offload the burden of explaining these roles and functions onto supplementary theories is the extent to which (adq) becomes unfalsifiable. For (mt) can
surely be used to explain all the facts involving truth per se if the only facts to be explained are the ones which \( (mt) \) can easily explain.

Horwich’s commitment to the puritanical thesis kicks in when faced with counterexamples threatening to falsify \( (adj) \): all of the problematic facts involving truth must be transformed into phenomena to be peddled around from supplementary theory to supplementary theory. But this has the untoward effect of simply insulating \( (mt) \) from having to explain any problematic facts, and from having to consider alethic phenomena in all of their natural complexity. Surely it is bad for a theory to be false or unfalsifiable.

3.2.2. **Alethic terms as a polysemous lexical category.** Suppose that the facts about alethic terms as adverbial intensifiers turn out to be, for whatever reason, a weak counterexample. There is another inexplicable data subset pertaining to the semantics of alethic terms—one which is purportedly the central focus of the minimalist conception and which should be most easily explainable on the basis of \( (eqv) \) if anything is.

Horwich maintains that the meaning of \textit{true} is its use in English and is fully determined or fixed by \( (eqv) \); likewise, translations of \( (eqv) \) into, e.g., Dutch, Portuguese, Tundra Yukagir, or any other language \( L \) are the source or basis of all uses—and thus meanings, a fortiori—of \textit{waar}, \textit{verdadeiro}, \textit{öwie-l’elek}, or any other such synonym in \( L \) (1990: 38, 2001: 149).\footnote{The problem with Horwich’s use theory of meaning, as Quine might have said, is that—like Molière’s satirical suggestion that opium induces sleep, \textit{quia est in eo virtus dormativa}—it gives the illusion of having explained something.} This claim is arguably the main pillar of Horwich’s minimalist conception. In a recent paper, Horwich seems to relinquish the ideological commitment to the puritanical thesis: \textit{[minimalism] is not a ‘theory of truth’ in the sense of a set of...}
fundamental theoretical postulates on the basis of which all other facts about truth can be explained. Its immediate concern is with the word ‘true’ rather than with truth itself (2001: 150–51; see also Goldman, 1999: 41).

It is worth noting that this claim effectively redacts (*adq*)—if not in letter then at least in spirit. But it is more important to be clear about the nature of the explanatory task Horwich takes himself to be satisfying. Like Frege, Austin, and most contemporary theorists, Horwich is explanatorily conservative: he interprets the task narrowly as a requirement to pronounce or decree a semantic value of the default monadic truth predicate *is true*. Doing so effectively reduces the task from the complex one of specifying the semantics of alethic terms and thus explaining (away) truth-talk to a much simpler one of merely describing one sense of *true*. But now, it is also worth noting that one datum is that alethic terms—particularly, the term *true*—form a polysemous lexical category, as the previous chapter shows. In principle, there is no real problem with confining oneself to an analysis of only the default sense of *true* and neglecting all other related senses so long as one recognizes it as a simplifying idealization of what the facts are. The trade-off, of course, is that a theory whose only achievement is specifying the semantic value of *true* in English will hardly be an interesting one, much less comprehensive, unless all other alethic terms were shown to be derivative, or unless theorists are willing to make several artifactual and oversimplifying idealizations.

That some philosophers may have a tin ear for the analysis of alternative senses of alethic terms, or of *true* in particular, is not a reason to ignore the facts about their semantics, their usage, or about truth-predication being polysemous more generally.22

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22 After Anil Gupta (1993b; see also David, 2002: 163) demonstrated that (*mt*)
That *is true* is the default locution neither delimits the explanandum for which theories of truth are constructed, nor rules out the import of other related predicates and cognates for investigating the concept *truth*. Numerous locutions are relevant to linguistic semantics of *true, truth*, and their cognates, but about which nothing can be said using only the resources of analyses with such a narrow attention span (Sher & Wright, 2007). To those with a much better grasp of lexical semantics, theoretical moves from simplifying idealization to arbitrary and stipulative neglect will end up looking sadly dogmatic. Since the default sense hardly exhausts an analysis of the semantics of alethic terms, a theory aiming to specify the semantics of those terms should take the plural of ‘terms’ seriously; indeed, a comprehensively adequate alethic theory should be able to describe a range of (historical) predicates across natural languages.

But now it should be clear that the proponent of Horwich’s minimalist conception faces a difficult problem. Neither *(eqv)* nor any other T-schema constitutes an explanatory resource sufficient to specify the semantics of alethic terms and thus explain the facts involved in their forming a polysemous lexical category. In particular, the semantic value of *true* is not fully determined or fixed by biconditional T-schemas like *(eqv)*. And even if it were, or even if all other senses were derivative of the default use, Horwich’s minimalist would be unable to demonstrate this without much more substantial explanatory resources. After all, there is nothing about a T-schema that could not explain the fact that certain objects (e.g., the moon) are not truth-bearers, Horwich revised his theory in the 2nd edition (1998) to include one exception to the rule that the principles of *(mt)* only include the infinite number of substitution instances of *(eqv’)*—namely, that propositions and only propositions are true. If *true* is polysemous in this way, however, such that it can be perfectly well predicated of bicycle tires, then it seems that Horwich has not considered Gupta’s worry seriously enough, since the alteration from *(eqv)* to *(eqv’)* fails to assuage the worry.
indicates how many senses true has or what the relations between them are if there are more than one. Nor is there anything about (eqv) or any other T-schema that indicates which stage of the epistemic control cycle the second, lone instance of p occurs in (i.e., whether it is merely formulated or embraced). So, if I am right, then T-schemas are—by themselves—inadequate explanatory resources for even just this one small part of the explanadum; and if I am right, then Horwich’s minimalist view in particular fails to fully satisfy even the most central task for which it is designed.

Ironically, minimalists cannot simply peddle this problem off onto some supplementary theory: these data are straightforwardly central—i.e., they are about the alethic terms and predicates, which, by Horwich’s lights, was the one thing that (int) should be able to explain. The non-default uses of true cannot be attributed to mere wordplay or misuse, and neither can they be chalked up to ambiguity (they are not mere homophones, since many share related senses in terms of straightening, aligning, correcting, and so forth). These different senses are somehow related, but those related differences are precisely the point. Since the lexical category of alethic terms turns out to be more complex than can be captured merely in a biconditional T-schema analysis of the locutionary significance of true in only some of its senses, (adg) is certainly false.

3.2.3. Truth and seriousness. There is a further reason as to why Horwich is wrong to think that T-schemas of any sort are an adequate explanatory resource for providing a semantic analysis and description of true—one that ironically owes to a comment by Frege. Frege noted that speakers need not predicate truth of truth-bearers as a necessary condition on the expression of truth, as is obvious upon observing the
equivalence of left and right sides of the various biconditional T-schemas. He wrote: so it is possible to express the thought without laying it down as true. We declare the recognition of truth in the form of an indicative sentence. We do not have to use the word ‘true’ for this. And even when we do use it the real assertive force lies, not in it, but in the form of the indicative sentence and where this loses its assertive force the word ‘true’ cannot put it back again (1918/1956: 294; see also Williams, 2002; Griemann 2000). As Frege avers, the utility of truth does not lie in the word true, but in the form of the truth-bearer and requisite seriousness with which it is constructed and used. It is unclear whether Frege intended this as the suggestion that form and seriousness are each necessary and jointly sufficient conditions for the expression of truth, but we need not undergo that level of exegesis in order to extrapolate the more basic point that weighs in against minimalists’ deployment of T-schemas. The point is not that truth-talk is eliminable because T-schemas show us how to dispense with it; rather, the point is that truth plays a role in the construction of veridical linguistic constructions even when it is not explicit. As Frege would have put it, truth is implicit in every judgment and assertion. And since it truth plays a role in such things regardless of whether any locutions are used to designate it, part of the explanatory task must involve more than just specifying the meaning of true via a T-schema, contra Horwich. The result, however, is not just that Horwich badly misestimates what is involved in generating a theory of truth, but that exclusively locutionary treatments of the explanatory task more generally are inadequate because the role or function of truth does not coincide with the use of any given lexical item (Sher & Wright, 2007).
Accordingly, Frege’s comment helps us to understand why the explanation of truth’s function or role must involve the facts involving cognition; for as Frege noted, there is a component part of the explanandum which pertains to the stance or orientation that a cognizer takes up in regard to an expression. That stance is, again, normative. But its being normative depends on the psychological states of cognizers; according to Frege, the normative stance is one of seriousness; according to Williams (2002), it is one of sincerity. Both seriousness and sincerity are psychological states and dispositions. This is not at all to say that a theory of truth reduces to a psychological theory of seriousness—far from it—though it is to say that theorists should take seriously the facts involving these states and dispositions in giving an initial description of the target explanandum.

3.3. On the need for supplementary theories

I hope to have shown that the argument for \((adq)\) in (5)–(8), even if valid, is far from sound: there are several non-empty subsets of facts involving truth that are unexplainable solely by deploying \((eqv)\). The existence of such subsets is enough to fell the argument; even still, there are other problems with it and with Horwich’s version more generally that are worth highlighting.

The premise in (6) is stipulative and definitional, and not particularly interesting. The premise in (7), however, is equally as troubling as premise (5). Peddling problematic facts and counterexamples around from supplementary theory to supplementary theory helps to restrict a priori what data the explanandum can consist in; but the legitimacy of doing is certainly dubious. Moreover, the very appeal to such theories to do the explanatory legwork is itself problematic. For instance, since \(\{q_1, \ldots, q_n\}\) includes facts
involving truth’s relations with other alethic phenomena that are unexplainable solely on the basis of \( (eqv) \), there must always be adequate supplementary theories for explaining the phenomena with which truth is related. For Horwich, some such datum \( q_i \) is explainable on the basis of \( (mt) \) in conjunction with supplementary theories about that phenomenon just in case it is deducible from \( (mt) \) and those theories. Presumably, the supplementary theories conjoined with \( (mt) \) must themselves provide a correct explanation of the phenomena in their domain, lest the truth about truth and its relations to other phenomena be deduced from false premises. In an epistemically ideal situation, there may actually be several different supplementary theories adequate for explaining some phenomenon \( q_i \), and at many different levels of explanation; unfortunately, academic and scientific practice is hardly so privy. Suppose that there is some obscure fact \( q_i \) concerning the relationship between truth and, e.g., the electrophysiological correlates of the possession conditions of alethic concepts; then, if there is no (correct) supplementary theory yet formulated for that fact, no deduction will be effected such that \( q_i \) would be explained. Hence, even if \( (mt) \) was able to explain the highest priority ‘facts involving truth per se’, \( (adj) \) would still be false since there are facts that cannot be explained even in conjunction with supplementary theories.

Consequently, the premise in (7) is probably false, insofar as there are phenomena associated with truth for which we have no supplementary theories that are themselves explanatorily adequate. Furthermore, even if there always are explanatorily adequate supplementary theories, the explanatory resources of those supplementary theories must be truth-free. Marian David nicely puts the point thus.
Sure enough, most facts involving truth will also involve other phenomena. But many facts about other phenomena will also involve truth. If all facts from theories about other phenomena, including the ones that also involve truth, can be invoked to explain the facts involving truth, then (adq) is empty and cannot serve to support the minimalist view that (mt) is the right theory of truth—any “theory” of truth can “explain” the facts involving truth, when combined with the facts involving truth. (2002: 164)

Hence, even if (5) were not false, (adq) could only be correct if further implausible assumptions held—namely, that explanations about the nature of truth are not being imported from supplementary theories and that there are always supplementary theories adequate for explaining all the facts that (mt) cannot.

3.4. Deflating the minimalist conception

The conclusion in (8) is not just false because there are facts unexplainable by the explanatory resources of (mt), but is also implausible on independent grounds. In conjunction with the further premise that the best theory of truth is the alethic theory which is both sufficient for explaining all of the facts involving truth as well as the most parsimonious, (adq) amounts to the claim that (mt) is the best theory of truth (Horwich, 1990: 22). This claim can be broken down into three subclaims,

(10a) (mt) is a theory,
(b) (mt) is a theory of truth,
(c) (mt) is the best theory of truth,

which—once unpacked—make gainsays about its status easier to understand (David, 2002: 162). With regard to (10a), it is difficult to produce reasons for why (mt) should be construed as a theory at all. Among other things, theories (in the honorific sense)
generally do not consist in every possible concept as does \( (mt) \) (Künne, 2003: 324). Further, theories typically exhibit internal systematicity, in the sense that they exhibit interesting inferential connections among their general principles; the principles of \( (mt) \), however, are an infinite list of \textit{inferentially disparate} propositions. With regard to (10b), \( (mt) \) is no more a theory of truth than it is a theory of propositions; so, if it is a theory, it is as much a semantic theory as it is an alethic theory. Furthermore, as Dirk Greimann rightly notes, \( (eqv) \) only specifies a class of properties coextensive with truth: \textit{[t]he property that is actually `implicitly defined' by \( (mt) \) is not a property of propositions, but a property of properties of propositions, viz., the property of being a property \( F \) such that for all \( p: F(p) \) iff \( p \), which may be read as the property of being coextensive with truth} (2000: 138). Ian McFetridge, along with many others, have made the same point in noting that \( (eqv) \) enables us to locate a proposition containing no alethic terms which has the same extension as the expression \textit{`the proposition that \( p \) is true} (1990: 36). Yet, as McFetridge points out, what is wanted is not a mere extension-producing “definition,” but something more interesting—i.e., an \textit{explanation}. In any case, the truth of (10a) and (10b) would in no way ensure that \( (mt) \) is the \textit{best} such theory—some other premise is needed to establish (10c), and thus \( (adq) \). Hence, even if Horwich could make good on his commitment to puritanical thesis, it would still be the case that \( (mt) \) is incapable of being used to unique explain what the insubstantive property of being true consists in because neither \( (eqv) \) nor its instances \textit{uniquely} determine the extension of truth. There are, of course, numerous other substitutable schemas and instances that can be used to implicitly define the same extension.
(11a) *the proposition that* \( p \) *is correctly conjecturable* iff \( p \),
(b) *the proposition that* \( p \) *is agreeable to an omniscient being* iff \( p \),
(c) \( p \) iff *the proposition that* \( p \) *is how things are,*
(d) *the proposition that* \( p \) *is not false* iff \( p \).

and so forth. So, not only is \((mt)\) compatible with numerous other alethic theories that acknowledge the existence of propositions, but it—or the minimalist conception, rather—also contains no resources whatsoever for supposing that other theories—especially those that offer solutions to the semantic paradoxes—cannot generate explanations that are at least as informative. In other words, \((10c)\) is an inference to the best explanation—but an inference based on what premise? \((10c)\) only holds if there are no competitors that explain all the facts as well as or better than \((mt)\).\(^{23}\) Have Horwich or any other minimalists conclusively shown this to be the case? Not remotely.

4. **Do platitude-based strategies actually explain anything? A diagnosis**

As mentioned, Horwich treated the platitude in \((eqv)\) as explanatorily fundamental—i.e., as an underived principle which, in conjunction with supplementary theories, is a sufficient explanatory resource for explaining all the facts about alethic phenomena. Horwich continued,

*Our critique of [substantive theories] is not that they are false [… but]*

that none can meet the explanatory demands on an adequate theory of

\(^{23}\) Moreover, as with virtually all inferences to the best explanation, \((adj)\) may still be incorrect or unwarranted if \((mt)\) provides the best explanations relative to a field of really awful theories.
truth. Specifically, none provides a good account of why it is that instances of (eqv) are true. Minimalism involves a reversal of that explanatory direction. On the basis of the equivalence axioms it is easy to see why, and in what form, the traditional principles hold. Indeed every fact about truth can be naturally derived from those biconditionals. Therefore it is they that should constitute our basic theory of truth. (1990: 12–13)

For Horwich, substantive theories of truth are explanatorily inadequate because they fail, in part, to explain why (eqv) and its substitution instances hold. This is not surprising, given that minimalism—and Horwich’s version a fortiori—assumes insubstantivist as a set of working hypotheses. What might be surprising is Horwich’s reversal of ‘explanatory direction’. For suppose that the facts about why (eqv) and its substitution instances hold are indeed part of the explanandum, and that Horwich is correct to say that substantive theories of truth fail to explain those facts; then reversing the explanatory direction amounts to nothing more than explaining the facts by appealing to them.

Surely, this is not what Horwich had in mind; but what then? More likely he intends a transposition—i.e., an inference from the premise that substantive theories of truth fail to explain why (eqv) and its substitution instances hold to the conclusion that (eqv) and its substitution instances no longer constitute part of the target explanandum; instead, they have become the explanans. This reversal has led Horwich to write as if (mt) contains all the explanatory resources that minimalists need to explain what the truth of all truth-bearers consists in, as if (eqv) ‘demonstrates’ or ‘accounts for’ or ‘explains’ why, for any given instance of it, the proposition which is presented as true on the left side of the T-biconditional is fundamentally equivalent to the proposition on the right.

But why should anyone go in for such a reversal? According to Horwich’s opponent, adequate explanations of truth and other alethic phenomena are those that
satisfy some array of basic criteria (e.g., those mentioned in §5.2 below); satisfying those criteria requires that theorists specify why and how the meaning, semantic and pragmatic function, concept, property, etc. of truth promote or uphold the schematic principle of \((eqv)\). In effect, any such specification corroborates the schema as a sort of platitudinous regularity that continues to hold a priori for a certain infinite number of T-biconditionals. And that just means that Horwich’s platitude-based strategy—showing that some particular T-biconditional is an instance of \((eqv)\), or that \((eqv)\) holds for an infinite number of T-biconditionals—turns out to be merely an exercise in confirmation, not explanation. This is reason to suspect that Horwich’s treatment of \((eqv)\) as a minimal and sufficient explanatory resource whose instances constitute the explanans for the data set to be explained commits a basic fallacy—namely, mistaking explanans for explananda. It is also reason to suspect that \((mt)\) does not so much exemplify \((3)\) as it does expose a serious vulnerability of alethic minimalism more generally.

If this is wrong—i.e., if the facts about why \((eqv)\) and its substitution instances hold are or have become part of the explanans—minimalists like Horwich owe us a story about why substantive theories of truth were mistaken to treat them as facts to be explained. Since no such story has been provided, the substantivist has a plausible diagnosis at hand: Horwich’s deployment of minimal explanatory resources has minimal explanatory impact precisely because that deployment isn’t explanatory in the first place. If this is correct, then minimalism altogether avoids engaging the battery of explanatory adequacy criteria—it is an ignotio elenchii.

Both critics and apologists of Horwich’s work have occasionally made allusions to this point in, although none seem to have given it a proper diagnosis. For instance,
Crispin Wright remarked, *all that can be elicited from the equivalence and disquotation schemas is the problem, [...] these principles keep silent when the question is raised, what does the satisfaction or non-satisfaction of this norm consist in, and how can it fail to be a substantive property* (2001: 757). Anil Gupta concurred that an explanation of the instances of *(eqv)* does not amount to an explanation of the platitudinous regularity expressed by it (and vice-versa), quipping that *true* appears simple to deflationists simply because they ignore its most interesting and enigmatic aspects (1993a: 57–81). And Phillip Kitcher provocatively suggested, *the problem with Horwich’s explanation is that it stops at a rather shallow level. Indeed, it’s akin to the classic paradigms of ‘explanation’ that subsumed facts about bird plumage under putative ornithological laws* (2002: 354–55). I think these suggestions are very rightly suggestive; but they have not yet proven to be anything more than a hint about how to diagnose the overarching problem emerging from the minimalist outlook.

Perhaps one way to elaborate on Kitcher’s hint is by analogy with a similar point that Robert Cummins (2000) made about the role of laws and general principles in psychological explanation. Cummins nicely articulated that the explanation of psychological phenomena is not a matter of subsumption under law because psychological laws just are effects, and effects just are explananda—not explanans. He wrote,

*In psychology, such laws [...] are almost always conceived of, and even called, effects. We have the Garcia effect, the spacing effect, the McGurk effect, and many, many more. Each of these is a fairly well-confirmed law or regularity (or set of them). But no one thinks that the McGurk effect explains the data it subsumes. No one in the grip of the D-N model would suppose that one could explain why someone*
hears a consonant like the speaking mouth appears to make by appeal to the McGurk effect. That just is the McGurk effect. (2000: 119)

Cummins—correctly, I think—adduced that the practice of explanation by subsuming phenomena under laws is rare in psychology, and even when it is invoked, what is understood by law tends to be a description of the target of a (mechanistic) explanation. If this analogy holds, then we can grasp why it is that minimalists mistakenly take \((mt)\) to explain all the facts involving truth: the explanation of some \(q\) proceeds by deducing it from the relevant principles of \((mt)\) and any other needed explanatory resources from supplementary theories. In doing so, they take \((eqv)\) to be the source or basis for any admissible T-biconditional, and thus take admissible T-biconditionals to constitute, in part, the explanans in any such deduction. For inflationists—and as Cummins’s and Kitcher’s insights support—data about \((eqv)\) and its substitution instances constitute part of the phenomena to be explained.

One might worry whether the analogy with Cummins’ point is domain-specific—say, holding with regard to deductive explanations with laws in psychology, but not in philosophical logic, linguistics, or alethics. Consider, then, the law of non-contradiction, which sets out the conditions in classical logic under which two statements cannot both be simultaneously asserted (e.g., the conjunction of an atomic statement with its negation). When a statement conjoined with its negation is discovered and ruled impermissible, we take it to be an instance of the law, and we take the law to be confirmed and to continue to hold (relative to our other background commitments in logic). However, it seems to be a misunderstanding to suppose that the law itself, or any of its instances, themselves explain the nature of contradictions and all the facts involving
contradictions thereof—i.e., why contradictions always and everywhere yield falsehoods and why anything follows from a contradiction, what the connection between the law of non-contradiction and the principle of bivalence is, how contradictions function in paraconsistent logics, why we are normatively justified in eschewing contradictions, how it is that different cultures differentially abide by it, etc. At the very least, we would need a story to suppose otherwise. In order to explain why the conjunction of a statement with its negation is contradictory, why contradictions and their denials carry normative force in rational discourse, why contradictions cannot be true, etc., it would not do to merely cite and recite and recite again the law of non-contradiction: what we desire to know about is why it is a regularity or general pattern and how it holds true, not that it is one. As Cummins might say, schemas like \((p \lor \neg p)\) or \(\neg(p \land \neg p)\) just are the law of non-contradiction—not what explains it.\(^{24}\)

This is why merely pointing to a schema of conjunctions of statements with their negations, and particular instances thereof, would not satisfy someone for whom the law

\[^{24}\text{The law of non-contradiction is by no means unique here. Consider a putative law of negation—namely, a principle holding that an expression is false just in case its negation is true:}

\[(\text{neg}) \quad p \text{ is false iff } \neg p \text{ is true}\]

So, does citing (neg) or any of its variants explain all the facts about negation? But isn’t the concept of NEGATION far more complicated than merely that of a unary predicate operating on truth-values? Consider, for instance, the phenomenon of indifferent negation, in which the addition of not has no effect on truth-value:

\[(f) \quad \text{Pierre } \{\text{could/not}\} \text{ care less about moving to Winnipeg.}\]
\[(g) \quad \text{Stefanie } \{\text{knows/doesn’t know}\} \text{ squat about the Bolshevik revolution, Leninism, or Stalinism.}\]

Even if for (neg) did function as an explanans, it seems that the facts about the indifference of not (or other related phenomena, e.g., negative raising) could not be inferred from it; other explanatory principles would need to be summoned.
of non-contradiction was cognitively abstruse: rather than addressing the very call for explanation, it just ignores the elenchus. If this is correct, then laying bare the relationship between the law of non-contradiction and these other phenomena requires further explanations that the law itself does not provide; generally, this explanatory work is done (at least in first-order sentential logic), by referencing the explanatory principles and background commitments that provide for the truth tables of that particular conjunction of a statement and its negation, that explain the normative and illocutionary force of truth and falsity and conjunction, and so forth.

If the analogy with Cummins’ point is gripping, then the subsumption of certain T-biconditionals under the \((eqv)\) neither explains, nor explains away truth or any other alethic phenomena, since a logical law or schema or general principle abstracting away from the propositional structure common to all conjuncts of \((mt)\) would only constitute that which would be confirmed were minimalism to have an actual explanans on hand—that is, were \((mt)\) even in the explanatory business. Instead, biconditional T-schemas and the equivalencies instantiating them are what get explained using the explanatory resources of particular theories of sentential logic and inference and semantic content. Moreover, the explanatory principles motivating truth-tables and inferential procedures of sentential logic are themselves in need of explanation and justification. Such an explanans would be informative insofar as it consisted in a range of theoretical posits and ontological commitments, logical and linguistic analyses, conceptual resources, etc., that are all brought to bear on questions about why and how \((eqv)\) holds as a platitudinous regularity, and continues to do so for an infinite subset of T-biconditionals which confirm it. To be clear, this should not necessarily be taken to support substantivism—its
proponents would still need independent positive arguments to support their conclusions about the robustness of the nature of truth. But it does give reason for supposing that Horwich’s reliance solely on the explanatory resources of (eqv) mistakes confirmation for explanation, explanandum for explanans, and for being worried about the coherence of alethic minimalism more generally.

5. What is a theory of truth about?

I have been arguing that alethic minimalism in general, and Horwich’s version in particular, exemplify the problem of the non-autonomy of facts involving truth. Minimalist theses to the effect that everything needing to be explained about truth and other alethic phenomena can be explained using platitude-based strategies are only plausible on the assumption that there is little to explain in the first place. In the rest of this chapter, I argue that that assumption is unjustified by way of considering how minimalists answer the more basic question: what is a theory of truth about?25 However, I also argue that consideration of how the non-autonomy of facts beleaguerers minimalism

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25 Far too few philosophers have pursued questions about the explanatory scope of a theory of truth. Before Horwich, Scott Soames (1984/2001; see also Naess, 1938a: 12) raised a similar question in the title of his paper what is a theory of truth? but opted instead to discuss Tarski exegesis in lieu of addressing it. Somewhat cryptically, Alfred Ayer suggested that the purpose of a theory of truth is not to answer Pontius Pilate’s notorious (but not unreasonable in light of his interlocutor’s obscurantism; see John 18: 37) quip, what is truth? but instead to describe the criteria by which the validity of the various kinds of propositions is determined (1947: 87). Richard Kirkham (2001: 39) claims that such questions cannot be asked at the outset until it becomes clear that the various projects/programs in his taxonomy are not being confused.
in turn produces reasons for thinking that the non-autonomy of facts does not entail that theories of truth cannot be evaluated, and hence for avoiding a slippery slope.

5.1. The puritanical thesis

For his part, Horwich has contended that a theory of truth should be about the truth, the whole truth, and nothing but the truth about only truth.\(^{26}\) He wrote: one may or may not propose an account which inextricably links truth with other matters: for example, assertion, verification, reference, meaning, success, or logical entailment. [My view] involves the contention that truth has a certain purity—that our understanding of it is independent of other ideas (1990: 12). In this passage, Horwich was articulating a general commitment to what a theory of truth should be about—what I will call the puritanical thesis.

\[(pur)\quad \text{The facts involving truth are data about truth and nothing else.}\]

Horwich appears to endorse the puritanical thesis, and is by no means alone; for instance, many introductory texts and surveys on the topic of truth take the nature of truth to be the starting point of inquiry, and some even take it to be the endpoint, as suggested by Figure 8 below.

\(^{26}\) One hand, it seems that \((pur)\) begs the question against the prejudice in (1); and indeed, it certainly does exhibit a natural compatibility with the second prejudice (see §3.1 below). For whether the facts involving truth constitute an (in)substantive explanandum would seem to depend, in part, on how restricted the facts the involving truth are. And yet, it also seems that \((pur)\) is consistent with either prejudice. For whether a theory of truth is exclusively about the facts involving truth would seem to be independent of whether those facts constitute an (in)substantive explanandum. I do not know how to reconcile this apparent problem.
Figure 8: A traditional decision procedure for organizing theories of truth, adapted from Lynch (2001: 4; see also Vision, 2004; Schmitt, 1995; Næss, 1938a, Künne, 2003; Kirkham, 2001; Dodd, 2002).

Likewise, one of David Lewis’s (2001) main criticisms of the correspondence theory of truth was that it failed to prize truth apart from ontological issues—what he called the existential grounding of all manner of other things. Wherefore is this ‘correspondence theory of truth’ a theory of truth?, wrote Lewis; It seems to be a theory of all manner of
things, and not especially of truth; and what we learn about truth comes not from it but from the allied redundancy biconditionals. Truth is mentioned in the truth-maker principle only for the sake of making a long story short. [...] All other instances of the truth-maker principle are likewise equivalent, given the redundancy biconditionals, to biconditionals not about truth but about the existential grounding of all manner of other things: the flying of pigs, and what-have-you (2001: 278–80).

Putting aside disagreements with Lewis’s remarks for the moment, the supposition that truth can be prized apart from other alethic phenomena in the way Horwich supposed might seem to be an innocuous assumption. Furthermore, the puritanical thesis is a major boon for those looking to do little explanatory work. By endorsing \((pur)\), one can dramatically reduce the data set to be explained for the simple reason that, ex hypothesi, only a single criterion on explanatory adequacy need be satisfied—namely, that of explaining what truth is (alt., \textit{what it is for something to be true, what the property of truth amounts to if anything}). This makes it a very powerful management tool: putting it to work means offloading the explanatory burden onto others.

In answering \textit{truth} to the question \textit{what is a theory of truth about?}, we go around in a very small circle. An obvious problem with \((pur)\), then, is its explanatory idleness: plainly, it does nothing to explicitly articulate or even help determine what the facts involving truth are, much less in any theory-neutral way. Of course, Horwich is perfectly clear about supposing that those facts—whatever they are—are conceptually independent from facts involving other alethic phenomena. In any case, the obvious problem with \((pur)\) is not the main problem—namely, its being patently false. For one thing, the
distinction between semantics and alethics is articulable, substantial, and fairly clear. It is not, however, sharp. Some overlap between these subdisciplines is to be expected. For example, explanations of alethic properties or operators like being true are tightly interconnected with explanations of linguistic items like truth predicates and other alethic terms, as well as alethic concepts, constructs, and certain mental representations (e.g., SATISFACTION, CORRECTNESS, VERIFICATION, VERISIMILITUDE). It therefore stands to reason that explanations of the facts involving truth should be about each of these things and their interconnections to one another. If so, then the disciplinary relationship between alethics and semantics will need to be symbiotic, in the sense that both alethic and semantic theories will eventually presuppose and even recruit understandings of phenomena that are primarily and properly located within the others’ explanatory scope. For example, as we shall see, cognitive grammar employs for the purpose of executing semantic analysis and description a construct DESIGNATION, which is a reference-like relation from an expression to a conceptual structure; presupposed is a notion of reference as the basis of designation as a reference-like relation. Likewise, an alethic theory may involve analysis and description of semantic structure, or even the lexical category involving truth-talk and related locutions (e.g., es wahr, being true of, truthiness, yours truly, see the world aright) and metaphors (e.g., discovering truth is getting down to the bottom of things, truth is illumination, in the light of truth). Certain types of mental states and cognitive events (e.g., sincerity and seriousness, judgment, realization) will also be relevant to both alethic and semantic theories, as well as certain types of illocutionary acts and other verbal behavior (e.g., assertion, perjury, verdictive
speech). Of course, this is only natural given the Greek origins of the term pertaining to
cognitive states of, e.g., attention, memory, and veridical perception.

5.2. **Criteria for assessing theoretical adequacy**

Some theories of truth are actually about truth (others are about the word *true*,
the concept *TRUTH*, etc.). However, the traditional cynosure for constructing alethic
theories has been the description and analysis of our ordinary concepts and
unintellectualized opinions—not questions about the deep metaphysical nature of truth;
hence, it is far from obvious that explaining what it is for something to be true must be
the point of departure for producing a theory of truth—much less the sine qua non of
theory construction.27

The falsity of the puritanical thesis therefore becomes salient upon considering
that there are several other important and widely-acknowledged criteria by which to
gauge the adequacy of theories of truth besides that of explaining what it is to be true,
i.e., what truth consists in if anything. Another criterion is that alethic theories should
explain what the grammatical roles and functions of truth predicates are, and still another

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27 Given the besetting difficulties involved in constructing a pure theory of truth
and only truth, as well as the well-known perils of drawing metaphysical conclusions
from linguistic premises, many contemporary philosophers commonly proceed by
reducing all questions about the nature of truth to questions of the grammatical behavior
and locutionary significance of a few alethic terms used to denote it (e.g., Quine, 1960: 2;
that questions about property-hood can be settled by reframeing them linguistically—i.e.,
the answer to questions about whether or not truth is a property seems to be fixed once
predicates like *is true* are determined to be genuine (in the sense that they can be replaced
by predicate variables). Similarly, there is an equally plausible case to be made that
investigations of our alethic concepts should be foregrounded instead, given that
investigators cannot get along without them; this is especially the case for cognitive
scientists and those who reject linguistic behaviorism.
is that they should offer a principled account of what sorts of entities count as the proper or primary bearers of truth. Many adequacy criteria are interrelated. For instance, satisfying the first criterion by explaining what our alethic concepts are the concept of—may afford a means of satisfying other criteria with regard to alethic concepts themselves, e.g., specifying what TRUTH is, determining how cognizers come to have and/or need concepts like TRUTH, and indicating the conditions whereupon one could be said to possess some of those concepts. Satisfying these criteria may in turn help to delineate the meaning of the term true, or even its lexical cognates and the senses of related alethic terms. For example, many philosophers concur with Alvin Goldman, who declared that

*the primary aim [of a theory of truth] is to explain what is meant by [the word] truth, […] to define the phrase true* (1999: 41). Likewise, explaining what the functions or roles of a truth predicate are may offer immediate resources for explaining the pragmatics of alethic terms in addition to their semantics (e.g., how they operate in assertion, what the nature of their illocutionary force is), or vice-versa.

The falsity of the puritanical thesis becomes clearer still in recognizing that the aforementioned adequacy criteria constitute the mere beginning of a long list. Additionally, there is a need to explain the nature of verisimilitude and falsity (Weatherson, 2005); truth-making and truth-makers; the individuation and analysis of truth-conditions; articulation of the principles governing truth preservation and solutions to the problem of mixed inference; analyses of the place of truth in non-classical logics (Priest, 2005); explanations of the relationship between truthfulness and truth (Williams,

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28 See, e.g., Rodriguez-Pereyra (2005); Olson (1987); Deutsch (1979).
2002), or between veridical perception and truth,\textsuperscript{30} or between truth and action (Hayakawa, 1939); solutions to Liar paradoxes and other related antinomies and puzzles;\textsuperscript{31} and analyses of whether alethic concepts and properties are normatively constituted. Moreover, this battery of criteria is by no means exhaustive; a comprehensive one would taxonomize all the types of data that theorists could discover, want, or require of explananda.

5.2.1. Explanatory pluralism. Suffice it to say that accomplished theories of truth accomplish different goals. (Of course, neither need this entail anything about the weighting of criteria, nor need it entail that any criterion is as important to satisfy as any other.) Ideally, we desire a single theory that explains all of the facts involving truth and other related alethic phenomena. But while it may be an important desideratum that they satisfy as many criteria as possible, candidate theories need not satisfy all such criteria to count as being explanatorily adequate. Indeed, it is necessary and sufficient for assessing the adequacy of candidate theories that they address only a modicum of the overall battery. This is fortunate, since the failure to acknowledge—much less address—some of these measures is common; e.g., a theory may solve numerous problems with truth-value gaps/gluts, or with self-referential paradoxes and semantic antinomies, but be indifferent about the question of truth-makers; an adequate account of sincerity, deception, and the normativity of truth may turn out to be entirely silent on the question of the lexical semantics of alethic terms or truth-aptness, etc. That not all criteria need to be satisfied in

\textsuperscript{30} See, e.g., Smith (2000); Reber & Schwarz (1999); Prinz (2004); Langacker (2004); Barsalou (1999).

\textsuperscript{31} See, e.g., Yaqūb (1993); Wilson (2000); Thalos (2005); Grover (2005).
order for a candidate theory to be explanatorily adequate raises the question of explanatory pluralism, and opens up the possibility of there being incompatible alethic theories that have equally legitimate claims to being explanatorily adequate.  

5.2.2. Adequacy criteria versus data. The existence of batteries of adequacy criteria suggest that the problem of the non-autonomy of facts involving truth is both worth taking seriously but need not entail a particular slippery slope. The slope is engendered by the following inference. If our inquiries into the facts involving truth become a theory-internal affair, as fact relativism suggests, then it appears that the idea that we assess the explanatory adequacy of any candidate theory of truth in a theory neutral way is jeopardized. And where there is no straightforward adequacy metric applicable to any and all candidate theories of truth, then our attempts to compare, evaluate, and arbitrate between any two such theories \( T_1 \) and \( T_2 \) will be a quixotic task, circulus in probando. Yet, given adequacy criteria, there is a sense in which comparison, evaluation, and arbitration is possible.

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32 Indeed, this seems to be a primary motivation for Sher’s (1998, 2004; see also Lynch, 1998) defense of what she calls a moderate correspondence pluralism—the view that the study of truth is best conducted by a set or family of partially-overlapping correspondence theories or principles that individually address some criteria but that collectively give a comprehensive account of the nature of truth. An anticipation of Sher’s moderate correspondence pluralism can be found, to some extent, in Doss (1966). Also, those with roughly Feyerabendian inclinations may see little problem with the more radical view that sets of theories with no explanatory power—i.e., those whose explanations fail to adequately address any such criteria—might still be helpful insofar as they stimulate creative ideas for new theoretical endeavors, provide methodological lessons for future paradigms and positively point out pitfalls, affect the dynamics of theoretical evolution, promote argumentation and analysis, etc. That is, sets of theories or principles can be informative where individual members fail.
One should not read into this more than is stated. In particular, it does not follow from the fact that comparison, evaluation, and arbitration between two theories $T_1$ and $T_2$ is possible that the problem of the non-autonomy of facts goes away. To see why, it is worth pausing here to point out and avoid a potential confusion—namely, the confusion between what theories of truth are about with the criteria with which they are gauged. Positing and fixing upon a battery of adequacy criteria may indicate that ideological commitments to, e.g., $(pur)$ are misguided, but doing so does not fully establish what the facts involving truth and other related alethic phenomena are. The actual data to be explained still needs to be specified. After all, batteries of adequacy criteria are a coarse-grained taxonomic overlay, which help theorists categorize parts of the explanandum for the purpose of having norms and standards for theoretical assessment. In order to impose parameters on what sorts of phenomena count as relevant data to be explained, adequacy criteria must be abstractions away from actual compilations of concrete psychological, linguistic, and logical data across various natural languages—the very data in need of explanation and analysis.

5.3. A theory of truth just is an alethic theory?

One important moral, then, is that where the facts involving truth are so tightly interconnected with the facts involving other alethic phenomena, there is good reason to suppose that a theory about truth will necessarily involve other matters, as Horwich put it.\textsuperscript{33} Considerations of this sort indicate that the relationships between truth and other

\textsuperscript{33} This moral is confirmed by examining some well-known specimens. For example, Quine’s disquotational theory of truth equally serves to generate explanations about quotation and semantic ascent (1970); Field’s version of disquotationalism is
phenomena should be explicitly accounted for. And so (pur), we might say, is at best a deeply anesthetized way of describing the various combinations of explananda. It is a striking example of how theoretical commitments can influence the explanatory process.

This moral is by no means new—as Oscar Wilde is famously said to have quipped, the pure and simple truth is rarely pure and never simple. But it bears repeating, I think: a theory of truth could simply forsake all of the facts involving these other phenomena, but at the cost of having very little to say. Consequently, a slightly better answer to the question about what a theory of truth about is: the facts involving TRUTH and other intimately related alethic phenomena. But then, we have basically arrived at a familiar conclusion: what usually goes by the name theory of truth just is an alethic theory—i.e., a cluster of potentially formalizable explanations and analyses that adequately illuminate important aspects of the facts involving alethic phenomena, with TRUTH and true and truth being particularly central and of focal interest.\(^{34}\)

The suggestion that some phenomena within the explanatory scope of an alethic theory are particularly central and of focal interest implies some form of data prioritization. Unlike data priority, the puritanical thesis is not so much a regulative ideal as it is an ideological commitment. Of course, that a theory of truth is about the facts

\(^{34}\) Horwich, Lewis, and many others could never go for this without treading on past statements of his position; but those statements are unwarranted, since the commitment to purity is prima facie independent of deflationism, insubstantivism, or minimalism. One can reject purity and still be neutral about what data the explanandum consists in.
involving alethic phenomena generally may strike those with proclivities toward (pur) as literally having changed the subject, and to something much more coppiced at that. The proper response would be to happily concede the point. For the change of subject was from truth to what a theory of truth is about. The qualms of puritanicalists—still under the anesthetic effects of their ideological commitment—likely won’t be assuaged by such rhetoric; so much the worse for them.

Accepting the conclusion that theories of truth just are alethic theories should have some potentially startling consequences. For one thing, it underscores the intuition that I began the preface with: truth and cognition are intimately related (given that aletheia pertains to cognitive states). And where there is a noteworthy relationship between truth and cognition, explanations of these two phenomena should account for it—possibly even in tandem. For another, it raises the explanatory stakes since the nature of truth is but a portion of the target explanandum; subsequently, it also suggests that a theory of alethic phenomena—and of truth, in particular—must develop in the context of adjacent themes. Explanations of truth per se ultimately cannot avoid issues of, e.g., truth-bearers and truth-aptness—issues which are themselves deeply influenced by other issues involving the viability of a construct of LITERAL MEANING, the nature of grammar, conceptual representation, and so forth. Similarly, explanations of truth that invoke posits such as facts, truth-makers, or other worldly correlates presume serious ontological commitments about the nature of events, objects, situations, etc.—commitments which are influenced by other metaphysical and psychological themes (sets, propositions, object recognition, categorization, etc.) that bear on them. Obviously, an alethic theory needn’t be a theory of everything; but it seems inevitable that a comprehensively adequate alethic
theory will be high-dimensional, given that \textit{TRUTH} is a fundamental concept and is thematically interrelated to numerous other important constructs, and given that explanations and analyses of alethic phenomena are gauged according to a large battery of adequacy conditions.\footnote{I find it likely, then, that our best theories of truth and other alethic phenomena will be far too complex to be fully understood or studiously confined to the perspective of a single discipline. This is not yet to say that philosophy no longer has any fundamental charge, or that a particular interdisciplinary field like cognitive science should enjoy our methodological commitments. But when the phenomena-to-be-explained involves natural language data, mental mechanisms, metaphysical properties, grammar, logic, experiential factors, etc., it should be obvious that \textit{a priori} inhibition of multiple perspectives becomes a methodological liability.}

5.4. \textit{Explanatory conservativism versus liberalism}

If the point is to construct an alethic theory for natural language, then it is surely important to heed the old Wittgensteinian injunction, \textit{Look, don’t think!} This should be interpreted as a meta-theoretic desideratum on sound explanatory practice: do not be closed off a priori to the possibility that some hitherto-unheard-of datum may turn out to be relevant. Or, more strongly: any fact can be included in the data set \{\(\varphi_1, \ldots, \varphi_n\}\ comprising the explanandum if an appropriate inference can be made that connects them. Call this liberal stance on fact inclusion \textit{explanatory liberalism}.

Explanatory liberalism is not only a natural fit with the very idea of an alethic theory, but also with views falling within an inflationary framework that depart from the first organizing prejudice (1). The obvious reason why is that there is an intimate relationship between explanatory liberalism and the views comprising it—substantivism, particularly. Indeed, the relationship is practically one of identity: one is an explanatory liberal iff one takes the phenomena to be explained to be metaphysically robust,
epistemically or logically significant, cognitively or linguistically complex or multifaceted, and so forth. Insofar as the two terms are co-referential, then being an explanatory liberal, like being a substantivist, comes to the same thing—i.e., producing a rich and intricate description of the phenomena to be explained, which treats data naturally, which does justice to its complexity, and which does not excessively abstract away from it. This is not yet to say that deflationism—or insubstantivism, in particular—is fundamentally flawed, though it might indicate that one organizing prejudice is more plausible than the other. What makes explanatory liberalism interesting, I think, is that it has startling consequences for what an alethic theory can be about—i.e., it can be about virtually anything, so long as theorists are both clever enough to discover the full range of facts involving truth and have justification for their inclusion within the data set to be explained. This might range from more central matters, like the nature of the copula, correspondence relations, or truth-aptness in general, to matters less central, like perjury, factive predicates-in-L, assertion markers in Polish, the designation of Entdecktheit, etc.

As such, the explananda will consist in both a priori and a posteriori data of varying generality and specificity covering a wide range of intelligent behavior, natural language, cultures, etc. To that end, consider an unordered compilation of candidate facts involving truth and other alethic phenomena:

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36 Data about truth extracted from artificial or formal languages needn’t be excluded, although it should be clear that explaining truth in natural languages is the main desideratum. We might also do well to remind ourselves of Davidson’s (1996) commentary on Tarski’s research, wherein he suggested that Tarski’s success in showing how to define truth for certain artificial and formal languages simultaneously provides a proof that truth per se is unanalyzable, since any putative definition must relativize to particular languages (or idiolects). If Davidson is right, the problem of ascertaining a common ground upon which the debate between maximalism and minimalism can be carried out becomes more difficult and fragmentary, since the most theorists can hope to
• Liar paradoxes can arise when alethic predicates in a semantically open language $L_0$ are predicated of sentences within $L_0$ rather than within a meta-language $L_1$. (Tarski, 1944)
• The concept TRUTH (neltiitztli) in the Uto-Aztecan language Nahuatl designates the property of being well-grounded or justified, rather than a relation of correspondence. (Maffie, 2002)
• In Spanish, *la verdad* functions as a discourse marker to introduce unexpected responses to an interlocutor. (Serrano, 2001)
• It is not a necessary condition on veridical linguistic constructions that literal sentential meaning obtain. (Gibbs, 2005)
• During sentence comprehension, semantic and pragmatic information about truth undergoes rapid parallel binding and integration in the left inferior prefrontal cortex. (Hagoort et al., 2004)
• The determination of truth-values in Swedish discourse is marked with a particular phonetic structure, and does not require positing a linguistically unrealized alethic operator. (Spenader, 2004)
• Veridical judgments are subject to a repetition effect and a perceptibility effect. (Thouless, 1974; Reber & Schwarz, 1999; Begg et al. 1992)
• Feelings of familiarity induce an illusory feeling that $x$ is true. (Begg et al. 1992)
• Languages with truth predicates are more expressively powerful than those without. (Quine, 1970; Leeds, 1978)
• The assertoric force of truth-talk does not consist in using the word true. (Frege, 1918/1956)
• Truth is a fundamental norm necessary for and constitutive of liberal democracies. (Lynch, 2004)

I am unsure whether every item in such a list will survive as a candidate fact to be explained. In any case, for many philosophers, this sort of compilation of data will be immediately controversial—a sure sign that something has gone drastically awry, and a reason for rejecting the distinction between alethic and semantic theories. After all, is it

achieve is piecemeal explanations and analyses of truth-in-$L$ (rather than truth itself). Accordingly, it is a serious theoretical question about what the *'in-$L$'* relation comes to.
not just crazy to think that a proper analysis of truth and other alethic phenomena could possibly have anything whatsoever to do with, e.g., left inferior prefrontal cortex activity or the acoustic/phonetic patterns of Swedish speakers? Does not the explanandum consist only in facts relevant to determining the extension of is true, or the nature of truth as suggested in Figure 8.

This reaction amounts to an “incredulous stare,” advanced on the basis of explanatory conservatism, the most radical from of which is (pur). As I have argued, the commitment to purity is a misbegotten attempt to artificially pare down the explanatory task, and artificiality is not a theoretical virtue. The interrelatedness and range of criteria, and the vast array of purposes for which a theory of truth might be constructed, and the complexity of data sets comprising the explananda make the ideological commitment to (pur) look more limp than limpid. Hence, this reaction deserves a gentle reminder that can be formulated independently of any commitment to explanatory liberalism: determining the extension of the default English predicate is true is not the sole explanatory task for an alethic theory, and perhaps not even the most fundamental task. And within the context of explanatory liberalism, it should be seen as a failure to heed the lesson of the non-autonomy of facts.

5.4.1. Is cognitive linguistics incompatible with explanatory conservatism? The attempt to achieve both a comprehensively adequate and explanatorily powerful theory suggests that explanatory conservatism would be a hindrance to cognitive linguistics. In aiming to produce a suitable theory of truth, the cognitive linguist can wholeheartedly allow the study of truth per se or TRUTH or true to occupy a central position among the
alethic phenomena to be explained, since this is merely a matter of prioritizing the data to be explained; and again, alethic theorists need have no truck with matters of data priority. What she should not accept are the purist’s a priori and artificial isolation of a small subset of facts about truth from the supporting matrix of data about other more and less intimately related alethic phenomena at varying levels of generality across natural languages, followed by the attempt to represent the small isolated subset as exhaustively comprising the explanandum.

Cognitive linguistics appears quite incompatible with the explanatory conservativism of Horwich, Lewis, and other purists, which is not yet to say that it is necessarily committed to explanatory liberalism or a radical “impurity” thesis. Indeed, there is good reason to be self-critical and cautious here. For such liberation can be dangerous: if everything related to cognition becomes potentially relevant under new descriptive confines, then the explanandum may swell uncontrollably (beyond mere complexity). But with an eye toward this danger, it should be clear that explanatory liberalism about the facts to be explained is a liberating move away from traditional analyses of truth, in the sense that new ways of characterizing, redescribing, and thinking about the alethic phenomena under investigation open up to the theorist. The shackles of traditional explanatory conservatorial constraints and concerns—purity, in particular—are thrown off precisely because the phenomenon to be explained is reconstituted, and reconstituted in a way where, e.g., cognition become important again.

5.4.2. Explanatory conservatism, deflationism, and cognitive linguistics. In chapter two, I discussed the cognitive content, and a fortiori the cognitive ability to
construe a given scene or situation in alternate or contrasting ways. The observation that the ability to construe inheres in content is often thought—at least by many cognitive linguists—to pose a (potentially) fatal problem for truth-conditional theories of meaning (e.g., Croft & Cruse, 2004). Suppose that to be the case; but then, what follows from the rejection of the truth-conditional theory of meaning? It is often thought—at least by many philosophers—that the short answer is: deflationism about truth (e.g., Field, 1994). The reason why is that deflationism is often thought to be a reaction to the truth-conditional theory of meaning, and the received view of semantics more generally. If so, then since cognitive linguistics has made the eschewal of truth-conditional theories of meaning an explicit part of its theoretical platform, cognitive linguistics would appear to be consistent with, committed to, and entail, deflationism about truth.

Indeed, it seems that only if deflationism is true would cognitive linguists be justified in ignoring truth and other alethic phenomena or disavowing the existence of any such lacunae. If so, then plainly—and despite occasional claims to the contrary—cognitive linguists have a significant stake in how current philosophical debates about truth play out. In particular, they seem to have good reason for advancing the cause of deflationism. For one thing, being able to establish deflationism as the correct or best account of truth would seem to be good warrant for pardoning the lack of an adequate alethic theory internal to the framework. For another, deflationism seems to be compatible with cognitive linguistics in both letter and spirit: both involve a mutual revulsion of traditional metaphysical projects, both eschew the received view of semantics, both have involved a reversal of the priority of truth to meaning, and both involve suspicions of certain inflationary ontological posits (e.g., facts, propositions).
I think that the contrary—and counterintuitive—claim that cognitive linguistics should not endorse deflationism about truth has more going for it than most folks suppose. More stridently, cognitive linguists should not endorse deflationism about truth, insofar as deflationism about truth is not viable. For one thing, there is an intimate relationship between explanatory conservatism and insubstantivism, as we have already seen—one of identity or co-referentiality. So where explanatory conservatism is implausible, particularly in its more extreme forms, so too is insubstantivism. Since deflationism is partially comprised of such views, deflationism would appear to be in trouble. Further, as the definition of a minimalist theory in (3) makes clear, minimalism is typically endorsed only on the basis of having assumed insubstantivism implies. So where either explanatory conservatism or insubstantivism are implausible, the justification for minimalism is undercut. Further, if minimalism can be shown to be flawed for independent reasons, and explanatory conservatism can be shown to actually imply minimalism, then, by modus tollens, if cognitive linguistics weighs in against minimalism, then cognitive linguistics weighs in against explanatory conservatism (and insubstantivism if the two views are co-referential). This implies that cognitive linguists are best off parting company with deflationists. Moreover, contrary to received wisdom, cognitive linguistics is fully compatible with certain versions of correspondence theories of truth, and with substantivist theories more generally. The reason is that not all versions of the correspondence theory are committed to objectivist semantics or naïve semantic realism.
References


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