

**Intentions and Truth:
A Case for Semantic Contextualism**

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Change the towels in the green bathroom.
 Dust the furniture.
 Draw the drapes when the sun comes in.
 Dress the chicken.

These are some of the instructions left for Amelia Bedelia, the title character of a popular children's book by Peggy Parish, on her first day working as a housekeeper. Ever an inventive interpreter of instructions, Amelia alters her boss's towels with a pair of scissors, sprinkles dusting powder all over his living room, sketches his drapes, and clothes his chicken in green overalls with matching socks. Many colorful adjectives could be used to describe Parish's heroine; the book jacket graciously characterizes her as "literal-minded."^{*}

In calling Amelia literal-minded, the book jacket implies that she follows her instructions in letter, though not in spirit. It seems to claim that Amelia did *change* the towels, *dust* the furniture, and so on. Amelia might justify her actions by pointing out that she followed her instructions literally. "You can't tell me I didn't change the towels," she might insist. "Look how different they are!" Surprisingly enough, the question of whether Amelia can be said to have fulfilled the demands in her instructions (literally or otherwise) opens up an important linguistic dispute.

No one can doubt that Amelia made some kind of serious error in interpreting her instructions. But among linguists, there exists a major difference of opinion about where Amelia's error lies. On one side of the debate are the *literalists*. A literalist would agree

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with Amelia's claim that her actions were *literally* in accordance with the written instructions she was given, even if they did not accord with her employer's intentions. A *contextualist*, on the other hand, would say that Amelia did not follow her instructions, because the instructions were given to her in a *context* that rendered them unambiguous. Contextualists put pressure on the very concept of literality. Whereas a literalist considers the sentence "Amelia changed the towels" unquestionably true, a contextualist would consider it true only in those unusual contexts that render the second sense of "change" sufficiently salient. According to contextualism, there is no "literal meaning" independent of the intentions of a speaker and the context of an utterance. Given the reasonable interpretations available within the context of housekeeping, Amelia did not follow the instructions on her list.

The consequences of this dispute reach much further than the future employment opportunities of a fictional domestic worker. The very constitution of truth is at stake. While literalists adhere to the linguistic orthodoxy that the truth of a sentence is independent of the communicative intentions of its utterer, contextualists challenge this traditional conception of truth, favoring a radical one that takes the speaker's manifest intentions into consideration when assessing a sentence's truth-conditional meaning. In claiming that a sentence's truth-conditions can depend on contextual facts outside of its literal form, contextualists are calling for a reinvention of semantics.

The distinction between the fields of semantics and pragmatics encodes the conventional literalist wisdom about the relationship between truth-conditions and contextual information. According to the literalist understanding of the semantics/pragmatics distinction, every well-formed sentence expresses a set of truth-

conditions. Competent speakers of a language are equipped to interpret novel sentences because they have access to a network of semantic rules, which they can apply to any syntactically well-formed string to generate its truth-conditional commitments (Szabó 6). The pragmatic content of an utterance exceeds its truth conditional content. It is typically conveyed using cues that are not lexical or syntactic (such as inflection or gesture).

Unlike semantic content, it may be influenced by the intentions of a speaker.

Consequently, whereas a sentence's semantic content may be understood through the application of rules, its pragmatic content can only be deciphered through the use of cognitive strategies and through attention to contextual information outside of the bare sentence, including all available indications of speakers' intentions. Although pragmatic content may enrich an utterance's meaning in important and interesting ways, literalist doctrine insists that it cannot contribute to the utterance's truth-conditional meaning.

Literalists are motivated to this position by the observation that non-lexical and non-syntactic cues can invert the meanings of even the most unambiguous sentences.

Consider the following:

1. Sam is a wonderful person.

Independently of context, sentence 1 seems to convey an unequivocally positive appraisal of Sam's character. Yet it can be uttered sarcastically and thereby be used to express the opposite meaning. The observation that emphasis and intonation can cause an innocent sentence to express such a discourteous sentiment might seem discouraging to those who hope to produce a predictive theory of meaning for human languages. But it also suggests an elegant solution: the theory should simply segregate the component of meaning that is encoded in the bare sentence from the component that is conveyed by the speaker in his idiosyncratic use of that sentence. Indeed, the secondary pragmatic meaning seems to rely

on a primary semantic meaning in sentences like 1. Thus, literalists hold that 1 *semantically* expresses positive feelings for Sam, even though a speaker may (with the help of pragmatic cues) utter sentence 1 in a way that makes manifest his intention to mock the sentiment his sentence semantically expresses, thereby *using* sentence 1 to denigrate Sam's character. Generally speaking, advocates of intention-independence as a criterion of semantic content would claim that the semantic component of a sentence's meaning is not susceptible to influence from any indications of what some particular speaker intends to accomplish by uttering that sentence in a particular manner and context.

Contextualism contests this strict division between semantics and pragmatics in claiming that truth-conditions (semantic meaning) can depend on speakers' manifest intentions (one form of pragmatic information). This claim entails that there cannot be a semantic module in the brain whose function is to determine a sentence's truth-conditions based on its bare syntactic structure. Neither can there be an academic discipline charged with the project of reconstructing that cognitive module's operations. Thus, contextualism poses a challenge to the literalist conception of the cognitive task of semantic decoding, and indeed, to the whole discipline of semantics.

It might seem that the literalist/contextualist debate is just a spat over definitions — the definitions of the words “truth” and “semantic,” perhaps. In what follows, I argue that it is not. I aim to demonstrate that the disagreement between literalists and contextualists is a substantive one. Siding with the contextualists, I will argue that the truth-conditions of an utterance are not independent of the intentions of the speaker who

utters it. I will also sketch some possible revisions to the traditional conception of semantics, which follow from my contextualist position.

In sections 1 and 2, I present the background for the debate between literalism and contextualism. Section 1 sets up the constraints on a linguistic concept of truth. I argue that the conception of truth used in linguistics must answer to native speakers' intuitions about their utterances' truth-conditional commitments. In section 2, I review some of the history of the literalist/contextualist debate, emphasizing the significance of the disputed relationship between truth-conditions and speakers' intentions. I describe minimalism, the moderate literalist position that most literalists today ascribe to, which this paper aims to refute.

Sections 3 through 6 survey linguistic and philosophical literature on communicative intentions and shared knowledge. Section 3 describes Grice's (1957) theory of primary intentions and Strawson's (1964) emendations to that theory. Section 4 explores Grice's account of the relationship between truth-conditions and speakers' extra-linguistic intentions. In section 5, I present Stalnaker's (2002) account of common belief and common ground. In section 6, I integrate Grice's model with Stalnacker's and use the combined model to interpret the results of a linguistic experiment. The models described in these sections will be used in later sections to articulate my objections to the literalist position.

Sections 7 and 8 make a case for contextualism. In section 7, I present four objections to the literalist picture of semantics. Section 8 integrates these objections and explains why they cannot be accommodated by literalism. Finally, in section 9, I explore the consequences of my view for the field of linguistics. I describe the contextualist

understanding of the charge of semantics, and suggest three ways that contextualism could change the study of semantics.

1. Truth-Conditions

Scuffles between literalists and contextualists have put pressure on the intuitive concept of truth. Literalists and contextualists generally agree that the truth-conditions of a sentence or utterance¹ are the circumstances that must obtain in order for that sentence to be true. To know the truth-conditions of a sentence is to know what the world must be like, and to know what it may not be like, if that sentence is to be considered true. To put the same point differently, the truth-conditions of a sentence are *entailed* by that sentence. The entailments of a sentence may be contrasted with its *implicatures*. An entailment of a sentence *S* is required to be true whenever *S* is true. Typically, an implicature is strongly suggested by the manner or context in which a sentence is phrased or uttered, but it may be denied (or *cancelled*) without contradiction. The *cancellation test* distinguishes between entailments and implicatures on the grounds that implicatures can be cancelled by a subsequent sentence without contradiction. For example, sentence 3 is entailed by sentence 2, whereas sentence 5 is merely an implicature of sentence 4, as demonstrated by the cancellation test.

2. Jordan has two red balloons.
3. Jordan has two balloons.
4. Sasha took out her keys and unlocked the door.
5. Sasha used her keys to unlock the door.

¹ Literalists ascribe truth-conditions to sentences or propositions and contextualists ascribe them to utterances. To avoid begging the question or employing cumbersome disjunctive phrases, I will use the word “sentence” to mean “sentences or utterances” in such contexts.

The cancellation test illustrates the difference between these sentence pairs. The negation of 5 (namely, sentence 7) can be uttered after 4 without contradiction, whereas the negation of 3 (namely, sentence 6) cannot be uttered after 2 without contradiction.

6. Jordan does not have two balloons.
7. Sasha did not use her keys to unlock the door.

Because 5 is cancelable, the cancellation test categorizes it as a (pragmatic) implicature of 4. Because 3 is not cancelable, it is classified as a (semantic) entailment of 2. The cancellation test helps to clarify the difference between truth-conditional meaning and other kinds of meaning, but it leaves plenty of room for scholarly disputation. Pulled by the needs of their theories, literalists and contextualists have sustained deep disagreements about contours of entailment and implicature, despite mutual acceptance of the cancellation test.

Proposed conceptions of entailment have varied in strength, from robust to flimsy. One particularly strong conception of truth-conditional knowledge was proposed by the early Wittgenstein, who required that each well-formed sentence be expressible as a logical formula of atomic propositions, which spelled out the disjunction of states of the universe in which the sentence's truth-conditions would obtain. At the opposite end of the spectrum are Davidson and his followers (see Davidson 2001, Borg (forthcoming), and Cappelen and Lepore 2005). For them, a *disquotational biconditional* (also called a *Tarskian T-sentence*) is sufficient to capture the truth-conditional content of a sentence. For example, a linguist in the Davidsonian tradition would explicate sentence 2 ("Jordan has two red balloons") with the following disquotational biconditional (where *s* uniquely identifies the speaker, *t* the time of utterance, *p* the place of utterance and *l* the language used): The sentence "Jordan has two red balloons," as uttered by *s* at *t* at *p* in *l*, is true if

and only if Jordan has two red balloons. The same goes for sentences containing indexicals: “He believes that” as uttered by *s* at *t* at *p* in *l*, is true if and only if he believes that (Davidson 165). Never mind that we have no idea who “he” is or what he believes; as long as we can give a biconditional of this form (and can uniquely specify the speaker, the language, and the time and place of utterance), we know all there is to know about the truth-conditional commitments the speaker has made with this sentence.

Research on the early Wittgensteinian or the Davidsonian conceptions of truth-conditional meaning may turn up interesting philosophical discoveries. I do not mean to impugn either of these research programs out-of-hand. But insofar as the field of linguistics aims to investigate the human language faculty, it must stay in touch with the abilities of competent speakers, and rule out all models of linguistic knowledge that cannot plausibly represent those speakers’ knowledge. That means excluding conceptions of meaning like the early-Wittgensteinian model, which demands more knowledge from speakers than they could possibly have, and also exclude any conceptions like Davidson’s, which fail to capture the knowledge that speakers do have when they utter a sentence.

The early Wittgensteinian model must be rejected because it requires too much from speakers. According to the early Wittgenstein, ordinary propositions express detailed claims about the physical states of the world, down to the level of atomic propositions (extremely simple propositions that are logically independent of each other). It follows that a speaker is entitled to assert a propositional claim only if she can confirm that the world is physically configured in one of the ways that the proposition requires. Yet we pre-theoretically believe that seven-year-old speakers of English can successfully

assert the sentence “copper is a metal,” even without knowing (and hence without having asserted) anything about the atomic properties of copper or the conductivity of metals.

Because it sets the truth-conditional bar too high, the Wittgensteinian conception of truth-conditional knowledge is unacceptable.

The Davidsonian conception is also unacceptable. No native speaker of English would grant that her knowledge of the truth-conditional meaning of sentence 8 is summed up by 9.

8. It’s 5:22 p.m.

9. “It’s 5:22 p.m.” is true if and only if it’s 5:22 p.m.

She knows a lot more about 8 — for example, that (at least in the most easily-imagined contexts) it entails 10 and 11.

10. It was 5:21 p.m. one minute ago.

11. It is 4:22 p.m. in St. Louis.

A successful account of the truth-conditional commitments of sentences would have to identify 10 and 11 as entailments of 8.²

If our theories are to do justice to the semantic intuitions of native speakers, we must use a conception of truth-conditions that is more concrete than Davidson’s but less concrete than Wittgenstein’s. The truth-conditions expressed by a declarative sentence

² An adherent to Davidson’s account of truth-conditionality might claim that the disquotational biconditional can meet this requirement. Davidson considers the clause on the right side of the disquotational biconditional to be given in a metalanguage whose meaningfulness is presupposed. Perhaps, then, 10 and 11 can be shown to follow from 8 via the explication given in 9. The argument for this claim would have to be that the metalanguage propositions expressed by 10 and 11 are entailed by the metalanguage expression on the right side of 9’s biconditional. This understanding of Davidson’s theory avoids my objection, but at great cost. If the implications of metalanguage expressions are taken as given by Davidson’s theory, then the theory fails to explicate the mechanism by which 8 entails 10 and 11. Rather than account for the meanings of expressions in the object language, it pushes the problem into the metalanguage and proclaims it solved by assumption. On this understanding, Davidson’s theory does not even try to offer a linguistic account for the truth-conditions that a native speaker of English commits to when he utters sentence 8. As noted above, such a theory may be useful for philosophers, but it an inappropriate foundation for the linguistic project.

must amount to whatever truths about the world a native speaker is committing to by uttering the sentence,³ or whatever would license us to make the inferences that follow logically from her utterance. With these constraints in mind, let us turn our eyes to the historical development of the literalist school.

2. Toward a Minimalist Literalism

The history of the literalist school of semantics describes an evolving attempt to explicate the process by which the linguistic faculty extracts truth-conditional commitments from sentences without relying on contextual information. Literalism's earliest adherents (whom Recanati (2005) dubs *proto-literalists*) were philosophers who denied that context contributes anything at all to the truth-conditional content of a sentence (172). Their extreme position met with an unassailable difficulty in accounting for the semantic contribution of indexical terms (such as “I,” “you,” “here,” and “now”) — a challenge which proto-literalists were able to ignore for a while because they were not interested in natural languages (*ibid*).

As linguistics emerged as a field whose primary aim was to account for the human linguistic faculty, literalist linguists repudiated the stringent proto-literalist position and formulated increasingly moderate literalist positions. The proto-literalist school was succeeded by *eternalism*. Eternalists acknowledged the existence of indexical expressions whose referents could not be identified in the absence of contextual information, but tried to brush these and other context-sensitive expressions under the

³ Of course, the speaker of a sentence is responsible for its implicatures, and not just its truth-conditional content. In defending this criterion of theory-selection, I am assuming that native informants are capable of producing judgments that distinguish between entailments and implicatures, which slice more finely than the cancellation test does. This assumption is not as implausible as it might initially seem — particularly if our native informants have experienced fine print and legal loopholes.

rug. Eternalism delineated two classes of sentences: context-bound sentences, whose truth-conditional content is contingent on the context in which they are uttered, and eternal sentences, whose truth-conditional content is the same no matter when or where they are uttered.⁴ Sayward (1968) illustrates this contrast, offering 12, 13 and 14 as examples of eternal sentences and 15, 16 and 17 as examples of context-bound sentences:

- 12. Copper is a metal.
- 13. Two is a prime number.
- 14. The thirty-sixth President of the United States is a Texan.
- 15. It is a metal.
- 16. It is prime.
- 17. Johnson is a Texan.

Eternalists endorsed the *eternalization principle*: the claim that every context-bound sentence could be rewritten as an eternal sentence without changing its truth-conditional content (Recanati 172). To eternalize a context-bound sentence, one must simply replace each of the sentence's indexical terms with a non-indexical term that gives an equivalent semantic contribution, thereby transforming a sentence like 15 into a sentence like 12 (see Quine 1960, 208).

An examination of Sayward's examples betrays some of the deficiencies that led literalists to abandon eternalism. It is no accident that Sayward's examples of eternal sentences seem most convincingly eternal when contrasted with their context-bound sisters, and vice versa. Sentences 14 and 17 seem particularly susceptible to this contrast effect. If 14 were contrasted with 18, we would probably classify it as a context-bound sentence. If 17 were contrasted with 19, we would classify it as an eternal sentence.

⁴ Grice (1969) articulates a similar distinction. Grice contrasts timeless meanings, applied timeless meanings, utterance-type occasion-meanings and utterers' occasion-meanings (149).

18. The thirty-sixth President of the United States of America is legally a resident of the state of Texas.

19. He is a Texan.

The same can be said of the other eternal sentences Sayward offers. If sentence 13 were contrasted with 20, then 13 would suddenly seem to be context-bound.

20. The answer to problem number two in the problem set assigned by Prof. Grinstead on 15 September 2007 A.D. is a prime number.

Philosophical responses to Quine's Word and Object (an important eternalist treatise) made the eternalization principle seem increasingly implausible. For example, Sayward invites his readers to consider sentences 21 and 22.

21. It is 4:30 p.m.

22. It is raining.

What eternal sentences are truth-functionally equivalent to these? *Prima facie*, one might suggest something like 23 as the eternal sentence corresponding to 21.

23. It is 4:30 p.m., March 1, 1967 in Lincoln, Nebraska at 4:30 p.m., March 1, 1967, in Lincoln, Nebraska.

But 23 fails to capture 21's propositional content because it is tautological, whereas 21 is only contingently true (Sayward 538). Sentence 24 is a likelier candidate.

24. The time of *S*'s last utterance on March 1, 1967 was 4:30 in Lincoln, Nebraska. [Where *S* abbreviates some context-free expression that uniquely identifies the speaker.]

Yet 24 also fails to express 21's propositional content. It is contingent on facts that 21 is not contingent on, namely, that "It is 4:30 p.m." was the speaker's last utterance on

March 1, 1967.⁵ It is not clear that any sentence can be constructed that would, in every context, express the truth-conditional content that 21 expresses when it is used in some particular context.

Sentence 22 raises additional difficulties for the eternalization principle. It seems to be easily paraphrased as 25, but this paraphrasing proves inadequate to capture the claim made by a speaker who utters 25 without knowing where he is or what time it is.

25. It is raining at time t place p . [Where t and p are replaced by expressions that uniquely refer to time and place of the utterance.]

Sayward imagines a man who falls asleep on a bus and is woken up when a blind fellow-passenger asks him what the weather is like. The speaker's assertion of 22 has the same truth-value as 25, but since the speaker does not know the time or place of his utterance, he cannot be said to assert 25 (Sayward, 539). To put the point differently, fluent speakers of English understand what 22 means and (given information about the weather) can judge whether utterances of 22 are true or false even without knowing the time and place of the utterance. Thus, even if 25 is an eternal sentence that corresponds to 22, it does not seem to play an important role in speakers' linguistic abilities with regard to 22's truth-conditional meaning. Observations like these,⁶ along with an interest in the details of how speakers decode the semantic content of utterances, led many linguists to abandon eternalism.

⁵ Note that context could rescue 24 from this contingency. If 24 were uttered *in place* of 21, the requirement that it be the speaker's last utterance on that date would be trivially fulfilled at the time of interpretation. Unfortunately, this move is unavailable to the eternalist, since sentence 24 would then cease to express its propositional content eternally.

⁶ These two objections are illustrative but by no means exhaustive of the set of concerns that led the discipline to abandon its commitment to the eternalization principle. For other objections, see Moser (1984) and Thomson (1969).

Along with proto-literalism, eternalism has now fallen from grace (Recanati 173). When the eternalization principle was broadly discredited, many literalists took up the battle-cry of *conventionalism* (ibid). Conventionalists conceived of the literalist/contextualist debate in different terms than their intellectual progenitors. They did not deny that contextual information plays a role in fixing the truth-conditions of a sentence. They did not require that contextual expressions be eliminable. They did, however, fiercely resist the notion that the speaker's *goals* or *state of mind* at the time of utterance may contribute to the sentence's truth-conditions. Conventionalists claimed that the rules of the language fully supply the truth-conditions of each sentence without consideration for the speaker's aims and intentions in uttering that sentence.

Today, conventionalism has also gone the way of proto-literalism and eternalism. Although conventionalism might have offered its adherents sufficient resources with which to disambiguate the referents of terms like "I" and "now,"⁷ it left them ill-equipped to deal with demonstrative expressions like "this." Demonstrative expressions refer to an object which is demonstrated (with, say, a gesture) or which for some other reason is most salient in the context of the utterance. Hence, any account of the referents of demonstratives will rely on the notions of demonstration or salience. But demonstration and salience are "pragmatic notions in disguise" (Recanati 174). They stand in for a certain attentive attitude that the addressee has toward a certain set of objects — an attitude which she has because the speaker has somehow made overt his intention to induce that attentiveness in her (whether by gesturing or otherwise demonstrating the

⁷ In fact, Recanati calls doubt on the possibility of accounting for "now" within the conventionalist paradigm, since the span of time that counts as the time of utterance varies from context to context. See section 7 for more on this objection.

referent).⁸ Hence, conventionalism cannot explain how addressees manage to identify the referents of demonstrative expressions.

Today, the dominant literalist theory is *minimalism*. Minimalists accept that the speaker's meaning may contribute to a sentence's truth-conditions, but only when the speaker's contribution is mediated by some linguistic convention. Minimalists postulate that certain expressions (like "this") have a semantic feature that opens up a slot to be filled in by pragmatics. For some expressions, such as demonstratives, that slot may even be filled by information that includes the speaker's or addressee's intentions. Nevertheless, the so-called pragmatic intrusion that minimalists accept is highly regulated. Only when an expression semantically encodes a pragmatic slot does the pragmatic module kick in and assign a value based on speakers' intentions (or other contextual clues). Because they strictly delimit the intrusion of pragmatic information into the deciphering of truth-conditional content and thereby subordinate pragmatics to semantics, minimalists stand firmly in literalist territory.

Contextualist stands opposite the literalist encampments on this battlefield. Whereas literalism subordinates the intentions of the speaker to the linguistically-encoded content of the utterance, contextualism privileges the speech-act as the primary bearer of meaning (Recanati 172). Like literalism, contextualism is a broad category that houses several camps, some of which are more radical than others. The most radical contextualists are the *meaning eliminativists*⁹ (Recanati 188). Meaning eliminativists deny out-of-hand the existence of linguistically-coded contributions to meaning, leaving

⁸ See section 3 for more on mutually-recognized intentions.

⁹ It is not clear which theorists, if any, take this radical contextualist position. Recanati identifies Wittgenstein and Austin as its prominent proponents, but because neither of them ever primarily engaged in semantics/pragmatics boundary disputes, a reading that sets them as exponents of a highly radical view on this conflict seems highly uncharitable.

the contextual senses that an expression has had on previous occasions of use as the only basis from which we may understand an expression's meaning on a new occasion of use. Less-radical contextualists posit an intermediate entity (linguistic meaning), which mediates between previous uses and the present use of an expression type. But for meaning eliminativists, there is no meaning that belongs to an expression type, which can be abstracted from past uses and modulated to future uses. Instead, there is only a process of "abstraction-modulation," which synthesizes previous uses of an expression and outputs a contextual meaning of the present usage of the expression (Recanati 190).

Although important and interesting disputes exist among the more moderate contextualist positions, they are mostly immaterial to this investigation. All contextualist positions hold that the truth-conditions of an utterance can depend in part on the intention of the speaker, and except for meaning eliminativism, all contextualist positions acknowledge that words and structures also have some semantic contribution. Any variety of contextualism that meets these two criteria would be compatible with the argument I make here.

In the sections that follow (sections 3 through 5) I describe several models of speakers' intentions and mutual knowledge that I will later use (in sections 6 and 7) to probe the relationship between truth-conditions and speakers' intentions. My defense of contextualism targets the minimalist claim that contextual contributions to truth-conditional content are mediated by semantically-coded slots. I argue that contextual indications of speakers' intentions shape the truth-conditional meanings of expressions in so many varied and subtle ways that no set of semantically-coded slots can reasonably be charged with the task of regulating their contributions.

3. Primary Intentions and Non-Natural Meaning

Grice (1957) establishes that a speaker must have a complicated set of intentions if we are to rightly describe her as meaning anything by an utterance: she must intend for her addressee to react to her utterance in a certain way, for him to recognize that she had that intention, and for his recognition of her intention *itself* to supply a reason for him to react that way. Strawson (1964) adds that an addressee must correctly identify at least some of those intentions if he is to understand the meaning of the speaker's utterance. Beyond these *primary* intentions that Grice describes lie *secondary* intentions — the larger projects and purposes in which the speaker and addressee are engaged, which give the speaker a reason to say something in the first place.

The following three sections describe the theoretical equipment that I will later use to explore the relationship between speakers' secondary intentions and the truth-conditions of their utterances. This section details Grice's and Strawson's accounts of primary intentions. Section 4 describes Grice's account of secondary intentions and his view of the relationship between secondary intentions and truth-conditions. Section 5 presents Stalnaker's formal account of common belief and common ground.

Grice (1957) distinguishes between a sense of the word "meaning" that he calls natural and one that he calls non-natural. The natural sense of "meaning" is the one exemplified by sentences like 26 and 27 below; the non-natural sense is used in sentences 28 and 29 (Grice 1957, 377–8).

26. Those spots mean measles.

27. The recent budget means that we shall have a hard year.

28. Those three rings on the bell (of the bus) mean that the "bus is full."

29. That remark, “Smith couldn’t get on without his trouble and strife,” meant that Smith found his wife indispensable.

To distinguish those signs which merely *get someone to think* something or another from communicative acts that count as *telling* her that thing, Grice investigates the features of an utterance that make it appropriate for us to speak of its having a non-natural meaning.¹⁰ He claims that the difference between the two types of meaning is a matter of the speaker having a certain recursively-formed intention: the primary intention. Grice writes, “ ‘*S* meant_{NN} something by *x*’ is roughly equivalent to ‘*S* uttered *x* with the intention of inducing a belief by means of the recognition of this intention’ ” —(384).¹¹ In other words,

S must intend to induce by *x* a belief in an audience, and he must also intend his utterance to be recognized as so intended. But these intentions are not independent; the recognition is intended by *S* to play its part in inducing the belief. (Grice 1957, 383)

Grice is using “utterance” in a very broad sense here. The utterance in question need not be verbal at all. According to his criterion, actions like gesturing, miming, arranging objects while another person watches or giving someone a meaningful look could all count as non-naturally meaningful. But by requiring the transparent, recursive intention described here, Grice rules out actions like the arranging of evidence to frame someone for a crime as having a non-natural meaning (382). If the speaker (or utterer, or actor) does not intend for the addressee to recognize the communicative intention behind her action, then her action is not non-naturally meaningful.

¹⁰ Hereafter, I use “meaning” to denote Grice’s non-natural meaning.

¹¹ Grice used “A” instead of “S,” but for the sake of clarity I will use Strawson’s abbreviations throughout this paper, substituting *S* for speaker and *A* for addressee.

It may be worth noting that Grice presents the requirement for non-natural meaning as a single recursive intention. Strawson (1964) paraphrases Grice's argument non-recursively, describing the Gricean primary intention as a constellation of three different intentions:

S nonnaturally means something by an utterance *x* if *S* intends (*i*₁) to produce by uttering *x* a certain response (*r*) in an audience *A* and intends (*i*₂) that *A* shall recognize *S*'s intention (*i*₁) and intends (*i*₃) that this recognition on the part of *A* of *S*'s intention (*i*₁) shall function as *A*'s reason, or part of his reason, for his response *r*.¹² (Strawson 1964, 446)

Strawson points out that these three intentions would not be sufficient for *S* to mean something by his utterance. Suppose, for instance, that *S* is arranging evidence in order to convince *A* of some belief *p*, knowing that *A* was watching him from a hiding place. Suppose also that *A* thought that *S* did not know that he was hiding, and that *S* knew that *A* believed himself to be hidden. This situation, Strawson explains, would satisfy the three intentions described above as long as *S* knew that *A* trusted him and thus that for *A*, the knowledge that *S* wanted *A* to believe *p* was itself a reason to believe *p*. Yet "this is clearly not a case of attempted *communication* in the sense which (I think it is fair to assume) Grice is seeking to elucidate" (Strawson 447). Strawson concludes that

[*S*] should not only intend *A* to recognize his intention to get *A* to think that *p*, but... he should also *intend A to recognize his intention to get A to recognize his intention to get A to think that p*, (Strawson 446)

which is to say that *S* must intend (*i*₄) "that *A* should recognize his intention (*i*₂)" (ibid).

Strawson notes that although the speaker must possess the intention *i*₄ for his utterance to have a meaning, even his possession of this intention (along with the other three) does not

¹² In the context of an investigation that relies on the distinction between primary and secondary intentions, it is important to clarify that Strawson's "response *r*" consists only in understanding the meaning conveyed by *S*'s utterance *x*, and not in choosing any course of action as a consequence of that understanding. Hence Strawson, like Grice, is explicating only *primary* intentions, not *secondary* intentions. See section 4 for more on secondary intentions.

guarantee that his utterance will have a meaning. In other words, Strawson's set of intentions i_{1-4} is necessary but not sufficient for an utterance to have a meaning. On the other hand, the single, infinitely recursive intention that Grice described is probably sufficient for the utterance to have a meaning (at least as far as the intentional component of communication goes), but Grice has not demonstrated that an infinite recursion of intentions is a necessary component of meaning.

Luckily, this dispute is immaterial to my argument. Both descriptions of primary intentions satisfactorily distinguish natural from non-natural meaning. Furthermore, both descriptions require that a speaker and addressee mutually recognize the speaker's primary intention to convey some particular meaning for a communicative act to be successfully executed.

4. Secondary Intentions

Grice distinguishes the *primary* intention of a speaker (the intention to convey a message by means of the recognition of this intention) from any other intentions that may stand behind her utterance, which I have called *secondary* intentions (Grice, 386). Grice acknowledges that speaker's intention to convey some message may very well be nested in a complex web of intentions. Perhaps she wishes to exert some influence over the addressee's actions or to cause him to make some set of inferences. Although his theory of non-natural meaning acknowledges the significance of speakers' intentions, Grice explicitly endorses the literalist position and argues that secondary intentions cannot affect the meaning of an expression (386). According to Grice's theory, the existence of a primary intention gives an utterance non-natural meaning, and the detection of that

primary intention by an addressee makes the utterance successful, but the existence and content of secondary intentions are wholly irrelevant to the meaning of the utterance.

In defense of this claim, Grice points out that someone can inform another person of some fact F , in the hope that, once the listener comes to believe that F , she will react by performing some action P . But the speaker's desire that the listener do P is not part of the meaning of his utterance. That desire is merely the speaker's personal motive for uttering a non-naturally meaningful expression. Only his primary intention (to convey F to the addressee by means of the addressee's recognition of that very intention) is relevant to the meaning of his utterance. The secondary intention — the intention that the addressee respond by performing P — “cannot be regarded as relevant to the meaning_{NN} of my utterance” (Grice, 386).

It is clear enough that a secondary intention that a speaker has cannot (successfully) contribute to the meaning of her utterance if the addressee doesn't know that the speaker has that secondary intention. Recall from section 3 that a speaker's primary intention is, by definition, known to the addressee. In the situation Grice describes, the speaker intends for the addressee to come to believe that F by means of her recognition of his intention that she believe that F . It is possible for all of this intention-recognition to happen successfully without the addressee ever knowing that the speaker has an ulterior motive in informing her that F . If she never finds out about his secondary intention that she do P , surely she cannot *use* a knowledge of his secondary intention to decode the meaning of his utterance. If the speaker's secondary intention affected the meaning of his expression, we would be forced to conclude that she is unable to understand what he is telling her. That conclusion is absurd.

Nevertheless, it does not follow that a speaker's secondary intentions can never affect the meaning of an expression. What about those secondary intentions that the addressee does know about? Can those secondary intentions play a role in determining the meaning of an utterance? Grice admits that they can:

In cases where there is doubt, say, about which of two or more things an utterer intends to convey, we tend to refer to the context (linguistic or otherwise) of the utterance and ask which of the alternatives would be relevant to other things he is saying or doing, or which [primary] intention in a particular situation would fit in with some [secondary] purpose he obviously has. (Grice 1964, 387)

Grice offers the example of a firefighter who asks for a "pump." Because of the pragmatic cues available to her addressee, she would naturally be understood to be asking for a fire pump and not, say, a bicycle pump or a high-heeled shoe (ibid).¹³

Strawson notes that an addressee correctly understands an utterance only if he takes the speaker to have "*the* complex intention of the (i_2) form which S does have," and not some other complex intention of the (i_2) form (448). (Recall from section 3 that in Stalnacker's model, a speaker's (i_2) intention is her intention that the addressee recognize her (i_1) intention to elicit some particular response in him by producing a particular utterance.) This amounts to saying that the speaker's (i_4) intention — her intention that the addressee identify her (i_2) intention — must be fulfilled if we are to say that the addressee correctly understands the utterance (ibid). In the case of the firefighter, the addressee needs to use his knowledge of the firefighter's secondary intentions to infer the content of the firefighter's primary intentions. Were he not to consider the pragmatic

¹³ This concession may be consistent with Grice's espoused literalism, but only if the addressee's successful decoding of the firefighter's request is a result of pragmatic processes that operate independently of the truth-conditional content of the request.

clues given by the circumstances the firefighter is in, the addressee would be liable to misunderstand the firefighter's request.

5. Common Belief and Common Ground

Stalnaker (2002) observes the relationship between primary and secondary intentions and connects this idea with the concept of common ground:

When speakers mean things, they act with the expectation that their intentions to communicate are mutually recognized. This idea leads naturally to a notion of common ground — the mutually recognized shared information in a situation in which an act of trying to communicate takes place. (Stalnaker 2002, 387)

To clarify the kind of reasoning which would be necessary to support inferences from mutual recognition of intentions, Stalnaker develops formal models of common belief and common ground. He defines common belief as “the beliefs that [the parties to a conversation] share, and that they recognize that they share” (704). In technical terms, “a proposition ϕ is common belief of a group of believers if and only if all in the group believe that ϕ , all believe that all believe it, all believe that all believe that all believe it, etc.” (ibid).¹⁴ Common ground is much like common belief, but more inclusive: it consists of all propositions that all members in a group “*accept* (for the purpose of the conversation)... [and which] all believe that all accept... and all *believe* that all *believe* that all accept... etc.” (716). Throughout most of his article, Stalnaker deals with the simplified case where the common ground in a conversation just is common belief; however, he recognizes that in some conversations, parties may *accept* propositions that they do not *believe* are true.

¹⁴ Stalnaker attributes this definition to Lewis (1969).

For simplicity's sake, Stalnaker treats individual beliefs as amenable both to positive introspection (so that if S believes x , then S necessarily believes that she believes x) and to negative introspection (so that, if S does not believe x , then S necessarily believes that she does not believe x ; 706).¹⁵ It follows that common belief must be open to positive introspection but not to negative introspection. That is, whenever all members of a group share a belief ϕ , *and* all believe that they share the belief that ϕ , then this fact itself will be believed by all members of the group. Each member of the group will believe — rightly — that it is common belief that ϕ is common belief. Therefore, ϕ may be common belief in a group G only if all members believe it to be common belief (Stalnaker, 707). But the converse is not true. In a case where some members of a group believe that some belief ϕ is *not* shared by all members of that group, other group members might still *think* (wrongly) that each of their fellows believes that ϕ is believed by all. The fact that ϕ is not common belief need not itself be common belief. These patterns turn out to have interesting implications for presupposition.

Presuppositions are those facts about the world that speakers take for granted in structuring their utterances. Stalnaker identifies “the presuppositions of an individual speaker... with what the speaker believes to be common belief” (ibid).¹⁶ He finds that presuppositions, like common beliefs, are open to positive but not negative introspection (708). That is, if all members of a group presuppose that ϕ , each speaker will believe that

¹⁵ Although there are aberrant circumstances in which we might like to describe someone as believing something that she does not realize she believes, Stalnaker's simplifying assumption is correct for most beliefs and most people.

¹⁶ There is quite a bit to be said about the time at which the speaker believes that presupposed propositions will be common belief. Stalnaker emphasizes that the relevant moment is not while the speaker is planning the utterance; rather, the speaker predicts that they will be common belief at “a (perhaps somewhat idealized) point after the utterance event has taken place, but before it has been accepted or rejected” (709, footnote 14).

it is mutually presupposed that ϕ , but the fact that it is not mutually presupposed that ϕ does not guarantee that *no* group member mistakenly believes that it *is* mutually presupposed that ϕ . In such a situation, one speaker might produce an utterance that requires the presupposition that ϕ , not knowing that her fellow group members do not share that presupposition.

The susceptibility of common beliefs to positive introspection and their insusceptibility to negative introspection generate interesting patterns in presupposition. Because every common belief ϕ is accompanied by a common belief that ϕ is common belief, it is impossible for one member of a conversation to be unaware of a common belief that exists in a group.¹⁷ If in the course of conversation, one member of a group does not presuppose some fact ψ , then his failure to presuppose ψ informs all group members that ψ is not common belief in that group. On the other hand, it *is* possible for a member of a group to assume that something is common belief when in fact it is not. Hence, speakers can (and often do) conversationally presuppose facts that are not common belief among all participants in the conversation. This type of mismatch gives rise to the phenomenon of *presupposition accommodation*.

This phenomenon is familiar from Lewis (1979). In that article, Lewis investigates the conversational effects of a mismatch between a speaker's beliefs about the common ground and the actual common ground. Lewis was inspired to approach this task by the observation that it is harder than one might expect to construct an example of

¹⁷ It is by no means impossible for one member of a group to be unaware of the fact that all members of a group share some belief. But it *is* impossible for one member of a group to be unaware of the fact that all members of the group share some belief, all believe that they share it, all believe that all believe that they share it, and so on.

such a mismatch — a speech situation in which one speaker presupposes some belief ϕ which is not actually common belief:

Say something that requires a missing presupposition, and straightaway that presupposition springs into existence, making what you said acceptable after all. (Or at least, that is what happens if your conversational partners tacitly acquiesce....) (Lewis 1979, 339)

In cases like these, the speaker is apparently mistaken about the common ground, but those propositions which the speaker believes are common ground become part of the common ground by virtue of the speaker's having overtly presumed that they were.

Stalnaker's model gives a nuanced explanation of presupposition accommodation. He explains that each utterance in a conversation is a *manifest event*: “an event that, when it occurs, is mutually recognized to have occurred” (708–9). The occurrence of a manifest event is automatically included in the common belief of everyone present. Because every utterance is a manifest event, and because a speaker will only presuppose those facts that she believes are common belief, it follows that when a speaker S produces an utterance that presupposes ϕ , the fact that S holds ϕ to be common belief will itself become common belief. And if S is in a position to know that ϕ is true and her addressee has no supervening reason to doubt that ϕ is true, then S 's belief that ϕ will be common belief becomes a sort of self-fulfilling prophesy. The addressee will come to believe ϕ because he knows that S believes ϕ . Thus, S 's assumption that ϕ is common belief becomes a correct assumption after all, simply by virtue of her having manifestly presumed it (Stalnaker, 710). The exploitation by speakers of the divergence between their presuppositions and their beliefs about the state of common beliefs at the moment of

utterance “reflects a general pattern essential to a practice of speech,” which, according to Stalnaker, is intimately connected to conversational implicature (704).

Many of the most interesting observations that have emerged from the study of presupposition accommodation have come from contexts where speakers *accept* propositions that they do not *believe*. To account for presuppositions in circumstances like these, we must move beyond Stalnaker’s model of common *belief* to his more nuanced model of common ground:

It is common ground that ϕ in a group if all members *accept* (for the purpose of the conversation) that ϕ , and all *believe* that all accept that ϕ , and all *believe* that all *believe* that all accept that ϕ , etc.

(Stalnaker 2002, 716)

Speakers usually accept only the propositions that they believe are true, and insofar as they do so, common belief and common ground are indistinguishable. But speakers may have various reasons to accept propositions that they do not actually believe. Donnellan (1966) supplies one oft-cited illustration. He describes a pair of bar-goers gossiping about a fellow who happens to be drinking water out of a martini glass. Even if one or both conversational participants realize that the man is drinking water, they might refer to him as “the man drinking a martini” and thereby accommodate the presupposition that he is drinking a martini. Lewis (1979) describes another situation in which common ground might differ from common belief: a conversation in which the participants are trying to demonstrate the vulnerability of a reprocessing plant by constructing a plan to break into the plant and steal plutonium, which neither conversational participant intends to carry out (357). For the purposes of their discussion, they accept propositions like “I’ll shoot the guard while you smash the floodlights” although neither believes that these propositions are true, neither believes that the other believes that they are true, and so on

(ibid). In fact, the acceptance of ostensibly false propositions can be useful in a number of ways. In accepting a false proposition into the common ground,

one may simplify or idealize in an inquiry, one may presume innocence to ensure fairness, one may make assumptions for the purpose of contingency planning, one may grant something for the purpose of an argument. (Stalnaker 2002, 716)

Speakers use common ground to their advantage whenever the acceptance of a false proposition facilitates communication without generating confusion.

6. Secondary Intentions in Referential Disambiguation

Stalnaker's models of common ground and common belief may be fruitfully combined with Grice's models of primary and secondary intentions. We can divide speakers' secondary intentions into two categories: those secondary intentions that belong to the common ground and those that do not. The first category is extremely important to our inquiry. Secondary intentions that belong to the common ground are a contextual resource that addressees may exploit to guide their comprehension. Now, speakers know that addressees know their common-ground secondary intentions, and they know that addressees can use their knowledge of these secondary intentions to disambiguate their utterances. Consequently, speakers may construct their utterances in a way that presumes that their addressees will use that resource. If the speaker structures her utterances with this presumption, the addressee's use of inferences to the speaker's intentions becomes non-optional. In fact, this conversational practice seems to be so common a phenomenon that addressees fluently accommodate it without a second thought. Hanna and Tanenhaus's (2003) study on definite descriptions offers a perfect illustration.

In that study, Hanna and Tanenhaus demonstrated that addressees use their beliefs about speakers' intentions to constrain the referential domain of utterances and thereby

facilitate interpretation. Hanna and Tanenhaus set up a laboratory task in which subjects were asked to play the role of a kitchen helper, assisting a cook in baking cupcakes. Items were arranged in the kitchen so that some were within reach for both the cook and her helper, and some were within only the helper's reach. The cook read a recipe, occasionally asking the helper to manipulate objects. One of these objects was named using a definite description that did not uniquely select a single object from the array of options. At one point in the recipe, the cook asked the helper to use "the cake mix." There was a box of chocolate cake mix in the area that both the cook and the helper could reach, and a box of white cake mix in the area that only the helper could reach.

The experimental manipulation was a common-ground clue to the cook's secondary intention: her hands. In some trials, the cook's hands were free when she asked the helper to pour the cake mix into a bowl; in other trials, her hands were full. Hanna and Tanenhaus predicted that if the helper (H) used inferences to the cook's (C) common-ground secondary intentions to decode the referents of her utterances, then when C asks for cake mix while her hands are free, H should infer that she is asking for his help because she needs him to use an object that she cannot reach. Therefore, when C's hands are free, H should consider only the objects in his own area as candidates for the referent of C's expression (108). H should not look for cake mix in the area within C's reach, and should not ask C to clarify her request, despite the fact that there exist two objects meeting C's description within the cooking area. On the other hand, when C's hands are occupied, H should consider all available objects as possible referents, and should therefore understand himself to be confronted with an ambiguous request that requires clarification (*ibid*).

These predictions were borne out by the results of Hanna and Tanenhaus's experiment. In trials when the cook's hands were full, helpers often asked the cook to disambiguate her reference. But in trials where her hands were empty, helpers took advantage of the manifest indication of her secondary intention and treated her request as unambiguous, reaching for the distant box of cake mix without asking for clarification. Moreover, evidence collected using eye-trackers demonstrated that when the cook's hands were empty, subjects searched only in their own area for an item that fit the description "the cake mix." When the cook's hands were full, however, subjects searched both areas. Hanna and Tanenhaus interpret these findings as evidence for a model of interpretation according to which addressees integrate "information that might shape the intentions of an [speaker]... with other lexical, structural, and discourse-based constraints" to interpret the referents of speakers' expressions (113). The addressee uses information that shapes the speaker's intention to help him figure out what the speaker's secondary intentions are. He integrates his conjecture about the speaker's secondary intention with other information contained in her utterance to infer speaker's primary communicative intention and thereby to understand the meaning of her utterance.

In the following two sections, I develop the observations of the last two sections into a series of arguments in favor of contextualism. Relying on the conception of truth-conditions developed in section 1, I argue that there exist cases where publicly-available information about the speaker's secondary intentions contributes to the truth-conditional content of her utterances.

7. Four Strikes Against Minimalism

In sections 3, 4 and 5, I described Grice and Strawson's models of primary and secondary intentions. Section 6 combined these two models and described the way that speakers and addressees use common-ground information about speakers' secondary intentions to facilitate communication. This section uses the models developed in the previous four sections to describe four linguistic phenomena that the minimalist position cannot adequately account for.

Relevance-guided acceptance of false propositions. In section 5, I observed that participants in a conversation are willing to accept propositions that they know are false if the truth or falsity of those propositions is immaterial to the purposes of the conversation and treating the false propositions as true facilitates some conversational goal. To do this, each participant in the conversation needs to have a concrete idea of what her conversational goals are and what her partner's conversational goals are. She needs to know which truths are important and which are immaterial for the purposes of the conversation. Her conception of both participants' conversational goals must be robust enough to supply relevance relations that will guide her in deciding whether to accept false propositions. Moreover, all participants need to be more-or-less in agreement about the question. In short, participants must use their knowledge of common-ground secondary intentions to accept propositions that they know are untrue without undermining their partners' conversational goals.

Lewis (1979) illustrates this phenomenon in his analysis of sentence 30. In most contexts, this sentence would be accepted even if one of the townspeople is having a midnight snack or reading in bed.

30. All the townspeople are asleep.

Lewis points out that the apparently slack interpretation of “all” in sentence 30 does not amount to a permissible error margin. There is no *number* or *percentage* of townspeople that is permitted to be awake. Rather, the townspeople’s relevance to the conversation determines whether they can be awake without falsifying the speaker’s claim. If the conversational participants are planning an attack on the town, then the existence of one or two insomniacs is immaterial to their goals and does not prevent the sentence’s acceptance into the common ground. But if the two wakeful townspeople are sentinels guarding the gates of the town, then 30 is not accepted. In other words, acceptance of sentence 30 is shaped by relevance to the speakers’ conversational goals.

The fact that speakers and addressees rely on their mutual knowledge of one another’s secondary intentions to decide whether to accept false propositions poses an interesting challenge for the minimalist conception of semantics. It shows that speakers can rely on shared knowledge of the secondary intentions in play in a conversational situation to express meanings non-literally. It also sets up an interpretive task that requires addressees to use their knowledge of speakers’ secondary intentions in order to correctly understand the meanings of those speakers’ utterances.

A minimalist could point out that according to the account I’ve given, speakers recognize the common-ground propositions that they have accepted as *literally false*. Neither conversational participant comes to believe the false propositions that are accepted in the course of a conversation; they only *accept* those false propositions for the sake of furthering their conversational goals. Thus, a minimalist would be free to claim that the observations given in this section do not exemplify pragmatic intrusion into truth-conditional content; rather, they illustrate the extent to which important components of

communicated meaning go beyond purely truth-conditional content (a fact which the minimalist is more than happy to concede).

Nevertheless, I insist that the fact of relevance-guided acceptance of false propositions constitutes a challenge to the minimalist, for two reasons. The first is that it upsets the minimalists' clean division between truth-conditions on the one hand and speakers' secondary intentions on the other. In cases where conversational participants accept propositions that they both recognize is false, they are *endorsing* certain propositions in a way that is conditional on the usefulness of that endorsement for some secondary purpose. Minimalism can accommodate this apparent subordination of the truth-conditional commitments of an expression to the secondary intentions of speakers and addressees, but it puts some pressure on the neat modular divisions that the minimalist position insists on.

There is a second reason to regard relevance-guided acceptance of false propositions as evidence against minimalism. When a speaker and her addressee mutually recognize that they are accepting a false proposition for the sake of some secondary purpose they share, the truth-conditional commitments of their utterances intuitively seem to adjust accordingly. Consider sentence 31.

31. The man drinking a martini is my ex-husband.

In a context where the speaker and the addressee mutually recognize that they are accepting the false proposition, "that man is drinking a martini," the sentence's presupposition that the man *is* drinking a martini does not seem to be any part of the truth-conditional claim that the speaker is making. Rather, in this context, "the man drinking a martini" is sort of a code name for "*that* man." Both the speaker and the addressee can successfully identify the truth-conditional commitments of the speaker

because they both understand this code. And they both understand it because they share the knowledge that they are mutually accepting a false proposition that is irrelevant to their secondary intentions.

Disambiguating the referents of ambiguous expressions. In section 6, we saw that participants in conversations use information available in the extra-linguistic context to make inferences about what another speaker might be trying to accomplish with her utterance. They then rely on their inferences about the speaker's secondary intentions to disambiguate the referents of the speaker's utterances. Hence, when subjects in Hanna and Tannenhaus's experiment were asked to pour cake mix by a cook who could reach one box of cake mix but not the other, they understood the referent of "cake mix" to be the box that the cook could not reach.

The particular nature of the pragmatic clues which Hanna and Tanenhaus claim are used to ground reference pose a challenge for semantic minimalism. Hornstein (1989) notes that the kind of information that goes into these inferences is incredibly diverse:

Potentially relevant information includes what is perceived, known, believed by those in the discourse situation, what is pretended to obtain, what one hopes might obtain, and what one incorrectly believes obtains.
(Hornstein 1989, 33)

In fact, "virtually anything is a possible resource situation," as long as it can become common ground (Hornstein 34). A theory that exploits the kind of information an interpreter must use to determine the secondary intentions behind an utterance would be importantly different from any theory in the literalist tradition. As Hornstein argues,

The introduction of resource situations and speakers' connections as possible indices should *not* be seen as an innocent extension of the traditional indexical apparatus. There is a qualitative difference between noting that words like "I" and "now" are interpreted relative to the discourse context and the observation that speakers' connections and

resource situations are also context-sensitive devices important to determining the interpretation of an utterance. (Hornstein 1989, 33)

Minimalism tries to keep context-sensitive expressions at bay by permitting the speaker and the time of utterance to serve as inputs to the semantic processor. This strategy works well enough for ordinary indexicals. But it would be inconceivable to construct a formal account of a sentence's meaning that takes as inputs *all* components of the resource situation that a speaker might use to ground her utterance. There exists no itemized set of facts for the semantic processor to check. Hornstein goes on to say that linguists who believe in "a modular language faculty" (25) should be worried by findings like Hanna and Tanenhaus's, which demonstrate the importance of resource situations in determining reference. "The reason," he says, "is that once one exploits general knowledge, beliefs, desires, hopes, dreams, etc., as vital parameters in one's linguistic theory, then the theory becomes intractable" (33).

Standards of precision. Many expressions, including deictic expressions like "here" and "now," and referential expressions like "home" and "midnight," are used with varying standards of precision. Speakers use different standards of precision depending on whom they are talking to and what they are trying to accomplish with their utterances. These differences affect the truth-conditions of the sentence. For example, consider sentences 32 and 33.

32. I arrived at the dock at 12:30.

33. Taylor was here yesterday.

In some contexts, 32 might be satisfied as long as the speaker arrived between 12:25 and 12:35 or so. In others, it may be satisfied only if the speaker arrived at the dock just as the clock struck 12:30.

Sentence 33 can express an even wider range of meanings. If a Swarthmore student utters 33 in the context of a conversation about her brother Taylor's college search, then the sentence is true as long as Taylor visited Swarthmore the day before, even if he never made it to the exact place where the conversation is happening. If the speaker and the addressee are chatting about the previous night's party as they clean up the room it was held in, then 33 is satisfied if Taylor was in the same room. If the speaker is telling the addressee that they missed out on seeing their friend Taylor, who lives in California and passed through Philadelphia on the way to New York the day before, then 33 can be true even though Taylor was miles away from the place where the conversation is taking place. If the speaker is telling the addressee that their Martian friend Taylor has been taking his starship on joyrides across the Solar System, "here" may be satisfied as long as Taylor landed on (or hovered above) planet Earth.¹⁸

Relevance to the goals of the conversation also regulates standards of precision when speakers make claims about similarity. Every pair of objects or events shares some similarities and some differences. Yet a claim that two objects or two events are "the same," "similar," or "different" is neither contradictory nor tautological. Consider sentences 34 and 35, for example.

34. Logan is reading the same magazine that Jamie's reading.

35. Logan made the same mistake three times.

In some contexts, 34 will only be considered true if Logan and Jamie are simultaneously reading the same (token) copy of the magazine; in other contexts, it only requires that Logan and Jamie are reading the same (type) issue of some magazine, though they may be reading different (token) copies; in other contexts still, the sentence will be true as

¹⁸ See Lewis (352) for more discussion of the uses of "here."

long as they are reading issues of the same magazine, though not necessarily the same issue. 35 can likewise vary in its entailments from one context to another. Logan's three different actions will be correctly classified as the same mistake as long as understanding them to be the same type of mistake is appropriate to the speaker's secondary intentions. In both cases, the variation in the utterance's possible truth-conditional meaning is driven partly by what the speaker is trying to accomplish by claiming that the magazine (or the mistake) is the same.¹⁹

Scales. Communication is often facilitated by the mutual recognition of an ordered scale. Scales famously give rise to scalar *implicatures*: if a speaker makes a weaker statement where she could have made a stronger one, then it is implicated that the speaker is not prepared to make the stronger statement, either because she knows it to be false or because she does not know it to be true. In some cases, her statement also *entails* statements weaker than itself. An investigation of these *scalar entailments* may offer insight into the interaction between speakers' intentions and truth-conditions. For example, consider sentence 37 (uttered as a response to 36). In easily-imagined contexts, 37 implicates 38 and entails 39. The implicature in 38 is cancelable: one could follow an utterance of 37 with 40 and thereby cancel the implicature. But the entailment given in 39 is not cancelable, and to utter 41 after 37 would be to contradict oneself.

36. Don't you have six pairs of shoes?

37. I have four.

38. I do not have more than four pairs of shoes.

39. I have three pairs of shoes.

40. In fact, I have five pairs.

41. # In fact, I do not have three pairs.

¹⁹ See Wittgenstein §79 and §88 for a like-minded discussion of expressions that describe similarity.

Now, minimalism is equipped to explain why 37 entails 39. But this example may serve as a starting point to help us find scalar entailments that can only be understood by an addressee who takes advantage of contextually-available clues about the speaker's secondary intentions.

In a sufficiently rich context, the scales that facilitate these inferences can be created ad-hoc (Levinson 2000, 105–7). For example, one might imagine a conversation about a long-winded student whose essays always exceed the page limit. In this context, a speaker may answer the question in 42 with sentence 43.

42. Can Casey trim his ten-page essay down to four pages?

43. He can get it to six.

If she does so, she will be flouting Grice's principle of Quantity, and her utterance will be understood to implicate 44.

44. He cannot trim his essay down to four pages.

Because a descending scale of page numbers is in play, sentence 43 seems to entail that Casey could accomplish tasks that are easier than cutting four pages out of his essay. 45 is therefore an entailment of 43's, and cannot be cancelled with an utterance like 46.

45. Casey can trim his essay to eight pages.

46. # In fact, he cannot trim his essay down to eight pages.

The conversational use that speakers are getting from these sentences gives their scales a weak-to-strong ordering and thereby assigns them the entailments given above, which they wouldn't have in other contexts. In many easily-imagined contexts, 43 could be used to express Casey's ability to write essays *up to* six pages long. If the context makes manifest the fact that the speaker is using 43 this way, then it will not entail 45, and may instead entail 47.

47. Casey can write a four-page essay.

If my interpretation of this evidence is correct, it is highly problematic for minimalism.

The setting of standards of precision and ordering of scales according to speakers' secondary intentions amounts to exactly the sort of interaction between speakers' intentions and the truth-conditional content of their utterances that minimalism rules out.

8. Fields of Comparison

In each of the cases described in the preceding section, speakers are taking advantage of contextual clues to carve the world into relations of relevance, contrast, similarity and opposition. Philosophers following Popper have sometimes conceived of the truth-conditional content of an utterance as those circumstances that the utterance rules out.²⁰ This conception is highly fruitful for the present inquiry. The meaning of 43 in a given context ultimately comes down to a question of what the speaker is contrasting his claim with. Casey can get his paper to a six-page length — as opposed to what? What can't he do? The truth-functional role of contextually-determined contrast classes is even clearer in the case of words like “here” and “now.” Does the speaker mean *here*, as opposed to the other side of the room? *Here* as opposed to elsewhere on campus? *Here* as opposed to Mars or Venus? Speakers produce utterances that express the truth-conditional content required from them by using all the mutually-identifiable signals at their disposal to create what Eldridge (forthcoming) calls a “field of comparisons” (17).

Eldridge describes this organizing field in terms of the philosophical notion of *aspect*. Philosophers in the Wittgensteinian tradition have treated aspect as an indispensable component of any activity requiring the use of concepts. A piece of paper,

²⁰ The cancellation test articulates a similar conception of truth-conditional content.

for instance, may be viewed under several aspects: it has a certain shape, a certain color, a certain temperature, and so on. We can conceptually separate these properties and draw attention to the piece of paper under one aspect or another. It would be absurd to suppose that the differences between these aspects reflects a difference in the object or even in the way of demonstrating it. (In *Philosophical Investigations*, Wittgenstein jokingly invites his readers to “point to a piece of paper.—And now point to its shape—now to its color—now to its number...” (§33).)

Nevertheless, it *is* possible to call attention the shape and not the color of an object. One could do so by indicating the object while explicitly disclaiming interest in its irrelevant properties. One could gesture at a vase, for example, and produce an utterance like 48 or 49 (from Wittgenstein §33).²¹

48. Look at that marvelous blue — the shape isn’t the point.

49. Look at that marvelous shape — the color doesn’t matter.

Or one could accomplish the same thing merely by uttering a sentence like 50 in a context that makes it clear what property of the object is salient and what field of comparisons the speaker is trying to construct in calling attention to it.

50. Consider this vase, for example.

The communication of aspect is facilitated by the integration of the bare words’ and structures’ syntactic properties with the pragmatic cues to intention given by the extra-linguistic context of utterance.

In the next section, I argue that the very same pragmatic cues that help us communicate aspect also demarcate the satisfaction conditions of predicates with variable

²¹ Even sentences like 45 and 46 need further contextual help to express a concrete aspectual sense. Wittgenstein notes that in the most easily imagined context, 45 calls attention to the object’s color in a particular way, which is different from the kind of attention that would be required by an utterance like “Is this blue the same as the blue over there?” or “Do you see the blue book over there? Bring it here.”

standards of precision, and thereby help us determine the truth-conditional content of utterances. I suggest that we may view linguistic objects as objects which, like vases and pieces of paper, can be viewed under many different aspects. A speaker may rely on her mutually-recognized secondary intentions to direct her addressee's attention to certain aspects of the linguistic objects she selected, and thereby place her utterance within the field of comparisons that correctly identifies the truth-conditions of her utterance.

9. Semantics Re-envisioned

The observations in section 6 showed that conversational participants have to incorporate information about whether the speaker can reach an object or whether the speaker's hands are full to determine the reference of a definite description (in that case, "the cake mix"). Our observations in section 7 motivated us to accept many more contextual clues to speakers' secondary intentions as contributors to the truth-conditional content of their utterances. Moreover, I argued that these clues are so subtle and diverse that no systematic scheme can be devised to account for them. Given these conclusions, it might seem that contextualism seeks to completely overhaul the academic discipline of semantics. If these observations force semantic theory to respond to facts like whether the speaker's hands are full, then it seems that the methodological practices of semanticists will have to be drastically revised.

Fortunately, contextualism does not call for such a radical revision of semantics. Phonologists do not need to explain the physics of the ear to adequately account for the phonological properties of spoken utterances; they can leave the explanation of the extra-linguistic capacities of hearing to physicists and psychologists. Likewise, semanticists need not trouble themselves to account for our ability to infer what other people are

aiming to accomplish with their actions (the ability that psychologists call the “mind-reading capacity”).²²

Nevertheless, contextualism does require one important change. According to the contextualist position, semantics must admit contextual contributions to the truth-conditional content of utterances by way of the mind-reading capacity. In other words, contextualism calls for an abandonment of the neatly modularized view of semantics and pragmatics, like the one that minimalists envision. The contextual cues that that speakers and addressees use to structure their utterances are incredibly diverse and variable. To try to enumerate them is a hopeless project, as we saw in section 7; so much the more hopeless would it be to try to account for the way that each cue affects each conversational participant’s knowledge of the others’ intentions, or to account for the way that those changes in beliefs about intentions alter the salience of each entity that the speaker might refer to. Worst of all for minimalism, it seems hopeless to try to account for addressees’ use of contextual information about speakers’ desires *while meeting the minimalist demand that contextual contributions be regulated by semantics*. In short, our observations compel us finally to give up on a theory of semantics that would have as its goal a formal algorithm that could decode an utterance’s truth-conditional content from its syntactic representation, its words’ lexical entries, and the finite set of contextual cues required to fill the semantic slots that its words opened up.

If non-linguistic input contributes to the truth-conditional content of sentences, then the goal of the semanticist cannot be to produce a theory that correctly predicts an

²² If there exists a specialized mind-reading module that is responsible for only the linguistic mind-reading I have described in this paper, then the job of describing that module does belong to linguists. Some theorists have defended just this position (see Sperber and Wilson 2002, 27–28 for an example). My account takes no sides on the question of whether the mind-reading used to accomplish the tasks described here is general or specialized.

utterance's truth-conditional content based only on linguistic input (e.g. lexical items and syntactic structures). There is no function mapping words in syntactic structures onto truth-conditions, so it cannot be the job of semantics to describe that elusive function. Nor can the semanticist's job be to produce a theory that correctly predicts a sentence's truth-conditions based on a combination of linguistic and non-linguistic input, because the processing of non-linguistic input would be beyond the scope of a linguistic theory.

But this is no major setback for linguistics. A contextualist understanding of semantics would not drastically alter the work of semanticists. It merely re-describes their task. According to the contextualist view, semanticists are engaged in discovering the meaningful properties of words and syntactic structures that speakers take advantage of when they use those words and structures to express themselves. In fact, semanticists are already making great progress in this project, though they seem hardly to have made a dent in the project that literalists have ascribed to them. These facts speak to the credit of the contextualist view.

Like all other objects in the common ground, linguistic objects can play a variety of roles in communication. The analysis of sentence 43 (reproduced below as 51) showed that "six" can serve to express either an upper or a lower bound — in that case, on the number of pages a student can produce in response to an assignment.

51. He can get it to six.

In just the same way, a vase visible to a speaker and her addressee may be called into focus to exemplify a certain color or a certain shape. No one would claim that the vase's properties change depending on what the speaker aims to accomplish by calling attention to it. We know that its *contribution* to the meaning of the utterance may change

depending on whether the speaker used it to demonstrate a certain shape or color, or to insinuate that the addressee should buy the speaker some flowers. Although the meaning carried by the overt demonstration of the vase is flexible, the vase's properties are rigid. It has a certain shape, it is colored a certain shade of blue, and it is primarily used to hold cut flowers. Participants in conversations can see these properties under different aspects precisely because the properties are publicly available and independent of aspect.

The same thing goes for words and syntactic structures. This is why I claim that my view of the interaction between semantics and pragmatics does not upset any trends in current semantic research. Words and structures do have meaningful properties independently of any context. These properties contribute critically to the truth-conditional meaning that gets assigned to sensible utterances in a sufficiently rich context.

Although the contextualist position that I advocate here is by no means earth-shattering, it has three significant consequences for the study of semantics. First, it cautions linguists to remember that their assignments of truth-conditions to sentences depend on their having imagined a certain typical context in which that sentence is being used, except in the case of truly eternal sentences, if any such sentences exist. Independently of a speaker who is using the sentence to communicate something within a particular context, a non-eternal sentence has no more truth-conditions than a senseless string of words does.

Second, it frees semanticists to embrace a more intuitive conception of truth-conditional content. Since contextual information enriches the bare words and syntactic structures that make up a sentence, the words and structures themselves do not need to

carry all the responsibility that semanticists may otherwise feel compelled to put on them. Lasersohn (1999) exemplifies the kind of error this insight guards against. In order to guard cold, hard, truth-conditional semantics against the fuzzy standards of precision exemplified by sentences 33-35 (repeated below as 52-56), Lasersohn advocates a wholly counterintuitive account of expressions like “12:30,” “here,” and “the same.”

52. Taylor was here yesterday.

53. I arrived at the dock at 12:30.

54. All the townspeople are asleep.

55. Logan is reading the same magazine that Jamie’s reading.

56. Logan made the same mistake three times.

According to Lasersohn, “here” is a precisely-defined point in space and “12:30” is a precisely-defined instant in time. A sentence like 53 is always literally false according to Lasersohn, because arriving is not an instantaneous event and hence cannot occur precisely at 12:30.²³ Lasersohn accounts for our intuition that 53 can sometimes be true by positing the existence of a pragmatic halo around 12:30 that makes 53 count as “true enough” (though still *literally* false) in some contexts. My conception of the relationship between semantics and pragmatics provides an alternative account of variable standards of vagueness that produces much more intuitively appealing results than Lasersohn’s account can. The contextual cues which cause us to accept 53 as “true enough” according to Lasersohn make the sentence true enough to be literally *true* according to me. These pragmatic cues clarify the use that the speaker of 53 is getting from the expression “12:30” by placing it in a field of comparison structured by relations of

²³ Vendler’s theory of *aktionsarten* classifies “arrive” as an achievement verb, which is completed at the instant that its *telos* is achieved. But Lasersohn points out that there is no metaphysical criterion for the completion of an act of arrival. This is especially true for sentence 52, because that sentence describes the arrival of a person at a dock, which (unlike a room or a building) not even have a threshold. The theory of *aktionsarten* is just one major casualty of Lasersohn’s account.

relevance to some illocutionary goal. Free to incorporate these pragmatic clues as contributors to the truth-conditional content of the utterance, semanticists will no longer feel drawn by (or forced toward) accounts like Lasnik's, which are far removed from our pretheoretical semantic intuition.

The third consequence of my claim is that it motivates further research of the interaction between linguistic and extra-linguistic information in the mind of the addressee. This research program is by no means a new one; Sperber and Wilson (2002) beautifully exemplifies the kind of systematic linguistic work that might address this issue. More can be done. Throughout this paper I have appealed to a vague intuitive sense of the mechanism by which mutually-recognized contextual cues might contribute to our understandings of one another's goals and intentions. Though extra-linguistic parameters are not susceptible to linguistic analysis (as discussed in section 9), their contribution to the truth-conditional content of expressions deserves more direct attention than it has received. A shift toward the conception of truth-conditionality and intention that I advocate might contribute to a shift in attention that would bring more light to these important topics.

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