# HOW TO THINK ABOUT MEANING

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# HOW TO THINK ABOUT MEANING

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*I think that the notion of meaning is always more or less psychological, and that it is not possible to get a pure logical theory of meaning or of the symbol. I think that it is the essence of the explanation of what you mean by a symbol to take account of such things as knowing, of cognitive relations, and probably also of association.*

– Bertrand Russell, 1918: 45

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# PREFACE

I first started thinking about referential semantics in grammar school. A noun stands for a person, place, or thing, I was taught, while a verb stands for a state or action. But I never believed it, for reasons I can now articulate. Depending on one's construal of "thing", for instance, either states and actions would count as things, in which case verbs would be nouns, or justice, energy, and vacuum would not be things, in which case not all nouns would be nouns. (It is sometimes added that nouns cover ideas too, and that ideas are things, but if "justice" referred to an idea, "justice exists" would be trivially true.)

I first started thinking about truth-conditional semantics when I entered graduate school at the University of Arizona, in 1985. To know the meaning of a sentence, I was taught, is to know what conditions would make the sentence true. But I didn't believe it, partly for the reasons pressed in my 1991 and 1998 doctoral dissertations. Segments of these dissertations went to hundreds of philosophers during my time on the job market, and I would like to think that they helped spur the subsequent research booms on quotation and on pejoratives.

My dark thoughts about truth-conditionalism continue in the present work. Chapters 2 and 8 were supported, in part, by a grant from the City University of New York PSC-CUNY Research Award Program, for which I am grateful. A version of Chapter 3.3 first appeared as "Spurning Charity" in *Axiomathes* (2006), a version of Chapter 7.1 first appeared as "Demonstrative and Identity Theories of Quotation" in the *Journal of Philosophy* (2006), and a version of Chapter 7.2 first appeared as "Quotational Construction" in the *Belgian Journal of Linguistics* (2005). I would like to thank the publishers of all three journals for permission to reprint.

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Finally, I wish to thank my parents, Mark and Joyce. I am grateful for their remarkable fortitude in the face of extraordinary hardships. For instance, my father lost his youth in an American prison camp – neither charged nor tried nor convicted – guilty for having Japanese grandparents. (The point is worth making because of its renewed relevance today, as the rule of law disintegrates.) My parents heroically raised me to see through humbug, and to them I lovingly dedicate this work.

# NOTATIONAL CONVENTIONS

I use "TC" to stand for *truth-conditions* or *truth-conditional*, depending on grammatical context. I use " ≡ " and "iff" as short for the English biconditional "if and only if". The English "if and only if", note, is not always material or truth-functional. Depending on context, its import may variously be analytic, nomological, inferential, or unspecified.

I use "S" schematically to stand for a language-using subject – a speaker, hearer, or overhearer. I use "P" schematically to stand, neutrally, for a sentence or statement or proposition. I also sometimes use it to stand for a *term that denotes* a sentence, statement, or proposition, when context makes it clear. When context is insufficient, or when I wish to heighten the difference between a sentence and its name, for the latter I use "Φ".

As a rule I use ordinary quotation marks for metalinguistic citation and reportive quotation; I use apostrophes or italics for quotation inside of quotation and also for glosses; and I use small capitals for paragraph headings, concepts, and names of theses and arguments to which I later refer. In using quotation marks I follow the sensible style of punctuation that often appears in the linguistics literature [see Pullum (1991)].

I generally assign my examples Arabic numerals, adding a prime or double-prime when I entertain one or two different analyses of a given example; I use capital letters mnemonically chosen for especially important display items; I use small letters for premises in arguments; and I use roman numerals to distinguish points made in the text. In this, as in all else, consistency is occasionally sacrificed for clarity or grace.

# PART I THEORETICAL ISSUES

Chapter 1

# INTRODUCTION

The present work puts forth a new theory of linguistic meaning, one that takes seriously the connection between meaning and the propositional attitudes. ATTITUDINAL SEMANTICS, as I call it, advocates a naturalistic kind of mentalism, which is to say that it is a brand of psychologistic or cognitive semantics.

Section 1 previews the book and Section 2 spells out some standards for what would count as theoretical success. A theory is successful to the extent that it comes to grip with its subject matter, and does so at least as convincingly as other available theories. The leading theories of meaning now available are catalogued in Section 3. They do not solve problems as well as attitudinal semantics, or so I ultimately shall argue.

## 1. Semantics with Attitude

It is, I trust, no big deal to claim that (1) is true, where S is a proficient speaker of English:

(1) If S thinks "vacation will last a fortnight" then S thinks that vacation will last two weeks.

Likewise, I trust it is no big deal to claim that (2), charitably construed, is true:

(2) If S thinks that vacation will last two weeks then S thinks "vacation will last a fortnight".

If S thinks that vacation will last two weeks then, given that S is a proficient anglophone, S surely bears some thought-like cognitive relation, at least

implicitly and dispositionally, to the sentence "vacation will last a fortnight". Taken together, then, we get an "if-and-only-if" equivalence:

(3) S thinks "vacation will last a fortnight" ≡ S thinks that vacation will last two weeks.

Now for the contentious part. I propose not only that (3) is true, but that it serves as a semantic analysis for the sentence "vacation will last a fortnight". More precisely, it serves as a partial explanation of the meaning of that portion of the explanandum that does not appear in the explanans, namely the phrase "a fortnight".

In order to appreciate the force of my proposal, one needs to understand how it differs from prevailing views. According to almost every theory of meaning found in philosophy, and most found in linguistics, anthropology, psychology, and computer science, meaning is specified at least partly in terms of reference, truth, or both. More particularly, the meaning of a sentence is given by specifying the conditions under which that sentence would be true. The result is TRUTH-CONDITIONAL SEMANTICS – TC semantics or truth-conditionalism, as I shall call it – with analyses like:

(4) "Vacation will last a fortnight" is true ≡ vacation will last two weeks.

In general, TC semantics holds that the proper analysis of meaning takes the following form:

(TC) Φ is true ≡ P.

The influence of the TC formula goes beyond semantics. In the tradition of Socrates, many epistemologists, metaphysicians, and moral philosophers today conceive of their enterprise as the giving of necessary and sufficient conditions – in effect, finding instances of (TC).

Following the stipulation of Morris (1938), some philosophers regard truth-conditionalism as definitionally constitutive of semantics. Lewis (1970: 169), for instance, writes that "semantics with no treatment of truth-conditions is not semantics". Such decrees do a great disservice to inquiry into the nature of language, however, for they use a word that looks like it applies to a *subject area* in actual reference to a *theory*. To say that semantics is the study of linguistic meaning – which follows the usage of most linguists, most cognitive psychologists, some philosophers, and the present work – is to make a vague pretheoretical claim; to say that semantics is the study of word-world relations is to imply, given the precedent use of "semantics", that meaning is to be explicated in terms of word-world

relations. The latter assertion does not identify a field of inquiry, it stakes a highly theoretical and tendentious claim.

The approach to semantics taken here explicates meaning in terms of *attitude-conditions* – those conditions under which an expression is entertained or otherwise held under some propositional attitude. Attitude-conditional, or attitudinal, semantics issues analyses of the following form:

(A) S thinks $\Phi \equiv$ S thinks that P.

When I say that (A) serves as a general formula for semantic analysis, I mean two things. First, I mean that *(A) is necessary* because no other available format will do the required work. My reason for saying this is developed at length in Part Two: whereas TC semantics is incapable of analyzing connotation, ambiguity, the use-mention distinction, and the truth predicate, attitudinal semantics does the trick for each. Second, I mean that *(TC) is unnecessary or worse*; it fails to shed light on the topics just mentioned, and indeed it contradicts both common sense (Chap. 2) and the laws of logic (Chap. 8). My thesis, then, is that *truth-conditional semantics ought to be abandoned in favor of attitude-conditional semantics*; that semantic analyses ought to yield the form of not (TC) but (A).

My project thus aims to provide philosophical and linguistic aid and comfort to mentalist as opposed to mind-independent, reference-based, truth-conditional semantics. Such semantics, fueled both by spectacular achievements in logic and by the positivism of the early twentieth century, remains dominant. As it undergoes its own internal challenges from contextualism (§3.6), speech-act theory (§3.7), and two-factor conceptual role semantics (§3.9), it is also beginning to meet more opposition from mentalist semantics. Mentalism is congenial to the methodological solipsism of cognitive science, which has just this past generation prevailed over behaviorism, and it characterizes the growing movement of cognitive linguistics. Cognitive linguists, unlike traditional generative linguists, emphasize meaning as a product of human agency embodied in particular biological and cultural matrices. The first step to capturing this agency and embodiment, I suggest, can be taken by explicitly incorporating into our analysis of a language the subjects who speak, hear, and otherwise use it, as in (A).

After wrapping up preliminaries in Chapter 1, in Chapter 2 I show the need for an alternative to the truth-conditional theory of meaning. Even if it does not convince you, I hope that, by shifting the burden of proof in some measure, it helps to level the playing field for subsequent chapters. Chapter 3 presents a top-down argument for attitudinal semantics, and there I also discuss its analytic framework in greater detail. Chapter 4 counters

both arguments for truth-conditionalism and objections against attitudinal semantics. In the end, though, theories are to be judged by their fruit, and so the rest of the book turns toward applying attitudinal semantics to phenomena that are poorly understood by existing theory.

Part Two, aside from serving as a series of bottom-up arguments against truth-conditionalism and in favor of attitudinal semantics, consists of studies in select topics that should be of interest in their own right. Chapter 5 addresses the emotive content of slurs and pejoratives (e.g. "Polack"), and connotation generally, arguing that it cannot be accounted for by truth-based semantics. In comparison, the meaning of a pejorative is easily captured by the attitudinal framework, which can appeal to both cognitive and affective attitudes. To anticipate: against the various analyses given under (5), I propose (6).

(5) "Nietzsche was a kraut" is true ≡ Nietzsche was a kraut.
"Nietzsche was a kraut" is true ≡ Nietzsche was German.
"Nietzsche was a kraut" is true ≡ Nietzsche was German and Germans are despicable.
"Nietzsche was a kraut" is true ≡ Nietzsche exemplifies the negative stereotype of Germans.

(6) S thinks "Nietzsche was a kraut" ≡ S thinks Nietzsche was German and S disdains Germans.

The importance of mentalism cannot be overemphasized if, as I believe, all natural language is suffused with connotation.

Chapter 6 points out difficulties for various truth-conditional representations of ambiguity, including (7), (8), and (9), to which the attitudinal account (10) is immune.

(7) "x is a bank" is true ≡ x is a [kind of] financial institution or
"x is a bank" is true ≡ x is a [kind of] slope.
(8) "x is a bank" is true ≡ x is a financial institution or x is a slope.
(9) "x is a $bank_1$" is true ≡ x is a financial institution and
"x is a $bank_2$" is true ≡ x is a slope.
(10) S thinks "x is a bank" ≡
S thinks x is a financial institution or S thinks x is a slope.

Like the previous chapter, this one on ambiguity, whether it goes in the right direction or no, at the very minimum dramatizes the need for contemporary theorizing to get up and go.

Chapter 7 is a contribution to the burgeoning area of quotation studies. The distinction between plain language and quotation, subserving that of use and mention, grounds the discipline of linguistics by delimiting its subject matter. It also poses persistent problems pertaining to such foundational matters as opacity and compositionality, the nature and very existence of logical form, convention and intention, and the comparative roles of semantics and pragmatics. According to the semantic Demonstrative Theory, (11) is equivalent to a sequence of sentences, each having its own truth-conditions:

(11) Bush said that he'd "cut taxes".
(11′) ∃u(SAIDb, u & SAME-SAIDu, x & SAME-TOKENEDu, y). He'd cut taxes.
[where x points to the whole of the second sentence, y to just "cut taxes"]

According to one version of the more pragmatic Identity Theory, (11) is equivalent to (11″):

(11″) Bush said that he'd cut taxes.

According to the attitudinal view put forth here, (11) is not regarded as necessarily-and-sufficiently equivalent to (11′), (11″), or anything else. Rather, (11) is analytically inseparable from (12), which in turn is regarded as equivalent to (12′).

(12) S thinks "Bush said that he'd "cut taxes" ".
(12′) S thinks "Bush said that he'd cut taxes" and S thinks of "cut taxes".

This equivalence is an idealization of the following defeasible equivalences.

(13) S utters "Bush said that he'd "cut taxes" " ≡
(a) S *uses* "Bush said that he'd cut taxes" and (b) S *mentions* "cut taxes" ≡
(a′) S intends to draw attention to the proposition that Bush said that he'd cut taxes and
(b′) S intends to draw special attention, for some unspecified reason, to the sequence of words [cut] [taxes].

One reason for drawing special attention to a given expression, especially in the context of "said that", is to indicate that those very words have been used, but there are other reasons as well.

Chapter 8 argues that TC semantics is invalidated by the existence of the liar paradox. The naive T-schema (T) is incoherent and its Tarskian

cousin ($T_i$), which invokes a hierarchy of distinct languages, is useless for the purposes of natural-language semantics. Thus the very foundations of TC semantics fail.

$$\text{(T) } \Phi \text{ is true} \equiv \text{P.}$$

$$(\text{T}_i)\ \Phi \text{ is true}_i \equiv \text{P}_j,\ \text{ for i} < \text{j.}$$

Attitudinal semantics, on the other hand, does not rely on any notion of truth at all. It can, however, consistently describe our use of the predicate "true" by means of ($T_\psi$).

$$(\text{T}_\psi)\ \text{S thinks ``}\Phi\text{ is true''} \equiv \text{S thinks that P.}$$

To summarize, Part One motivates, spells out, and defends the attitudinal framework, while Part Two applies it to neglected and otherwise unsolved problems. Before proceeding, however, I set forth some comparatively uncontroversial premises. The next section identifies the aims and scope of the theory of meaning, which I take to be ostensively defined by those working in the field. This follows as one corollary of my methodology, which is empirical and anti-foundationalist. In particular, I emphasize the fallibility of inquiry and thus make no claims for the correctness of my theory, only for its superiority to alternative accounts that are now prominently available. My approach therefore requires a prior understanding of what the alternative accounts are and what they claim, which are set forth in the last section of this chapter.

## 2. Ends and Means

In the following chapters I articulate, apply, and defend *a theory of linguistic meaning*. Before I do that, however, I want to clarify my aims by explaining just what I mean by this phrase.

First, what I propose is a *theory*. I make no claim about completeness or formal rigor, for my work is avowedly programmatic. It is for all of that a theory – a set of interlocking claims that purports to explain something.[1] Second, I advocate a theory of *linguistic* meaning – word meaning, sentence

[1] Katz & Fodor (1963: 170), Davidson (1973a: 68), and Devitt (1996: 4) characterize their own works as meta-theories or programs rather than as theories proper. But I question their distinctions in regard to both principle and practice. In practice, for instance, Davidson's own work rests on a plain theoretical component insofar as it invokes the success of the

meaning, utterance meaning, discourse meaning [the "non-natural" meaning of Grice (1957)]; I am not interested here in the meaning of evidence left behind at the scene of a crime, or in the meaning of dark clouds and distant thunder. Third, my interest is in *natural* language. If we arrive at a semantic theory adequate for formal calculi, but inapplicable to English, Swahili, Navaho, or any other natural language whatsoever, then our project will be worse than incomplete; it will be a non-starter.

The notion of a natural language raises neglected philosophical issues, for instance the problem of individuation. When you and I understand artificial languages like propositional logic, do we know them in addition to English, or do we know them as one fraction of our logicians' dialect of English? And is English one language that extends from the Middle Ages and into the future, from England to America, Australia, and India? My own take on the matter is atomistic: the complicated facts of dialect, sociolect, isogloss, etc. are just results of aggregate individual behavior. Though individual behavior is undoubtedly regulated by conceptions of the social norm, these conceptions operate in the individual (Chomsky 2000). I shall not argue these points, as my work does not rely on them, but I do register them as issues that merit more attention.

Finally, what is meaning? Unfortunately, a clean characterization cannot come until after its study matures (imagine Aristotle trying to define the boundaries of physics). Instead I will spend a few pages listing, in no particular order, some research areas that occupy the attention of those who regard their work as inquiries into meaning. Figuring out what meaning is and how it works involves figuring out what the following are and how they work.

- *Translation*. Texts – arrangements of one or more words in a context – translate across languages. Although multiple distinct translations are typically possible, and though none is necessarily perfect, translation exists insofar as it seems that at least one translation satisfies for any given purpose. For entry to the literature on translation, see Mauranen (2004), Hatim & Munday (2005), *The Translator*.
- *Intentionality*. Expressions usually appear to be *about* various objects, properties, actions, events, and states. Consider, for instance, the

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Tarskian treatment of quantification; and I shall myself propose analyses of specific kinds of construction. Specific analyses are impossible without a general analytic framework, while the analytic framework cannot be supported without specific analyses. Partly for this reason, theory and meta-theory – linguistics and the philosophy of language, if you will – are interdependent if not inseparable.

sentence “Jay wants to kiss Kay”: “Jay” is about Jay, “wants” is about presently wanting, “kiss” is about kissing, “Kay” is about Kay, and “Jay wants to kiss Kay” is about Jay presently wanting to kiss Kay. (“To”, however, is not about anything.) Intentionality is implicated in denotation, designation, reference, representation, and topicality (the topic, what the sentence is “mainly about”, tends to get expressed by the grammatical subject). Moreover, the notion of intentionality is used in our understanding of information and truth. For more on intentionality, see Kripke (1980), Fodor (1987), Stich & Warfield (1994), Clapin (2002); for more on topicality and focus, see Lambrecht (1994), Erteschik-Shir (1997).

- *Information and truth*. Language is used to convey information: declarative sentences are informative of the speaker’s beliefs (if sincere) and of the world (if true), imperatives are informative of the speaker’s desires (if serious) and of some subsequent state of the world (if obeyed), and interrogatives may be informative of the speaker’s ignorance and desire to acquire belief. The notion of information is sometimes understood in terms of reference and truth. For more on information, see Harris (1991); for more on truth-conditions, see §3 below.
- *Inference*. Truth in turn is sometimes used to define inference (though assertability is sometimes used for this purpose). Every declarative sentence entails a host of other sentences. For instance, “Jay kissed his (own) sister” entails:

  > Jay kissed someone; Someone kissed Jay’s sister; Someone kissed his own sister; Jay did something to his sister; Jay kissed his female sibling; Jay kissed a relative; Jay’s lips touched his sister; Jay touched his sister.

  In addition, non-declarative sentences may be said to have entailments too: the satisfaction of “Jay, kiss your sister!” entails the satisfaction of “Jay, kiss your sibling!” See §3.7.
- *Intensionality*. In some contexts, the substitution of co-referential terms preserves overall truth-value; in others, it does not. For example, “Oedipus wanted to marry Jocaste” does not entail “Oedipus wanted to marry his mother”. Thus, “Jocaste” and “Oedipus’s mother”, though extensionally identical, are intensionally distinct (Chaps. 3.2.2, 5.9xiv).
- *Productivity, systematicity, compositionality*. Speakers can produce novel sentences and listeners can comprehend them. In part this is because language is systematic, perhaps even compositional, in which case the meaning of a complex expression would be a function strictly

of the component meanings and their mode of combination. Just as important to productivity is the fact that natural-language lexicons are open-ended, allowing for neologisms due to imaginative coining, extending, stipulating, and so forth. The standard view accepts the principle of compositionality, and challenges to it can be found in Schiffer (1987: Chap. 8), Gaifman (1992: §iii), Cummins (1996), Pelletier (1994), Seuren (1998: 400), Jennings (2007); see also §3.6 below.

- *Thematic roles*. Grammar contributes meaning to sentences, as we've seen in the cases of topicality and compositionality. Grammar is sometimes held to assign agency to the subject and patience to the object: in "the lion ate the tiger", the lion is the doer and the tiger is the did-to. For the classic work on thematic roles, also known as "theta roles" or "abstract case", see Fillmore (1968), Jackendoff (1987), Wilkins (1988).
- *Illocutionary force*. A sentence may be uttered as an assertion, a question, a command, a request, etc. To distinguish these, Frege (1892) introduces the term "force", Austin (1962) recognizes its importance, and Sadock & Zwicky (1985) report on how force is grammaticized across languages. See too Searle (1969), Bach & Harnish (1979), Davidson (1979a), Vanderveken (1990, 2004), Tsohatzidis (1994), Alston (2000).
- *Lexical relations*. Words are related to each other by synonymy; hyponymy ("dog" is a hyponym of "animal"); meronymy ("paw" is a meronym of "dog"); various forms of opposition including antonymy, converseness, and reversion; and so forth (Cruse 1986, Fellbaum 1998). Such lexical relations may involve semantic fields (Lehrer 1974b, Lehrer & Kittay 1992) and may involve componential analysis (Katz & Fodor 1963, Tyler 1969, Nida 1975a, International Linguistics Department 1999).
- *Presupposition*. Proposition P semantically presupposes proposition Q iff the affirmation of P and the negation of P each entails the truth of Q. An example is "Kay kissed Jay", which presupposes that Kay exists insofar as "Kay kissed Jay" and "Kay did not kiss Jay" each entails that Kay exists. For more on presupposition, see Levinson (1983: Chap. 4), Beaver (2001).
- *Conversational implicature and impliciture*. When a letter of recommendation says only that so-and-so has beautiful handwriting, the letter *indicates* without actually *saying* that so-and-so's relevant qualifications are best left unmentioned. This follows from the Principle of Cooperation as described by Grice (1967). See also Bach (1994), Davis (1998), Levinson (2000), Carston (2002), Atlas (2005).

- *Indexicality*. Indexicals, named by C.S. Peirce, are also known as deictics (the Stoics), egocentric particulars (Russell), token reflexives (Reichenbach), and shifters (Jakobson). They are expressions whose reference is context-dependent, e.g. pronouns, demonstrative articles, and tense inflections. In English, *every* sentence is indexical, since every sentence refers to either the past, present, or future, as specified relative to the time of the sentence's utterance. For more on indexicals, see Fillmore (1997), Nunberg (1993), Diessel (1999), Simon & Wiese (2002) in linguistics, Clark (1992) in psychology, and Yourgrau (1990), Cresswell (1996), Perry (1979), Gross (2001), Corazza (2004) in philosophy.
- *Vagueness*. Words are rarely if ever fully determinate in their applicability. Scalar terms like "bald" are vague, in part because they do not in themselves specify a standard of comparison. Even "Larry is balder than Moe, but not bald in comparison to Curly", though determinate insofar as it may specify enough for us to judge the sentence true in the actual world, is indeterminate insofar as it still is questionable in some possible worlds. This is not only because "is" remains vague as to how long the present moment is understood as enduring, and "Larry" is vague too, but because vagueness is multi-dimensional. The applicability of "bald", for instance, depends not only on the number of hairs and their length, but also on the distribution of hair and the nature of the hair. For instance, if a man's pate is covered by synthetic fibers sewn into the scalp, should we call him bald or not? The answer, I think, is indeterminate; "bald" is vague in this regard, and its applicability depends on the context. For more on vagueness, see Ballmer & Pinkal (1983), Channell (1993), Williamson (1994), Keefe & Smith (1997), Keefe (2000), Saka (1998a: Chap. 5.3.1), Sorensen (2002), Beall (2003).
- *Ambiguity*. Any expression can be understood in multifarious and incompatible ways. Distinct readings may be generated by structural (syntactic) ambiguity, lexical ambiguity, polysemy, and pragmatic ambiguity stemming from, e.g., indexicals, implicature, and illocutionary intention (was a given expression used or mentioned? was it meant as a warning or a threat?) (Chap. 6).
- *Anomaly*. There is something funny about sentences like "Round colorless green ideas sleep furiously". According to some philosophers [e.g. Ryle (1938)], they commit category mistakes and are meaningless; according to some linguists [e.g. Chomsky (1965)], they violate selection restrictions and are ungrammatical; according to some, the ungrammatical amounts to the meaningless [Davidson

(1967: 21), (1970: 60)]; according to yet others, anomalous sentences are neither ungrammatical nor unsemantical but rather manifestly false and therefore, in typical contexts, unpragmatical [Saka (1998a: Chap. 3.2); cf. Erwin (1970)].

- *Prototypicality*. Many of our concepts seem to center on exemplars and ideal models independent of necessary-and-sufficient conditions. For instance, we associate "tiger" with stripedness, even though the possession of stripes is neither necessary nor sufficient for something to count as a tiger. Prototypes affect language use, language structure, and non-verbal cognition. See Austin (1940), Wittgenstein (1953) in philosophy, Lakoff (1987), Taylor (1995), Geeraerts (1997) in linguistics, and the interdisciplinary Tsohatzidis (1990).
- *Perspective*. The differential use of indexicals in direct and indirect discourse ("She said, 'I am happy' " vs. "She said that she was happy") reflects a difference in perspective (Clark 1974). Perspectival effects also appear with topicalization, with focus, and with contrastive stress ["The man in the monkey suit stole the bananas" vs. "It was the man in the monkey suit who stole the bananas"; Boer (1979), Stein & Wright (1995); in opaque vs. transparent ascriptions of belief (Fauconnier 1994); in negation asymmetry ("x is as tall as y" entails that the height of x = the height of y, whereas "x is not as tall as y" entails that the height of x < the height of y); in the difference between "the glass is half full" and "the glass is half empty"; in categorization judgments (Taylor & MacLaury 1995); and elsewhere (in St Petersburg, freezing point is called "melting point")].
- *Register*. Different social contexts call for different levels of linguistic style (e.g. "father" vs. "dad", "kiss" vs. "osculate"). Operative factors include politeness, occupation, intimacy, and genre. For sociolinguistic studies, see Hymes (1972), Brown & Levinson (1987), Chambers et al. (2001), Holmes & Meyerhoff (2003).
- *Figurative speech*. Metaphor and other figures of speech have been recognized as important in rhetoric and literary studies for many centuries, and in the current generation they have caught the attention of cognitive scientists. The importance of metaphor for cognitive science is argued in the groundbreaking Lakoff & Johnson (1980). See Kittay & Lehrer (1981) in linguistics, Gibbs (1994) and Jorgensen (1996) in psychology, Johnson (1981), MacCormac (1985) and Kittay (1987) in philosophy, and above all the interdisciplinary reader Ortony (1993).
- *Connotation*. Conversational implicature, register, and figurative meaning all contribute to what rhetoricians call connotation. [By this

I do not mean what the idiosyncratic J.S. Mill does, but what Frege (1892) means by “fragrance”, “coloring”, and “tone”.] Another kind of connotation is pejoration, discussed in Chapter 5.

- *Diachrony*. Lexical meaning changes over time, e.g. “bowl”, “bull”, “ball”, and “phallus” all derive from Proto-Indo-European “bhel”, ‘to blow or swell’. Furthermore, language is fundamentally neologistic: it is always possible to invent new terms and to stipulate new meanings for them. See Sweetser (1990), Geeraerts (1997), Traugott & Dasher (2002) in linguistics and Jennings (2004) in philosophy.

I have just listed some of the going concerns of meaning theorists. This is not to say that they must all be addressed by the correct and final theory of meaning. That would be impossible anyhow, since contradictory things have been said about each item on this list. The purported linguistic phenomena, it must be emphasized, are not indisputable. They reflect judgments informed by theory, judgments that might turn out to be in error. Some of the items on my list may easily be chimeras, to be disregarded in the end. Indeed, I regard intentionality as such. Other items are undoubtedly missing from the list, and will need to be added as research progresses. The items now on the list may easily belong to two or more independent theories – semantics proper and pragmatics, say, a distinction that is difficult and theory-laden (Turner 1999, Bianchi 2004, Szabo 2004). No, the significance of the list is that the items on it constitute the “empirical” point of departure for current theorizing.

Repeatedly now I have assumed post-positivist empiricism, and in the remainder of this section I will make this commitment of mine more explicit because it affects the course of my research. To me, state-of-the-art empiricism entails a number of more or less related views. To begin with, it deserves credit for recognizing and emphasizing:

(14) THEORY-LADENNESS. Every observation and intuition is modulated by background mental state (auxiliary beliefs and even desires and actions).[2]

This theory-ladenness is holistic in character:

(15) HOLISM. Any observation or principle taken from one intellectual domain may have epistemic bearing on another.

[2] Theory-laden (top-down) effects on the speed, accuracy, and content of both perception and judgment are abundantly established in the psychological literature, e.g. Warren & Warren (1970).

Holism allows me to follow the lead of Chomsky in supposing that empirical linguistic facts (performance) can best be explained as interaction effects of competence on the one hand and general psychology and biology and history and so forth on the other.

Holism also yields a criterion for deciding between rival theories. If theories $\theta_1$ and $\theta_2$ equally explain phenomenon $\Phi$, and if it turns out that $\theta_1$ also helps to explain something beyond $\Phi$ while $\theta_1$ does not, then $\theta_1$ is preferable to $\theta_2$, all else being equal. Most notably, it is a virtue to explain, on top of $\Phi$, why rival theorists believe as they do:

(16) CRITERION OF SECOND-ORDER PREFERENCE. If $\theta_1$ and $\theta_2$ equally explain a given phenomenon, and if $\theta_1$ also helps to explain why some theorists subscribe to $\theta_2$, but not vice versa, then $\theta_1$ is preferable to $\theta_2$.

This criterion, implicit e.g. in Neale (1999: 56), forges one connection I see between philosophy and cognitive science, namely that for every philosophical theory $\theta$ there must be a socio-psychological account of $\theta$'s fortunes.

Theory-ladenness and holism pave one path to:

(17) NON-FOUNDATIONALISM. We are all passengers on Neurath's Peircean ship. We must begin with our current conceptual resources and proceed from there.

In other words, we must reject the Plato-Cartesian project of starting from nowhere or of forging for ourselves a God's-eye point of view. Just as we cannot establish the existence of knowledge from first principles, we cannot, from first principles, discover the nature of meaning. This is one reason why I reject the aprioristic claim that semantics is the study of word-world relations, and instead emphasize the many features of language listed above that do not evidently have anything to do with intentionality or truth. Another reason for the rejection of a priori dogma stems from the intellectual modesty implied by (14, 15, 17) epitomized here:

(18) FALLIBILISM. Few if any beliefs are unrevisable.

In particular I shall reject the sheer dogma that the identification of meaning with truth-conditions is somehow beyond possible doubt.

Non-foundationalism, by reference to our currently situated understanding of reality, leads to:

(19) NATURALISM. Reality is a natural, causal order that is to be understood by the sciences.

By "the sciences", I hasten to add, I include both the natural and the human sciences, thus counting the physical, biological, behavioral, and social sciences, and some work in the humanities as well. Naturalism is not the same as reductive scientism but, rather, stands in contrast to the supernaturalism that is held by the bulk of the population. Wagner (1993) observes that such a notion of naturalism is uncontroversial and therefore uninteresting. Applied to philosophers, this observation is partly correct. But in general, wishful thinking, "the will to believe", and appeals to authority, tradition, and divination are all powerful determinants of deep and popular convictions. To deny their legitimacy is no trivial matter.

In addition, naturalism as I understand it precludes platonism and modal realism, and furthermore it lends support to:

(20) METHODOLOGICAL SOLIPSISM. Scientific psychology operates without reference to anything outside the causal powers of individual and subpersonal agents. Therefore meaning, insofar as it makes any difference to human beings, must be understood solipsistically.

The questions of modal irrealism and methodological solipsism are controversial [e.g. Fodor (1980), Stich (1986), Devitt (1996), Wilson (2004)]. I mention them not because I shall be making official use of them, but to acknowledge their role in some of my actual motivations.

Empiricist strictures entail neither behaviorism nor eliminativism. As a cognitive scientist and as a non-foundationalist who assumes current posits, I hold the hypothesis that the familiar mental idioms are acceptable – though as a fallibilist, I also emphasize that they are provisional:

(21) COGNITIVISM. Talk about beliefs and desires and other internal states is legitimate, if not as objective realities then at least as instrumental posits and at least for the time being.

Thesis (21) underwrites the competence/performance distinction, which is also supported by holism.

Naturalism, meaning scientific philosophy, is not only opposed to platonism, tolerant of cognitivism, and committed to the methodological solipsism that is implicit in the view that causality is local, it also prescribes rules of intellectual engagement. This is so because science is fundamentally a social institution premised on fallibilism and the proposition that two heads

are better than one. One's idea is more likely to be valuable if it takes into account the ideas of others; progress is made when old ideas are confirmed, jettisoned, or revised, *not* when old ideas are flat ignored. Granted, attending to all conceivable ideas is impossible, and it is usually wise to neglect the following: theories that are prima facie unrelated to the phenomena under study; theories that are relevant, but so implausible as to have no known proponents; theories that are relevant and seriously propounded, but only by cranks and crackpots (those outside the social institution of science, for whom lack of training and credentials, lack of research facilities, and lack of network contacts all give reason-based grounds for a priori suspicion); relevant, expertly championed theories that have been outmoded by new and uncontroversial developments; and relevant, expert, state-of-the-art theories that are privately or guardedly held against free discussion and honest criticism. Unless a condition such as the above holds, however, then if you are aware of a theory θ that purports to explain the phenomena under your study, you are obliged to address θ, whether to dispute errors, salvage half-truths, honor insight, or at least to flag a precedent. Again, this is true because science is a conversation, and it's a conversation because open dialog is our surest path toward the truth:

(22) SCIENCE AS DIALOG. Scientific reasoners, including genuinely naturalistic philosophers, attend to and respect the voices of others (at least within the limits sketched).

This point is worth emphasizing because my chapter on hate speech has repeatedly been criticized for addressing "dated" theories, namely those from 1981 by Grim, Stenner, and Taylor. The objection is not that these works have clearly been contradicted by subsequent research, for they have not. Rather the idea seems to be that, aside from a restricted number of canonical works, only the "hot" publications of the past few years matter; that indeed unreviewed and selectively distributed mimeographs merit more attention, if they are recent, than refereed and publicly available thinking that happens to be older. This attitude, though understandable inasmuch as human beings, including scholars, are moved by fad and fashion, is unreasonable. Grim's work may have appeared prior to the advent of, say, two-dimensional semantics; but unless two-dimensional semantics clearly solves Grim's problem, which it does not, then Grim's proposed solution remains in the running and deserves a hearing, other things being equal.

To repeat, intellectual virtue on the part of scholar S demands that S respect the judgments of others (not that S must think highly of others, but S must give others a conversational turn). As a corollary, scholars must

respect the judgments of others even when they believe that said judgments are worthless; any other policy is a kind of egocentricity, antithetical to the intersubjective ambitions of science. To criticize my honoring Donald Davidson and Brendan Gillon (Chaps. 5.1, 6.3), on the grounds that their positions are "obvious non-starters", is intellectually vicious.

Alongside my central commitment to naturalism, with its fallibilism and openness to competing ideas regardless of their date, I hold:

(23) EMPIRICISM. Theories are to be evaluated by their empirical adequacy.

As indicated, empiricism must be qualified by the recognition of theory-ladenness. This is why non-foundationalism is important, and why we must seek broad reflective equilibrium. That said, theories are best measured by their success. Because success is largely a comparative notion, *my primary objective is to develop a theory that works better than all rivals* in the sort of research areas listed. In order to set the stage for my project, therefore, I shall briefly review the major theories of meaning now available, and say a bit about their strengths and weaknesses.

## 3. The State of Play

In this section I shall conduct another quick tour of the theory of meaning, but this time instead of identifying question areas I will report on some of the leading approaches taken to providing answers. I do this for multiple reasons. First, my methodology, which justifies a given theory on the basis of how it fares in comparison to other available theories, demands an understanding of the prominent options on the market. Second, any given idea is better understood when set in contrast to others; hence the study of attitudinal semantics and the study of its rivals complement each other. Third, I wish to bring up, casually, a few problems for truth-conditionalism before commencing my sustained and more rigorous assault in Chapter 2.

Approaches to the theory of meaning mostly fall under the umbrella of truth-conditional semantics. Because TC semantics offers a powerful approach to meaning, giving accounts of compositionality and entailment that admit of formal rigor, it is widely assumed in cognitive science, and in philosophy it is the reigning paradigm. It has been called "obvious" (Davidson 1967: 24), "truistic . . . the merest platitude" (McDowell 1998: 319), "not merely theoretical" (Lycan 1984: 18), and true by definition (Lewis 1970, Cresswell 1985: 145); it is "received wisdom" (Dummett 1978: xxi), "the mainstream view" (Bezuidenhout 2002: 105), "the standard view"