Understanding Language

by

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Abstract
My dissertation concerns the nature of linguistic understanding. A standard view about
linguistic understanding is that it is a propositional knowledge state. The following is an
instance of this view: given a speaker $S$ and an expression $\alpha$ that means $M$, $S$ understand
$\alpha$ just in case $S$ knows that $\alpha$ means $M$. I refer to this as the epistemic view of linguistic
understanding. The epistemic view would appear to be a mere conceptual truth about
linguistic understanding, since it is entailed by the following two claims that themselves
seem to be mere conceptual truths: (i) $S$ understands $\alpha$ iff $S$ knows what $\alpha$ means, and—
given that $\alpha$ means $M$—(ii) $S$ knows what $\alpha$ means iff $S$ knows that $\alpha$ means $M$. I
argue, however, that this is not a mere conceptual truth. Contrary to the epistemic view,
propositional knowledge of the meaning of $\alpha$ is not necessary for understanding $\alpha$. I argue
that linguistic understanding does not even require belief. My positive proposal is that our
understanding of language is typically realized, at least in native speakers, as a perceptual
capacity. Evidence from cognitive neuropsychology suggests that our perceptual experience
of language comes to us already semantically interpreted. We perceive a speaker’s utterance
as having content, and it is by perceiving the speaker’s utterances as having the right
content that we understand what the speaker says. We count as understanding language
(roughly) in virtue of having this capacity to understand what speakers say when they
use language. This notion of perceiving an utterance as having content gets analyzed in
terms of Dretske’s account of representation in terms of a teleological notion of function:
you perceive a speaker’s utterance as having content when the utterance produces in you
a perceptual state that has a certain function in your psychology. I show how this view
about the nature of linguistic understanding provides an attractive account of how identity
claims can be semantically informative, as opposed to merely pragmatically informative, an
account that avoids the standard difficulties for Fregean views that attempt to account for
the informativeness of identity claims in terms of their semantics.

Thesis Supervisor: Robert C. Stalnaker
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Chapter 1

The Epistemic View

Imagine that you are traveling in Germany. You are a moderately competent speaker of German, but you come across an unfamiliar word, say, the word ‘Krankenschwester’. You see a kindly-looking, elderly German sitting on a bench nearby, and you ask him what ‘Krankenschwester’ means, hoping that he might know some English. With an air of authority, he smiles and politely replies in English “it means nurse,” which is indeed what the word ‘Krankenschwester’ means. Satisfied with his answer, you thank him and go on your way.

As a result of this exchange, you are now able to correctly use this previously unfamiliar word and correctly interpret it as it is used by other speakers of German. If a German speaker assertively utters the sentence ‘Die Krankenschwester ist nett’, for example, you will correctly take the speaker to be asserting that the nurse is nice. Or if you want to say in German that the nurse is coming, you will correctly express this thought with the sentence ‘Die Krankenschwester kommt’. In short, in a familiar sort of way, you have come to understand the word ‘Krankenschwester’.

However, suppose that, unbeknownst to you, the elderly gentleman—call him Herr Verrückt—is quite senile and doesn’t know a word of English. His reply to your question (viz., “it means nurse”) is something he once overheard, but he has no idea what it means or what he is saying when he utters it. In his senility, he has taken to repeating this to tourists, regardless of what he is asked. By sheer coincidence, this was the right answer to the question you happened to ask him. But, had you asked him the location of the nearest post office, he would have said the very same thing.
Given these further facts about the case, it seems that, although you come to believe correctly that ‘Krankenschwester’ means nurse, you do not thereby come to know that ‘Krankenschwester’ means nurse. Your true belief does not constitute knowledge for a familiar reason: the truth of your belief is merely accidental, and knowledge cannot arise in this merely accidental way. We might offer different diagnoses of exactly why your belief does not constitute knowledge. It might be because the truth of your belief is not appropriately related to your reason for holding it. You took Herr Verrückt to be sincerely reporting his knowledge that ‘Krankenschwester’ means nurse, when in fact he has no such knowledge to report. He has no idea what the English word for ‘Krankenschwester’ is and was merely parroting something he does not understand. It was just a fortunate coincidence that your belief nevertheless turned out to be true. Alternatively, it might be that your belief does not constitute knowledge because the source of your belief is unreliable. Herr Verrückt would have given the same reply regardless of what you asked him. Consequently, though he happened to give an accurate response, things were very likely to turn out otherwise. Whatever might be the right explanation of why your belief does not constitute knowledge, it seems clear that you do not come to know that ‘Krankenschwester’ means nurse.

If what I have just suggested is right, then you can understand a word without knowing its meaning—without knowing that it has that meaning. Yet this contradicts a standard and very natural view about understanding language.¹ What I will argue is that this standard view is indeed mistaken.

1.1 The Epistemic View

According the standard view about understanding language, to understand a bit language with a certain meaning is precisely to know that it has that meaning. I will refer to this as the epistemic view of understanding language. If we let $S$ be a speaker, $t$ a time, and $\alpha$ a word, phrase or sentence that means $M$, then according to the epistemic view:

Epistemic View: $S$ understands $\alpha$ at $t$ iff, at $t$, $S$ knows that $\alpha$ means $M$.

¹Understanding language should not be confused with understanding a language, say German. When I talk about understanding language, I am talking about understanding a word, a phrase, a sentence or any other bit of language. Thus understanding the word ‘butter’ is an instance of understanding language, though it clearly isn’t—at least in isolation—an instance of understanding a language.
This would seem to be a mere truism about understanding language, since it follows straightforwardly from two claims that themselves seem to be truisms:

**El:** \( S \) understands \( \alpha \) iff \( S \) knows what \( \alpha \) means, and

**E2:** \( S \) knows what \( \alpha \) means iff \( S \) knows that \( \alpha \) means \( M \).

\( E1 \) seems merely to articulate a fact about ordinary usage. Ordinarily, saying that \( S \) knows what \( \alpha \) means is just another way of saying that \( S \) understands \( \alpha \). That is, the ‘knows what’ locution is simply used interchangeably with the ‘understands’ locution. \( E2 \) also seems unobjectionable, since use of the ‘knows what’ locution ordinarily amounts to an oblique ascription of knowing-that. That is, to know what Jones saw is to know that Jones saw a squirrel. By analogy, it would seem that to know what \( \alpha \) means is to know that \( \alpha \) means \( M \). But if this is right—if understanding \( \alpha \) is equivalent to knowing what \( \alpha \) means and knowing what \( \alpha \) means is equivalent to knowing that it means \( M \)—then understanding \( \alpha \) is equivalent to knowing that \( \alpha \) means \( M \), just as the epistemic view asserts.

This makes for a very plausible formulation of the view that understanding language consists in possessing propositional knowledge. However, nothing in the discussion will turn on this particular formulation of the content of the propositional knowledge (viz., that \( \alpha \) means \( M \)) that is supposed to constitute understanding \( \alpha \). The reader should take this as an exemplar of the view that understanding language consists in possessing propositional knowledge, knowing that such-and-such. I invite the reader to substitute any other plausible formulation of the content of this knowledge.

Any plausible version of the epistemic view, however, must have it that the knowledge that constitutes understanding \( \alpha \) is knowledge about \( \alpha \). It might be tempting to suppose that ordinary, linguistically naïve speakers understand the word ‘water’, for example, merely by knowing familiar facts about water—e.g., that it is a colorless liquid that flows in rivers and streams—rather than by knowing esoteric semantic facts about the word ‘water’—e.g., that it is a mass noun and stands in the reference relation to water. However, understanding the word ‘water’ clearly cannot consist merely in knowing familiar facts about water, since a monolingual speaker of Cantonese knows that water is a colorless liquid that flows in rivers and streams and yet does not understand the word ‘water’. Perhaps understanding ‘water’ is just a matter of knowing that water is a colorless liquid that flows in rivers and streams and knowing that ‘water’ refers to that stuff. At any rate, it is plausible that
understanding language consists in possessing propositional knowledge only if we suppose that this knowledge includes some such facts about language.

It is important not to confuse this plausible view about understanding language with an implausible view about understanding what a speaker says. According to the epistemic view, knowing that a sentence has a certain meaning is equivalent to understanding that sentence. Possessing this knowledge is not supposed to be equivalent to understanding what a speaker says by assertively uttering that sentence. Knowing the meaning of the sentence a speaker utters is clearly not sufficient for understanding what the speaker says. Though you know what the sentence ‘He is a liar’ means, you might nevertheless fail to understand what I say by uttering it, if you don’t know who I am referring to. Still, even when you fail to understand what I say by uttering the sentence, you understand the sentence ‘He is a liar’ perfectly well. It is this understanding of the sentence that, according to the epistemic view, consists in knowing that it has a certain meaning.

The epistemic view has figured prominently in the theory of meaning as a presupposition of the widely held view that a competent speaker of a language \( L \) understands \( L \) in virtue of knowing the correct meaning theory for \( L \). Among the proponents of this view are Dummett [8, 9], Davies [3], Heck [15], Higginbotham [16], and Campbell [1]. Borrowing a term from Campbell, I will refer to this view as cognitivism [1, p.17]. According to cognitivism, semantics is in the business of articulating what speakers tacitly know in virtue of understanding a language. This is sometimes put by saying that semantics is psychologically real. There are at least two ways in which semantics might be psychologically real: either (i) semantic facts just are (or are ultimately reducible to) psychological facts about speakers, or (ii) semantic facts are the content of psychological states of speakers. Given that standard semantic theories purport to give the truth conditions of sentences, such theories are not naturally construed as being psychologically real in the first of these two ways, as ultimately being about speakers' psychological states. Cognitivism asserts, more plausibly, that semantics is psychologically real in the second way: a semantic theory for a language purports to articulate the content of the knowledge that constitutes a speaker's understanding of that language. For this reason, it matters that the knowledge which constitutes a speaker's understanding of a language be propositional knowledge, as the epistemic view asserts.
By underwriting cognitivism and thus making it plausible that semantics is psychologically real, the epistemic view provides for an account of how semantics can do certain explanatory work it is thought semantics should do. It is widely thought that meaning theories should explain the capacity speakers have to understand novel sentences, and it is thought that to do this a meaning theory must be compositional. Very roughly, a compositional meaning theory consists of meaning postulates that assign meanings to the simple expressions of a language and rules for deriving the meanings of complex phrases and sentences from these meaning postulates. For example, a meaning theory for English would assign a meaning to the word ‘dogs’ and a meaning to the word ‘bark’ and would supply the rule from which we can derive the meaning of ‘dogs bark’. It isn’t obvious why such a theory about the semantics of language would explain the ability speakers have to understand novel sentences. But, by crediting speakers with knowing meaning theories, cognitivism provides precisely this link between meaning theories and speakers’ capacities. According to cognitivism, a competent speaker of English knows the meaning postulates for ‘dogs’ and ‘bark’ as well as the rule for deriving the meaning of ‘dogs bark’. From this knowledge, a speaker who has not previously encountered ‘dogs bark’ can infer—thus coming to know—the meaning of ‘dogs bark’. And, according to the epistemic view, knowing that ‘dogs bark’ has this meaning just is understanding it. Thus, by crediting a competent speaker with knowing a compositional meaning theory for a language, we can explain the speaker’s ability to understand novel sentences.

This provides an important theoretical motivation for the epistemic view. But, at least as important as the theoretical motivation for the view, the epistemic view is simply the natural view about linguistic understanding. Indeed, as we have seen, it would appear to be a mere truism.

Yet I will argue that, far from being a mere truism, the epistemic view is indeed false. I will develop a series of counter-examples to show that, contrary to the epistemic view, possessing propositional knowledge is not necessary for understanding language. We have well-explored intuitions about what propositional knowledge requires, and I will argue that these are quite different from our intuitions about what understanding language requires.  

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²Because the term ‘intuition’ is so philosophically loaded, I use it with some reservation. Where I talk of intuitions all I mean to be talking about are the pre-theoretical judgments we make that seem, upon reflection, to be true. I do not take these judgments to have privileged epistemic status.
1.2 Tacitly Held Knowledge

The superficially straightforward task of raising counter-examples to the epistemic view is complicated by a distinction that proponents of the view draw, a distinction between knowing something explicitly and knowing it merely tacitly. I need to say something briefly about this distinction before turning to the counter-examples.

It is a familiar point that ordinary speakers are often utterly unable to adequately articulate the meanings of expressions they understand perfectly well. Ordinary speakers would be hard pressed to articulate the meaning of 'all', for example, though they have no difficulty understanding it in 'all politicians are corrupt'. So if the epistemic view is to be plausible, we must suppose that speakers possess this knowledge in a way that does not require the sort of articulate grasp of the meaning of a word that a semanticist might have.

Proponents of the epistemic view maintain that ordinary speakers do possess this knowledge of the semantics of natural language, but typically possess it only tacitly. On some accounts, a speaker tacitly knows that a word has a certain meaning, merely in virtue of having certain dispositions or abilities, perhaps being disposed or able to use the word in a way appropriate to its having that meaning.\(^3\) Tacitly possessing this knowledge does not require, in addition, that the speaker be able to articulate the meaning of the word. On other views, possession of the knowledge consists not in having the ability to use the word, but consists rather in possessing the cognitive states that normally underwrite this ability.

The friend of the epistemic view owes us some plausible account of exactly what tacitly possessing knowledge consists in, but for our purposes we can bypass the need for such an account. My present concern with the notion of tacitly held propositional knowledge is that, for any putative counter-example to the epistemic view—a speaker who seems to understand a word without knowing its meaning—it might be tempting to suppose that the speaker really does possess the requisite knowledge, but possesses it only tacitly. Though my counter-examples will draw on familiar and widely accepted intuitions about propositional knowledge, one might be tempted to suppose that the normal conditions for possessing propositional knowledge do not hold when the knowledge is possessed merely tacitly. However, this cannot be quite right. If tacitly held knowledge really is propositional

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\(^3\)It is important that this tacitly held knowledge is supposed to have propositional content. It is not supposed to be mere practical knowledge.
knowledge, then whatever is required for propositional knowledge (simpliciter) is required for both explicitly held and tacitly held propositional knowledge. This is not to suggest that there is no difference between explicitly and tacitly held knowledge; it is just to point out that these two ways of possessing propositional knowledge must satisfy the general conditions, whatever they might be, for possessing propositional knowledge in some way or other.\(^4\)

Conceding this doesn’t commit us to supposing that tacitly held knowledge precisely accords with the current theories about propositional knowledge. Someone committed to the epistemic view might insist that the prevailing views about knowledge fail to take into account the conditions under which speakers tacitly possess propositional knowledge about languages they understand and that the prevailing views consequently fail to get right the conditions for possessing propositional knowledge (simpliciter). So even if our intuitions about linguistic understanding do differ from the prevailing views about knowledge, rather than reject the view that understanding language consists in possessing propositional knowledge, we might instead revise our view about the conditions for possessing such knowledge. This gives the proponent of the epistemic view a line of reply to putative counter-examples: don’t reject the view that understanding consists in propositional knowledge; revise your conception of knowledge.

However, I will try to show that this line of reply cannot be plausibly sustained, since it would require us to reject our core intuitions about propositional knowledge. I will argue that linguistic understanding, unlike propositional knowledge, does not fail in Gettier cases (§1.3), does not require epistemic warrant (§1.4), and does not even require belief (§1.5).\(^5\)

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\(^4\)The usual terminology tends to obscure this. It is common to talk of speakers possessing tacit knowledge. But this terminology suggests that tacit knowledge might be a kind of knowledge distinct from propositional knowledge, perhaps practical knowledge (knowing-how). As we have seen, however, it is essential for the theoretical purposes to which the epistemic view is put—to make it plausible that semantics is psychologically real—that the knowledge that constitutes our understanding of language have propositional content. So tacit knowledge must be understood as a way of possessing propositional knowledge, rather than as a different kind of knowledge altogether. And any way of possessing propositional knowledge must satisfy the conditions for possessing such knowledge in some way or other. To avoid obscuring this, I prefer to speak of tacitly held propositional knowledge rather than of tacit knowledge.

\(^5\)Note that, although the discussion is organized into sections that correspond to three of the conditions (viz., belief, warrant and the so-called fourth condition) of the standard, four-condition analysis of propositional knowledge, the reader should not infer that my arguments rely on a particular analysis of propositional knowledge. My arguments will rely only on the intuitive judgments that speakers lack knowledge in the particular cases I present. The organization of the paper reflects the conditions for knowledge that these kinds of cases are thought to reveal. It is sufficient for my arguments, however, if the reader can agree with me that an imagined speaker does indeed lack propositional knowledge in the case I present (e.g., in my Gettier case), even if the reader does not accept my gloss on what this reveals about knowledge.
Though we might be tempted to revise our conception of propositional knowledge to some extent, I take it that it will not be tempting to suppose that propositional knowledge does not fail in Gettier cases, and requires neither epistemic warrant nor belief. There is nothing knowledge-like about a cognitive state that requires none of these. So the force of my argument against the epistemic view derives, in part, from the breadth of the epistemological intuitions that seem to go against it. Let us now turn to the case against the epistemic view, beginning with the Gettier case.

1.3 Accidental Understanding

Gettier [14] famously argued that true, justified belief does not suffice for knowledge. Consider a familiar example. You glance at the clock as you are rushing out the door, and the clock says that it is 2PM. You thereby come to believe that it is 2PM, and it is 2PM. Unbeknownst to you, however, the clock has stopped working and has read 2PM for several days. It just so happened that you looked at it at precisely the time it read correctly. Though you correctly believe that it is 2PM, it is widely thought that in such a case you do not know that it is 2PM, since the truth of your belief is merely coincidental. Knowledge is thought to require some sort of appropriate relationship between the warrant for your belief and its truth. There is little agreement on exactly what that relationship is. However, it suffices for our purposes if we can agree that, in such cases, the appropriate relationship does not obtain.

I began the paper with a variant of just this sort of case. We imagined that you asked Herr Verrückt what ‘Krankenschwester’ means in English, to which he correctly replied “it means nurse.” However, we also imagined that he says this regardless of what he is asked and has no idea what it means. Suppose your exchange with Herr Verrückt occurs at 10AM, and at that time you have no further evidence of the meaning of ‘Krankenschwester’. At 10AM, you believe that ‘Krankenschwester’ means nurse, and this belief is true. We may even suppose your belief was warranted, since you had no reason to doubt Herr Verrückt’s sincerity or linguistic competence. But your warranted, true belief does not constitute knowledge. That is,

(1) At 10AM, you do not know that ‘Krankenschwester’ means nurse.

Your belief fails to constitute knowledge, because the truth of your belief is not appropriately
related to your warrant for holding it. Perhaps your belief does not constitute knowledge because—as I am inclined to think—Herr Verrückt’s reply does not convey any information about the meaning of ‘Krankenschwester’. His reply conveys no such information, because he would have given the same reply regardless of what you ask him, just as the clock conveys no information about the time, because it reads 2PM regardless of what time it is.6 Whatever the right explanation might be for why knowledge fails in Gettier cases, it seems that one does lack knowledge in such cases, and hence we should accept (1).

However, it also seems that you do come to understand the word ‘Krankenschwester’. If Herr Verrückt had been an ordinary speaker, giving an informed reply to your enquiry about the meaning of ‘Krankenschwester’, you would uncontroversially have come to understand the word in a perfectly ordinary way. And yet, in the imagined case, you acquire the very same linguistic abilities you would have acquired if Herr Verrückt had given an informed reply. Specifically, you acquire the ability to correctly use the word in your own speech and the ability to correctly interpret its use in the speech of others. It does not seem to make any difference to your abilities as a speaker of German that you acquired these abilities as the result of a fortunate coincidence. Hence, it seems that

(2) At 10AM, you understand ‘Krankenschwester’.

From (1) and (2) it follows that you understand ‘Krankenschwester’ without knowing that it means nurse, and hence that the epistemic view is false. You seem to have the right abilities for understanding the word, but having those abilities is not sufficient for knowing its meaning.

One might point out that, although you do not know at 10AM that ‘Krankenschwester’ means nurse, you come very close to it. Given that you correctly believe that ‘Krankenschwester’ means nurse, only a little interaction of the appropriate sort with other speakers of German is required for your belief to become knowledge. Normally, it would take little interaction with other speakers of German, using ‘Krankenschwester’ and observing its use, to rule out (or at least render very improbable) the possibility that ‘Krankenschwester’ does not mean nurse. Normally, such an error would quickly come to light when the

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6Dretske [4] gives this diagnosis of why knowledge fails in Gettier cases. For Dretske, an event E conveys the information that p just in case the occurrence of E raises to 1 the probability that p. In his more recent work, Dretske [5] glosses the notion of information as follows: E carries the information that p just in case E would not have occurred unless p.
word is employed in conversation. Hence, you are in a much better position to know that 'Krankenschwester' means *nurse* than you were prior to your exchange with Herr Verrückt, when the possibilities as to the meaning of 'Krankenschwester' were wide open. Somewhat surprisingly, then, your epistemological position with respect to the meaning of the word 'Krankenschwester' seems to be substantially improved, despite the defective source of your belief. Though it isn't knowledge, it comes awfully close, and this might be thought to blunt the force of my counter-example.

However, this mere proximity to knowledge does not save the epistemic view from the counter-example. Suppose that after some interaction with other speakers of German, say at 10:15AM, you do come to know that 'Krankenschwester' means *nurse*. Then at 10:15AM you would not be in the position of understanding 'Krankenschwester' without knowing that it means *nurse*. Nevertheless, this does not count against my claim that, at 10AM, you *did* understand 'Krankenschwester' without knowing that it means *nurse*. However well-placed you might be at 10AM to come to have this knowledge, you don’t possess the knowledge at 10AM. And yet, at 10AM, it seems you understand the word, since you have the capacity to correctly use the word and correctly interpret its use by other speakers. At least so far, nothing more would seem to be required for understanding 'Krankenschwester'.

To adequately rebut my counter-example, someone sympathetic to the epistemic view must either make a case for rejecting (1) by arguing that you really do have the requisite knowledge at 10AM, or make a case for rejecting (2) by arguing that you don’t really understand ‘Krankenschwester’ at 10AM. I will begin with two arguments against (2), and then consider one objection to (1).

1.3.1 1st Argument against (2)

For the very same reason you don’t know that ‘Krankenschwester’ means *nurse*, you also don’t know what you are saying when you use the word. For example, if you assertively utter the sentence ‘Die Krankenschwester kommt’, you will correctly believe that you said that the nurse is coming. However, this belief does not constitute knowledge. Whatever counts against your knowing that ‘Krankenschwester’ means *nurse* also seems to count

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*I should add that it does not even seem to be necessary for understanding a word that one be well-placed to know its meaning. In the case I discuss in §1.4, the doubts that arise that undermine your claim to know the meaning of a word are doubts that are not so easily put to rest.*
against your knowing that you said the nurse is coming, since your belief that this is what you said derives in part from your belief about what ‘Krankenschwester’ means. And yet it is plausible to suppose that

(3) You understand α, only if you know what you are saying when you use α.

But since you do not know what you are saying when you use ‘Krankenschwester’, it follows that you do not understand ‘Krankenschwester’. Hence, it seems we should reject (2).

However, the initial plausibility of (3) trades on a certain presumption we have when we think of someone who doesn’t know what she is saying when she uses a word. For example, a child who takes to repeating a vulgar word without knowing what she is saying does not understand the vulgar word. This is the sort of case we might have in mind when we think of someone who doesn’t know what she is saying. Specifically, what we have in mind is a case in which the speaker is unaware of what she is saying. In that sort of case, the speaker clearly does not understand, and this is what makes (3) seem plausible.

Yet the case we imagined is not of this sort. Unlike the child who has no idea what she is saying when she utters the vulgar word, you have a perfectly accurate conception of what you are saying when you use ‘Krankenschwester’. You correctly believe that when you assertively utter ‘Die Krankenschwester kommt’ you thereby say that the nurse is coming. It is the source of your belief that counts against your knowing this. But, unlike the child’s ignorance of the meaning of the vulgar word, the source of your belief about the meaning of ‘Krankenschwester’ does not seem to make any difference to your abilities as a speaker, and hence does not seem to count against your understanding the word. At least, so far, no case has been made that it does make a difference. This brings us to the second argument against (2).

1.3.2 2nd Argument against (2)

There is a way in which your lack of knowledge of the meaning of ‘Krankenschwester’ does make a difference to your abilities as a speaker, in a way that plausibly does count against your understanding the word. Suppose, for example, that you correctly believe that the nurse is coming, and you believe this because a reliable speaker of German asserted that the nurse is coming—by uttering the sentence ‘Die Krankenschwester kommt’. Do you thereby come to know that the nurse is coming? It would seem not. You believe that the nurse is
coming because you believe that this is what the speaker asserted. You believe that this is what the speaker asserted, in part, because you believe that ‘Krankenschwester’ means nurse. But since you don’t know that ‘Krankenschwester’ means nurse, neither do you know that the nurse is coming, nor even that this is what the speaker asserted. Hence, although your true belief about the meaning of ‘Krankenschwester’ provides you with the ability to correctly use and interpret the word, there is a less obvious ability that it does not provide: the ability to acquire knowledge from other speakers.

Moreover, there is a case to be made that this ability is necessary for understanding. Understanding is part of communication. We communicate when one of us speaks and the other understands. To understand is to be a recipient of communication, or at least to have the capacity to be. According to Heck [15], communicating consists in exchanging knowledge—exchanging, not just true beliefs about the world, but also the reasons for holding those beliefs. If communication consists in exchanging knowledge, then understanding plausibly requires the ability to acquire that knowledge, to receive what is communicated. Plausibly, then, a belief about the meaning of a word constitutes an understanding of it only if can be utilized to acquire knowledge from other speakers. But since your belief about the meaning of ‘Krankenschwester’ cannot be utilized to acquire knowledge, it seems that you don’t understand the word after all.

An initial difficulty with this objection is that the ability to acquire knowledge from other speakers is not, in general, necessary for understanding language. Losing your hearing and sight will prevent you from utilizing your understanding of English to acquire knowledge, but you don’t thereby cease to understand English. An impairment of your hearing and sight is external to your understanding of language. We can put the point in terms of the competence-performance distinction: the loss of hearing and sight impairs your linguistic performance, but your linguistic competence (your understanding) is intact. However, in my Gettier case it is your linguistic competence itself that seems to be impaired.

Still, one might object that your beliefs about the meanings of words are consitutive of, not external to, your linguistic competence, and it is precisely your belief about the meaning of ‘Krankenschwester’ that prevents you from acquiring knowledge. So the objec-

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\(8\) You will of course lose your ability to understand what speakers say. But recall that we previously distinguished understanding what speakers say from understanding language. I have argued that the epistemic view is only plausible as a view about understanding language, because knowledge meaning is not sufficient for understanding what speakers say.
tion can be pressed: you fail to understand ‘Krankenschwester’, not merely because you are unable to acquire this knowledge, but because it is your belief about the meaning of ‘Krankenschwester’ (rather than some external obstacle) that prevents you from doing so.

If this is right, then your failure to know the meaning of ‘Krankenschwester’ ipso facto constitutes a failure to understand it—i.e., (2) is false—and so it seems that my Gettier case is not a genuine case of understanding without knowledge.

There are three points I want to make by way of reply. First, in trying to motivate this objection, I suggested that (i) communication consists in exchanging knowledge and (ii) understanding requires the capacity to be a recipient of communication, and hence a recipient of knowledge. However, it simply isn’t true that communicating consists in exchanging knowledge. We can communicate without exchanging knowledge. We might, for example, have a lengthy conversation in which we fail to convince one another of anything we didn’t already believe. Since belief is necessary for knowledge, we fail to exchange any knowledge. It would be odd to insist that, though we had hours of perfectly intelligible conversation, we didn’t communicate at all. If this is right, then communication does not require the exchange of knowledge. Hence, even if understanding language does require the ability to be a recipient of communication, we needn’t suppose that it requires the ability to acquire knowledge; you can successfully communicate without acquiring any knowledge. What does seem right to say (and I think captures the spirit of Heck’s view) is that the purpose of communication is to exchange knowledge and that the purpose of linguistic understanding is to facilitate the acquisition of knowledge. But this doesn’t get us the conclusion that you don’t understand ‘Krankenschwester’. Even if your belief about the meaning of ‘Krankenschwester’ cannot facilitate the acquisition of knowledge, all that follows is that your understanding of the word cannot realize its purpose, or at least one of its purposes.

Second, we might concede that this is indeed a defect of your linguistic competence, a defect of your understanding. However, it doesn’t follow from this that you don’t understand the word at all. A perceptual analogy is perhaps helpful here: being near-sighted is an impairment of your vision, but that doesn’t mean you are blind, that you don’t see at all. So even if your belief about the meaning of ‘Krankenschwester’ prevents you from acquiring knowledge from other speakers, it doesn’t follow that you don’t understand the word.

However—and this is the third point of reply—it is not even clear that your belief does
prevent you from acquiring knowledge from other speakers. It seems clear that some condition for knowledge is not satisfied (whatever condition fails in Gettier cases) such that your belief that ‘Krankenschwester’ means *nurse* fails to constitute knowledge. But should we suppose that the beliefs you form, *because* you believe that ‘Krankenschwester’ means *nurse* inherit the same defect such that they too fail to constitute knowledge? On some views about knowledge, this will not be the case. On a reliablist view, for example, your belief that ‘Krankenschwester’ means *nurse* fails to constitute knowledge, roughly, because Herr Verrückt is not a reliable source. Though you happen to form a true belief, the mechanism by which you did so is not a reliable one. But now consider your belief that the speaker who uttered ‘Die Krankenschwester kommt’ said that the nurse is coming. The way in which this belief is formed *is* reliable. The mere fact that you believe that ‘Krankenschwester’ means *nurse*—and interpret sentences containing the word accordingly—provides you with a reliable mechanism for forming true beliefs about what speakers say when they use the word ‘Krankenschwester’. These beliefs do not inherit the defect of your belief that ‘Krankenschwester’ means *nurse*. 9

In short, it is unclear whether your belief about the meaning of ‘Krankenschwester’ prevents you from acquiring knowledge from other speakers. But even if it does, it does not follow that you do not understand the word.

### 1.3.3 Objection to (1)

Rather than arguing that you don't understand ‘Krankenschwester’, we might try to make the case that you do possess the requisite knowledge. Even though you do not come to know that ‘Krankenschwester’ means *nurse*—that it has this meaning in German—your exchange with Herr Verrückt does result in your acquiring a disposition to treat the word as having that meaning. And merely in virtue of acquiring this disposition, we might suppose that

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9The same is true on the diagnosis of Gettier cases offered by Dretske [4]. On Dretske's view, your belief that ‘Krankenschwester’ means *nurse* fails to constitute knowledge, because Herr Herr Verrückt's reply did not carry the information that ‘Krankenschwester’ means *nurse*. For his utterance to carry this information requires that Herr Verrückt would not have uttered 'it means *nurse*' unless ‘Krankenschwester’ meant *nurse*. But, by hypothesis, this counter-factual us not true, since he would have uttered this in any case. His uttering this was unrelated to the fact that ‘Krankenschwester’ means *nurse*. Still, the beliefs you later form about what speakers say when they use ‘Krankenschwester’ do not inherit this defect. Though you did not acquire information what ‘Krankenschwester’ means, you nevertheless do acquire information about what speakers say. When the speaker utters 'Die Krankenschwester kommt', you believe that the speaker said the nurse is coming, but you wouldn’t have believed this had the speaker said something else.
the word ‘Krankenschwester’ comes to have this meaning for you. And even if you do not know that ‘Krankenschwester’ means nurse in German, surely you know that it has this meaning for you. This suggests that if we were to put the epistemic view in terms of this speaker-relative notion of meaning, rather than the language-relative notion of meaning, you would turn out to know that ‘Krankenschwester’ means nurse.

Though we want the meaning to be speaker-relative, we don’t want the understanding to be speaker-relative. That is, we don’t want it to turn out that if you treated ‘Krankenschwester’ as meaning, say, pickle, you would still count as understanding ‘Krankenschwester’, understanding (something like) your own use of the word. If the standard for understanding were also relative to your own use of the word, rather than to its use in German, it would be impossible to misunderstand the word. This is clearly not true of the ordinary notion of understanding we seek to explicate.

To make this proposal work, then, we need to make a case that possessing this knowledge about what a word means for you (speaker-relative meaning) is equivalent to understanding that word (language-relative understanding). But a case can indeed be made for this. Let \( \alpha \) be a bit of language that means \( M \) in a language \( L \). Given that \( \alpha \) means \( M \) in \( L \), it seems that (i) \( S \) understands \( \alpha \) iff \( \alpha \) means \( M \) for \( S \) and (ii) \( \alpha \) means \( M \) for \( S \) iff \( S \) knows that it does. What makes (i) plausible is that, given that \( \alpha \) means \( M \) in \( L \), \( S \) understands \( \alpha \) just in case it has the same meaning for \( S \)—that is, just in case \( S \)’s use of the word conforms to its use in \( L \). Moreover, (ii) is plausible, because it seems that \( \alpha \) can’t mean \( M \) for \( S \) without \( S \) knowing that it does, and of course \( S \) can’t know that it has this meaning for \( S \) if it doesn’t, since knowledge is factive. From (i) and (ii), we get the following speaker-relative version of the epistemic view:

**Speaker-Relative Epistemic View:** \( S \) understands \( \alpha \) (as it is used in \( L \)) iff \( S \) knows that \( \alpha \) means \( M \) for \( S \).

Of course, this will hold only on the background assumption that \( \alpha \) means \( M \) in \( L \). This assumption is what guarantees that \( S \) understands \( \alpha \) when \( \alpha \) means \( M \) for \( S \). Still, it

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10. We might instead put this by saying that the word has this meaning *in your idiolect* or that this is what *you mean* by the word. What is important for our purposes is that a word can come to have a meaning *relative to a speaker* merely in virtue of the speaker’s being disposed to treat the word as having that meaning.

11. Given that ‘Krankenschwester’ means nurse in German, a speaker who treats the word as meaning nurse plausibly counts as understanding it. But ‘Krankenschwester’ might have meant something else in German, in which case treating the word as meaning nurse would clearly not constitute understanding it.
does seem to preserve the spirit of the epistemic view: understanding language does consist in possessing certain semantic knowledge, albeit under the right background conditions. If this is right, you do possess the requisite knowledge for understanding ‘Krankenschwester’, contrary to what (1) suggests, since you at least know that ‘Krankenschwester’ means *nurse* for you.

However, not even this knowledge, knowledge of what a bit of language means for you, is necessary for understanding. Imagine again that you are in Germany, but this time you don’t understand any German at all, at least not initially. While wandering through a public square in Munich, you are struck by lightning. You are not seriously hurt, but you are a bit dazed. A crowd of German speakers gathers around to check on your condition, and to your amazement you have the impression of being aware of what they are saying when they speak German, even though you previously didn’t understand a word. I’m not imagining that it sounds to you as though they are speaking English, as if you were watching a dubbed movie. You are aware that they are speaking German, but their speech seems intelligible to you in just the way English is intelligible to you.

Suppose that, in fact, the extremely improbable has occurred, and—by some incredible coincidence—the lightning strike has produced in you precisely the sorts of brain states and linguistic dispositions that you would have if you were a perfectly competent speaker of German (a bilingual speaker of German and English). And, consequently, you really are aware of what the German speakers are saying; your impression of understanding is veridical.

There would seem to be little room to deny that you understand the words of German you hear. By hypothesis, you have the linguistic abilities of a perfectly competent speaker of German. But do you know what those words mean, even what they mean *for you*? Let us grant that, merely in virtue of being disposed to interpret speakers’ utterances correctly, you at least *tacitly* hold true beliefs about the meanings of the words you understand, and in particular about what they mean for you. Do any of these beliefs constitute knowledge?

It would seem not. Consider the epistemic position you are in: you have just been struck by lightening! For all you know, the impression you have that you understand German is a delusion caused by the lightening strike. Call this the delusion hypothesis. On the delusion hypothesis, though you have the impression of being aware of what the German speakers are saying, your beliefs about what they say are merely the product of your own imagination—
what you imagine they might say under the circumstances. In this case, the words of these speakers would mean *nothing* for you. Why? Our initial thought was that a word has a certain meaning *for you* in virtue of your being disposed to interpret the word in a particular way. But on the delusion hypothesis the beliefs you form about what speakers say are the product of your own imagination, not the product of some disposition you have to interpret words of German in a particular way. So if the delusion hypothesis were true, words of German would mean nothing for you.

According to my example, the delusion hypothesis is false—words of German do have meanings for you. Nevertheless, *for all you know*, the delusion hypothesis is true. Indeed, from your perspective, it is overwhelmingly likely, far more likely than the extremely improbable (but *ex hypothesi* actual) possibility that being struck by lightning has made you a competent speaker of German. So even if we grant that you tacitly believe that a word of German has a certain meaning for you, you don’t *know* that it does, since you cannot rule out the overwhelmingly likely possibility that the word means *nothing* for you.

Thus, you can understand a bit of language without even knowing that it has a certain meaning *for you*, contrary to the speaker-relative version of the epistemic view. It is important to note that this proposal fails, because even if we suppose that a word can have a certain meaning for you merely in virtue of your being disposed to use and interpret it in an appropriate way, there is no guarantee that you know that you have these dispositions. You are well-placed to know such things about yourself, but you are not infallible.

To take stock, I have so far argued that linguistic understanding does not require propositional knowledge by arguing that linguistic understanding, unlike propositional knowledge, does not fail in Gettier cases. However, I suggested earlier that there is a strategy for saving the epistemic view: rather than rejecting the epistemic view, we might suppose that what I have shown is not that understanding language doesn’t require propositional knowledge, but rather that there is a way of possessing propositional knowledge (viz., tacitly) even in Gettier cases. This would be an interesting result in itself, but I don’t think this is the right conclusion to draw.

What I will try to show in the remainder of the paper is that one cannot plausibly sustain this strategy for saving the epistemic view. I will argue that, not only does linguistic understanding not fail in Gettier cases, it does not even require epistemic warrant or belief. Though some of our intuitions about propositional knowledge might be open to revision, I
take it to be implausible to suppose that—contrary to what epistemologists have thought—none of these are necessary conditions for propositional knowledge (viz., warrant, belief, and whatever condition does not obtain in Gettier cases).

1.4 Understanding without Warrant

Knowledge is thought to require some sort of epistemic warrant. What I will now argue is that a speaker can understand a bit of language without the epistemic warrant that would be required for knowing its meaning.

There are competing views about the nature of epistemic warrant. Internalists maintain, roughly, that warrant supervenes on the beliefs and other internal states of a knower. Externalists deny this, allowing that warrant may derive from the reliability of the mechanism by which one forms a belief, which involves more than just the internal states of the knower. In order to remain neutral with respect to this disagreement, I want to begin by establishing a condition that is clearly sufficient for a speaker to lack adequate warrant for knowledge by either internalist or externalist lights.

Consider the following example. Imagine that your visual cortex has been surgically altered by a mad neuroscientist, so as to produce a partial spectral inversion that results in your misperceiving slightly more than half the colors in your perceptual repertoire. For example, green objects might appear to you to be red, while blue objects still appear to you to be blue. Suppose you know that you misperceive half your colors, but you don't know which colors you misperceive and, at least initially, are unable to check. Now imagine that you are presented with a ball that appears to you to be blue, and you have no independent evidence about the color of the ball. Suppose that the ball is in fact blue and you are perceiving it correctly, and suppose that—despite your awareness of how unreliable your color perception is—you believe that the ball is blue.

Does this belief constitute knowledge? On any view, it would seem not. By hypothesis, your color perception is your only source of information about whether the ball is blue, and—given that you misperceive half your colors—it is clearly unreliable. Moreover, you know that your color perception is this unreliable, so your own internal states do not sanction believing that the ball is blue. So without making any controversial assumptions about what epistemic warrant amounts to, we can say that in this sort of case you lack the
warrant knowledge requires. Abstracting from the particulars of this case, it seems that, quite generally

(4) If (i) $x$ is the only source of information $S$ has about whether $p$, (ii) the probability that $x$ is in error is greater than $\frac{1}{2}$, and (iii) $S$ knows that the probability that $x$ is in error is greater than $\frac{1}{2}$, then $S$ does not know that $p$ is true.

Note that this is merely supposed to be a sufficient condition for failing to have knowledge. A source of information needn't be this unreliable for you to lack knowledge, and perhaps you would lack knowledge even if you were unaware of the unreliability of your source of information.

Let us now turn to the language case. Again imagine that your brain is surgically altered by a mad neuroscientist, this time to produce in you a very specific (albeit fictitious) form of semantic aphasia. The effect of this aphasia is that slightly more than half of the mass nouns in your vocabulary will seem to you to have the wrong meanings. For example, it might be that ‘pudding’ seems to you to mean mud and ‘mud’ seems to you to mean pudding, but ‘milk’ might still seems to you to mean milk. Think of this as a kind of partial “semantic inversion”, by analogy with the partial spectral inversion.

When I say that the word ‘mud’ means pudding, what I am imagining is that you have a pervasive impression, affecting all aspects of your language cognition and memory, that ‘mud’ has the meaning that the word ‘pudding’ in fact possesses in English. If someone assertively utters the sentence ‘there is mud on the floor’, it will seem to you that the speaker said that there is pudding on the floor. You will have the impression that you can say that there is pudding on the floor by uttering the sentence ‘there is mud on the floor’. And, upon reflection, it will seem to you that the word ‘mud’ has always meant pudding; it will not seem to you that the meaning of ‘mud’ has changed.12

I am not imagining that when someone utters the sentence ‘there is mud on the floor’ it seems to you as though they uttered the sentence ‘there is pudding on the floor’. You don’t mishear the sentence the speaker utters; rather, you have a mistaken impression of what proposition the speaker thereby asserted. Nor am I imagining that you mistakenly think that mud is a dessert. You would not mistake a bowl of mud for a bowl of pudding and perhaps try to eat it. You are not confused about what sort of thing mud is. You still

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12We may need to suppose that you also misremember what words were uttered on past occasions.
know everything you previously knew about mud, except that it is called ‘mud’ in English.

Suppose that you were perfectly normal at 10AM, but by 11AM your brain has been surgically altered, and you are suffering the effects of the aphasia. As of 11AM, you are aware that you have this aphasia, but you have not had any opportunity to consult other speakers, dictionaries or any other sources of evidence of the meanings of words. You are aware that you have this misimpression of the meanings of slightly more than half the mass nouns in your vocabulary, but you do not know which mass nouns have been affected. I will refer to this as the *aphasia case*.

Now suppose that ‘water’ is one of the words in your vocabulary that is *not* affected by the aphasia. That is, if we let $W$ be the meaning of ‘water’, it will still seem to you (correctly) that ‘water’ means $W$.\footnote{The convention I have used so far has been to employ italicized words for ascriptions of meaning. But this convention is apt to lead to confusion here. I want to allow that, because of the uncertainty about your language cognition, you don’t know the meaning of ‘water’. We might put this by saying that you don’t know that ‘water’ means *water*. Yet there might be a temptation to suppose that to say that ‘water’ means *water* is just to express the trivial truth that ‘water’ means whatever it means, and consequently you couldn’t fail to know that ‘water’ means *water*. This is not how I intend these meaning ascriptions to be understood. I intend such a meaning ascription to be stand-in for whatever might be the proper way of expressing the contingent fact about the meaning of a word. As a matter of contingent fact, ‘water’ has a certain meaning. To remain neutral about what this fact amounts to, we put this by saying that ‘water’ means *water*. Nevertheless, ‘water’ might have meant something else! To avoid falling into confusion on this point, I will instead put this semantic fact by saying that ‘water’ means $W$. But, again, I intend this only as a stand-in for whatever might be the right way to express the fact about what ‘water’ means. I do not intend this to carry any ontological commitment to meanings as entities over which variables can range.} Suppose that you also believe that it has this meaning.

We might suppose that you are simply taken-in by your impression of what the word means, in spite of awareness that this impression is unreliable.

Does your belief constitute knowledge? It seems not, for just the reasons we gave in the case of the partial spectral inversion. Specifically, as of 11AM,

1. Your language cognition is the only source of information you have about whether ‘water’ means $W$.

Moreover, since slightly more than half of the words in your vocabulary of mass nouns do not mean what they seem to you to mean,

2. The probability that your language cognition is in error is greater than $\frac{1}{2}$.\footnote{The frequency of affected words in your vocabulary of mass nouns is of course a crude estimate of the relevant probability, but it will suffice for our purposes.}

And, lastly,
(7) You know that the probability that your language cognition is in error is greater than \( \frac{1}{2} \).

But from (4)-(7), it follows that

(8) At 11AM, you do not know that ‘water’ means \( W \).

In short, since your language cognition is genuinely unreliable and you are aware that it is, you do not know that ‘water’ means \( W \).

Do you still understand the word ‘water’ at 11AM, understand it as it is used in English? It seems that you do. By hypothesis, at 10AM, you were a competent speaker of English and understood the word ‘water’ perfectly well. And yet you still have the same ability to correctly use and interpret the word at 11AM as you had at 10AM, since ‘water’ was not one of the affected words. If someone utters the sentence ‘May I have a glass of water?’ it will seem to you, correctly, that the speaker is asking for a glass of water. If you want to express the thought that there is water on the floor you will correctly do so by uttering the sentence ‘There is water on the floor’. Since you have the same ability to use the word ‘water’ at 11AM as you had at 10AM, it seems that you still understand it at 11AM.

You will presumably have less confidence in your ability to correctly use and interpret language and will therefore be more hesitant as a speaker. And it might be pointed out that, in this respect, your ability to use the word ‘water’ will be impaired.

However, this sort of impairment does not undermine your claim to understand ‘water’, since we can imagine a case in which you clearly understand the word when your confidence in your linguistic abilities is undermined in exactly the same way. Specifically, imagine that the mad neuroscientist merely perpetrates an elaborate hoax on you. You are told (falsely) that your brain has been altered to produce the above-described aphasia, given fake surgical scars, shown elaborate gadgets supposedly used in the procedure, and so on. You are completely convinced that you suffer from the aphasia, when in fact you are perfectly normal. Call this the pseudo-aphasia case.

\[15\] Recall that the relevant notion of understanding is language-relative. As I pointed out in §1.3.3, if the notion of understanding a word is relative to the speaker's own use of the word, it will not be possible for a speaker to misunderstand a word. And this is clearly not true of the notion of understanding we seek to explicate.
To whatever extent your ability to use the word ‘water’ is impaired in the aphasia case, as a result of your hesitancy and lack of confidence in your abilities, your ability will be impaired in precisely the same way in the pseudo-aphasia case. So if having this linguistic impairment entailed that you don’t understand the word ‘water’ in the aphasia case, then you wouldn’t understand it in the pseudo-aphasia case either. Yet, clearly you do understand ‘water’ in the pseudo-aphasia case, since by hypothesis you are perfectly normal in this case—your brain has not been tampered with. So this lack of confidence in your abilities and resulting hesitancy doesn’t count against your claim to understand the word ‘water’ in either case. Hence, in the aphasia case, it seems we should accept that,

(9) At 11AM, you understand ‘water’.

And from (8) and (9) it follows that the epistemic view is false. Whereas knowledge requires some sort of epistemic warrant, linguistic understanding does not.

As in the previous section, a friend of the epistemic view must either make a case for rejecting (8) by arguing that you really do know that ‘water’ means \( W \) or make a case for rejecting (9) by arguing that you don’t really understand ‘water’.

Arguing against (9) seems unpromising. Since you clearly understand the word ‘water’ in the pseudo-aphasia case, to make the case that you don’t really understand the word in the aphasia case, one must point to some other ability, relevant to linguistic competence, that you lack in the latter case but not in the former. However, in §1.3.2, we already considered the most promising case to be made for this. There we considered the possibility that your lack of knowledge of the meaning of a word might impair your ability to acquire knowledge from other speakers and that this might count against your claim to understand the word. However, I argued that it doesn’t. Moreover, there does not seem to be any other abilities you lack in the aphasia case but possess in the pseudo-aphasia case that would plausibly count against your understanding ‘water’ in the former case but not the latter. So there seems to be no case to be made for rejecting (9).

Alternatively, one might take issue with (8). There is a case to be made that you really do have warrant for your belief that ‘water’ means \( W \), without realizing it. Like your ability to use the word ‘water’, your memories about the word ‘water’ remain intact. We might suppose, therefore, that you still have whatever evidence you originally had that ‘water’ means \( \text{water} \), the same evidence that all competent speakers of English have, and this is
presumably very good evidence. If this is right, then—in virtue of having this evidence—you still know that 'water' means $W$. You just don’t know that you know.

But this reply does not seem promising either. Though we might grant that you are still in possession of memories that are, for the rest of us, good evidence of the meaning of ‘water’, they are no longer good evidence for you. Once you are suffering the effects of the aphasia, your memory of the meanings of words and your language cognition in general are no longer reliable sources of information about the meanings of mass nouns, and you are aware that they aren’t. Whatever kind of epistemic warrant is required for knowledge, this seems to be a clear case in which you lack it.

To take stock, in §1.3 I argued that, whereas propositional knowledge is thought to fail in Gettier cases, linguistic understanding does not. I suggested, however, that a friend of the epistemic view might still insist that understanding language really does consist in possessing propositional knowledge and that what I have shown is, not that understanding does not require propositional knowledge, but rather that one can possess such knowledge even in Gettier cases. In this section, I have argued that understanding does not even require epistemic warrant. Here I take it to be implausible to stick to the view that understanding language consists in possessing propositional knowledge and insist that what I have shown is that propositional knowledge does not even require warrant. The notion of having warrant for a belief is essential to our conception of propositional knowledge. It is what distinguishes knowledge from a lucky guess and from mere belief.

1.5 Understanding without Belief

This brings us to the final point I will to argue for: not even belief is necessary for understanding language. In terms of the dialectic of my argument, this does two things. First, it bolsters my case that the epistemic view cannot be rescued by revising our conception of propositional knowledge, since (if I am right) taking that line would force us to conclude that propositional knowledge does not even require belief. Second, it constitutes an argument against an attractive fall-back position that the friend of the epistemic view might take.

The fall-back position is this. Even if understanding language is not a knowledge state, it is consistent with what I have so far argued to suppose that it is a belief state. That
is, even if understanding a given bit of language does not consist in knowing that it has a
certain meaning, it might nevertheless consist in believing that it has that meaning. Call this the doxastic view of understanding language:

**Doxastic View:** $S$ understands $\alpha$ at $t$ iff, at $t$, $S$ believes that $\alpha$ means $M$.

Again, it is clear that many speakers do not have explicitly held beliefs about, e.g., the
meaning of the word ‘all’, in the way that a semanticist might. So, if this view is to be plausible, we must suppose that many speakers hold the requisite beliefs only tacitly.\(^{16}\)

Again, we are owed some account of this. But we do not require such an account here, since
my argument that belief is not necessary for understanding language does not rely on any
particular way of cashing out the notion of tacitly held belief.

To show that belief is not necessary for understanding language, I will argue that to
understand a bit of language with a certain meaning it is sufficient that it seem to the
speaker to have that meaning, even if the speaker does not believe (tacitly or otherwise)
that it does.\(^{17}\)

For belief and understanding to come apart in this way, it must be possible for things to
seem a certain way without one’s believing that things really are that way. It might seem obvious that this is possible (if it does, so much the better), but we have to be careful how
we put the point. Imagine that you are in a flight simulator, experiencing the simulation
of flying a plane, but you are perfectly well aware that it is merely a simulation. How do things seem to you, vis-à-vis whether you are flying a plane? We might rightly balk at saying that it seems to you that you are flying a plane. The 'seems that' locution strongly suggests a reading according to which it couldn’t seem to you that you are flying a plane unless you believe that you are. If I ask you how many books are on the shelf and you reply “it seems to me that there are seven books on the shelf,” you haven’t left it open that you might believe there are only five books on the shelf. Similarly, we might suppose that when we say that it seems to you that you are flying a plane, we haven’t left it open that you

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\(^{16}\)Evans and Wright have argued against attributing to speakers tacitly held belief in a semantic theory. Evans [11] argues that the linguistic behavior of speakers does not exhibit the sort of interaction with a speaker’s desires that would sustain an attribution of belief. Wright [24] argues against such belief attributions on the grounds that speakers lack the requisite cognitive sophistication. I disagree with Evans about the degree to which speakers’ linguistic behavior interacts with their desires, and I disagree with Wright about the cognitive sophistication required for knowledge and belief attributions. But I won’t take up these issues here.

\(^{17}\)Hunter [17] has also argued that understanding does not require belief, though his argument is substantially different from the one I provide here.

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might not believe that you are. And since we supposed that you are well aware that you are in a simulator, this does not accurately reflect your cognitive state.

Still, though you do not believe that you are flying a plane, the simulator is supposed to make things seem that way to you. We can safely put this by saying that it seems to you as though you are flying a plane. Even if it cannot seem to you that you are flying a plane when you do not believe that you are, it can certainly seem to you as though you are flying a plane. You would not contradict yourself if you said, “The simulator was very convincing. It seemed as though I was flying a plane, but of course I didn’t believe that I really was flying a plane.” This then is the way to put the point that things can seem to you a certain way without your believing that things really are that way: it can seem to you as though \( p \), even if you do not believe that \( p \).

Note that, not only can things seem to you a certain way when you do not believe things are that way, you can be in this state independently of how things really are. For example, regardless of whether you are in a plane or in a simulator, it can seem to you as though you are flying a plane without your believing that you are. How things seem to you and how you believe things to be are both independent of how things really are.

Turning now to the language case, I want to make the case that it suffices for understanding a word with a certain meaning that it seems to you as though it has that meaning, even if you don’t believe that it does. Consider a variant of the pseudo-aphasia case from the last section. Imagine that you have been kidnapped by a group of mischievous neurologists, and they tell you, credibly, that your brain has been altered so as to produce an aphasia the effect of which is that all of the mass nouns in your vocabulary will seem to you to mean something they do not in fact mean. This is what you are told. But, in fact, you are perfectly normal, and an elaborate hoax is being perpetrated on you by the neurologists.\(^{18}\) You are told that your memory has been altered; you have fake surgical scars; the neurologists have shown you the sophisticated technology that was supposed to have been used in the procedure and have given a credible explanation of how the change to your cognition was supposed to have been achieved. (We might have to suppose that you are a bit nave in neurological matters.) To complete the hoax you are allowed to interact with speakers who

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\(^{18}\)The contrast with what I previously called the pseud-o-aphasia case is simply that, in that case, you were told that you misperceive the meanings of only slightly more than half the mass nouns in your vocabulary. In this case, you are told that all the mass nouns in your vocabulary are affected.
use mass nouns as though they meant something they don't in fact mean. You hear them say things like: “Let's have mud for lunch” and “The rain made big puddles of pudding.” Suppose that you are completely convinced that you do indeed suffer from the aphasia, and as of 11AM you have not yet had the opportunity to discover that it is merely a hoax.

Since we are supposing, by hypothesis, that you are completely convinced that you suffer from an aphasia such that no mass nouns actually mean what they seem to you to mean, if we let $W$ be the meaning of ‘water’, it seems that

(10) At 11AM, you do not believe that ‘water’ means $W$.

I am not imagining that you merely pay lip service to what you were told. You do not merely assent to the claim that mass nouns do not mean what they seem to you to mean and yet go about your linguistic business as you normally would, confidently using mass nouns in the usual way. Rather, I am imagining that you really behave in a way that reflects that you do not believe what you previously believed about the meanings of mass nouns. If a word seems to you to have a certain meaning, you will thoroughly behave as though it does not in fact have that meaning. If someone says ‘may I have a glass of water?’, you will not take the speaker to have asked for a glass of water. Indeed, you will rely on this not being the case, since you are convinced that your impression of the meanings of mass nouns is always mistaken.

Nevertheless, though you are convinced that none of the mass nouns in your vocabulary really mean what they seem to you to mean, by hypothesis, your language cognition is perfectly normal. Contrary to what you believe, your brain has not been tampered with and you are still a perfectly competent speaker of the language. You merely have a false belief about your competence. Hence, it seems that,

(11) At 11AM, you understand ‘water’.

You still have the same ability to use and interpret the word ‘water’ in the correct way, even though you are no longer believe that this is the correct way.\(^{19}\)

\(^{19}\)Again, the relevant standard of understanding is language-relative, not speaker-relative. If the standard for understanding were relative to your own use, then—as previously noted—it would be impossible to misunderstand the word ‘water’. But this is clearly not the case. If you were not merely in a state of doubt about the meaning of ‘water’, but instead came to believe that it means milk and used and interpreted it accordingly, then you would not count as understanding ‘water’.
From (11) and (10), it follows that the doxastic view of word understanding is false. A speaker can understand a word with a certain meaning and yet not believe that it has that meaning.

How should we characterize your cognitive state? In what does your understanding of the word ‘water’ consist?

An obvious proposal is to say that you still know how to use the word ‘water’, even though you no longer believe that it is the correct way to use the word. And you still understand the word in virtue of knowing how to use it. However, this doesn’t seem quite right, since it seems inappropriate to characterize someone as knowing how to use a word under conditions of uncertainty, when the speaker is uncertain about which is the right way to use the word. That is, you are uncertain whether ‘water’ is used to refer to water—indeed, you are convinced that it is not—or to some other kind of stuff. Consequently, it seems right to say that you do not know how to use ‘water’, precisely because you are uncertain how to use ‘water’.20

Another difficulty with this proposal is that it is a matter of controversy whether knowing-how is indeed distinct from knowing-that. Stanley and Williamson [23], for example, argue that knowing-how is just an instance of knowing-that. If this is right, then the proposal that understanding is knowing how is just an instance of the epistemic view.

What does seem right to say about my example is that, though you don’t believe that ‘water’ means W, it seems to you as though it does. When someone assertively utters the sentence ‘there is water on Mars’, it will seem to you as though the speaker said that there is water on Mars. As a competent speaker of English, you cannot help having this impression, even though you are utterly convinced that it is mistaken. But that you have this impression is enough for you to count as understanding the word. This is how you differ from, say, a monolingual speaker of Chinese. A monolingual speaker of Chinese has no impression whatever of what a speaker says who assertively utters the sentence ‘there is water on Mars’. And it seems plausible that it is in virtue of this that you understand the word ‘water’ and the monolingual speaker of Chinese does not.

Could this perhaps mean that you still tacitly believe that ‘water’ means W? Could you perhaps believe, just a little bit? Of course, there are cases in which someone believes something he or she explicitly denies. Someone might explicitly deny that a bridge will

20Or worse still, you are certain but mistaken in the belief that it is not used to refer to water.
support their weight and yet confidently walk across it. And, as long as we take her to have otherwise normal background beliefs and desires, we would take her to believe what she explicitly denies, viz., that the bridge will support her weight. In such a case, the disbelief is only superficial. But this is not the sort of case I am imagining. Again, I am not supposing that you merely claim that mass nouns do not mean what they seem to you to mean and yet otherwise behave as though they do. I am supposing that you thoroughly behave as though mass nouns do not mean what they seem to you to mean.

Since your disbelief goes this deep, there is nothing about you that would support the attribution of the belief that ‘water’ means $W$. You don’t believe it even a little bit, and you don’t believe it tacitly. To see this, let us consider what we would say about another propositional attitude, say fear. Presumably you do not exhibit the behavior of someone who fears that ‘water’ means $W$. For example, you don’t tremble when someone says that ‘water’ means $W$, or experience anxiety if you begin to suspect that ‘water’ might have meaning $W$, or tremble at the thought that ‘water’ means $W$, and so on. Is it reasonable to suppose that you nevertheless tacitly fear that ‘water’ means $W$, or that you fear, just a little bit, that ‘water’ means $W$? This is of course an absurd idea. There is nothing about your behavior with respect to the word that is in any way fear-like. Hence, there is nothing about you that would support the attribution of tacitly fearing, or fearing a little bit, that ‘water’ means $W$. Similarly, in the case we imagined, there is nothing about you that would support the claim that you tacitly believe that ‘water’ means $W$. Hence, in order to understand ‘water’, you needn’t believe that ‘water’ means $W$. As we might put it, you needn’t adopt the belief attitude to the proposition that ‘water’ means $W$.

1.6 Conclusion

I have argued that—contrary to the epistemic view—understanding a bit of language does not require propositional knowledge of its meaning. Unlike propositional knowledge, understanding language does not seem to fail in Gettier cases and does not seem to require epistemic warrant. There might have been some initial temptation to suppose that what my Gettier case shows is, not that understanding language does not consist in possessing propositional knowledge, but rather that one can possess propositional even in Gettier cases, perhaps when the knowledge is tacitly held. But I have argued that this defense of the
epistemic view (saving the epistemic view by revising our conception of propositional knowledge) cannot be sustained, since we cannot plausibly insist that what my counter-example in §1.4 shows is, not that linguistic understanding does not require propositional knowledge, but rather that there is a way of possessing propositional knowledge (viz., tacitly) without epistemic warrant. Even if we suppose that speakers’ beliefs about the meanings of words might be tacitly held, any belief you hold for which you lack epistemic warrant does not constitute propositional knowledge, regardless of how we might suppose that belief to be held, be it tacitly or explicitly. Contrary to the epistemic view, then, understanding language does not require propositional knowledge in any of the ways such knowledge can be held.

I went on to argue that understanding language does not even require belief. That is, to understand a bit of language with a certain meaning, it is not necessary to believe that it has that meaning. It is sufficient, I have argued, that it seem to you to have that meaning, whether you believe it or not. This bolsters my case that we cannot plausibly save the epistemic view by revising our conception of knowledge, since such a move would also require us to suppose that propositional knowledge does not even require belief. But it also blocks an attractive fall-back position for the friend of the epistemic view, what I called the doxastic view. We cannot simply draw the conclusion that linguistic understanding merely amounts to having certain semantic beliefs, without the additional trappings of knowledge.

So where does this leave us? If understanding language does not consist in possessing propositional knowledge, we might conclude that it consists in possessing practical knowledge. That is, understanding a bit of language is not a matter of knowing that it has a certain meaning, but is rather a matter of knowing how to use it. This is the obvious proposal, and it is consistent with what I have argued here. However, it is not the view I advocate.

As I have already suggested, a prima facie difficulty with this proposal is that practical knowledge is naturally construed as an instance of propositional knowledge: to know how to use a bit of language is to know that it is used thus-and-so. If this were right, then identifying linguistic understanding with knowing-how would not succeed in identifying linguistic understanding with a kind of non-propositional knowledge. In any case, one conclusion we might draw from my arguments is that understanding language consists in possessing some kind of non-propositional knowledge, and practical knowledge may or may
not be a candidate.

Yet nothing I have argued here suggests that linguistic understanding does not have propositional content. All I have argued is just that it is not propositional knowledge. Indeed, it is very natural to suppose that linguistic understanding does have propositional content. Whatever turns out to be the nature of the psychological states that constitute our understanding of language, it is natural to suppose that those states are representational. The view that understanding is some sort of non-propositional knowledge implies that our understanding of a language consists in psychological states that are not representational, and specifically that they do not represent the semantic properties of the language. And nothing I have said here suggests that this is the case. So identifying linguistic understanding with some sort of non-propositional knowledge seems to draw the wrong sort of lesson from the discussion.

The point to emphasize is not that linguistic understanding is not propositional knowledge (in contrast with other sorts of knowledge) but rather that it is not propositional knowledge (in contrast with other propositional attitudes). Propositional knowledge is widely thought to fail in Gettier cases, to require some sort of epistemic warrant, and to require belief. Because this is not true of linguistic understanding, the lesson to draw is that linguistic understanding is not that sort of propositional attitude. And, since I have argued that it does not require belief, it cannot be that sort of propositional attitude either. The arguments presented here leave it open whether linguistic understanding is some other sort of propositional attitude.

We clearly have certain complex abilities in virtue of understanding language; we are reliably able to arrive at accurate beliefs about what speakers say when they utter sentences, and we are also reliably able to produce the right sentences to say what we want to say. It is plausible that we have these abilities in virtue of having a rich representation of the semantics of the languages we understand. But, we needn’t suppose that possession of such a representation constitutes possession of propositional knowledge. We needn’t suppose that coming to understand a language is an epistemic matter, a process of accumulating evidence of the meanings of words. Speakers may, and no doubt do, come to know facts about the languages they understand. But what I have tried to show here is that acquiring such knowledge is not a necessary condition for understanding language.
Chapter 2

The Perceptual View I: Perceiving As

In the previous chapter, I argued that understanding language does not require propositional knowledge about language, or even beliefs about language. Specifically, it does not require knowledge or beliefs about the meanings of words. Such knowledge or beliefs are not necessary for understanding language. This makes room for my positive proposal about the nature of linguistic understanding: understanding of language is best thought of as a kind of perceptual capacity, rather than what we ordinarily think of as knowledge or belief. If the epistemic view or the doxastic view were true—if linguistic understanding were essentially a propositional knowledge or belief state—the view I want to defend would be ruled out a priori. This is why it was important to show that, contrary to what one might have naturally thought, it is not a matter of conceptual necessity that understanding language consists in possessing propositional knowledge.

I will argue that evidence from cognitive neuropsychology suggests that we understand language by perceiving language as having a certain meaning or content, rather than by knowing or believing that it does. Understanding language is an instance of perceiving-as, not an instance of knowing-that or believing-that. I will refer to this as the perceptual view. Much more will be said shortly about the substance of this view.

Nevertheless, it is consistent with what I argued in the last chapter to suppose that possessing appropriate knowledge or beliefs about language is sufficient for understanding it. Even if it is not a matter of conceptual necessity that our understanding of language is
realized by knowledge or belief states, it might nevertheless be a matter of contingent fact that our understanding of language is thus realized. Nothing I have argued so far rules this out. So we still have as live options weak versions of the epistemic view and the doxastic view. According to the weak version of the epistemic view,

**Weak Epistemic View** As a matter of contingent fact speakers typically understand language in virtue of satisfying the following sufficient condition: given a bit of language $\alpha$ that means $M$, a speaker $S$ understands $\alpha$ if $S$ knows that $\alpha$ means $M$.

Similarly, we get the following weak version of the doxastic view

**Weak Doxastic View** As a matter of contingent fact speakers typically understand language in virtue of satisfying the following sufficient condition: given a bit of language $\alpha$ that means $M$, a speaker $S$ understands $\alpha$ if $S$ believes that $\alpha$ means $M$.

These views are weaker than their previous counterparts, in that they purport to tell us only how our understanding of language is realized, as a matter of contingent fact, not how our understanding of language must be realized as a matter of conceptual necessity.

It is this issue I want to turn to in this chapter: what sort of cognitive states in fact realize our understanding of language? This is partly an empirical question and partly a philosophical one. The empirical question is: what are the states that realize our understanding of language like? The philosophical issue is: are states like that properly regarded as knowledge, beliefs, or—as I will argue—a perceptual capacity?

I’ll begin by elaborating the perceptual view of linguistic understanding that I will defend. Specifically, I want to bring out the contrast between regarding linguistic understanding as a perceiving-as phenomenon, rather than as a knowledge or belief state. I’ll then turn to some of the evidence from cognitive neuropsychology that I think supports this perceptual view. In the latter sections of the paper, I will go on to provide an analysis of what this perceiving-as phenomenon amounts to, drawing on Dretske’s account of mental representation.

### 2.1 An Analogy with Direct Realism

Suppose you utter the sentence ‘Bill Clinton is a Democrat’, thereby asserting that Bill Clinton is a Democrat, and suppose that I hear and understand your utterance, thereby
coming to know that you said that Bill Clinton is a Democrat. Exactly how did I come to know that this is what you said? Here I am not concerned with how I came to know that Bill Clinton is a Democrat. What I am asking is merely how I came to know that you said that he is.

According to the weak epistemic view, I came to know this in something like the following way. You uttered the sentence ‘Bill Clinton is a Democrat’, and I heard that you uttered this sentence. Since I understand the sentence I heard you utter, I know what it means. By hearing what sentence you uttered and knowing what it means, I was able to infer that you said that Bill Clinton is a Democrat. This gives a two-step account of how I know what you say: (1) first I hear the words you utter, and (2) I then infer what you thereby say, drawing on my background knowledge of what those words mean. This is not to say that I go through some laborious process of figuring out what you said. We might suppose that the inference is habitual, occurs automatically, perhaps without my even being conscious of the inference.

What I will argue is that this is the wrong view about how we come to know what other speaker say, at least how we typically come to know what other speakers say. I will argue for a one-step account of how I know what you say: I simply hear what you say, I hear that you said that Bill Clinton is a Democrat. I don't merely hear that you uttered the sentence ‘Bill Clinton is a Democrat’ and then infer that you said Bill Clinton is a Democrat. My auditory experience of your utterance comes already interpreted for the content of your utterance. As we might put it, I am directly aware of the content of your utterance.

This brings out an analogy with a familiar issue about perception. As I look out the window, I see that there is a squirrel about 30 feet away from me. I see the squirrel. At least, I would have thought that I see the squirrel. Yet proponents of sense data theory have maintained that it is not the squirrel I see, at least not in the first instance. Rather, what I see in the first instance is my own sense data, a mental proxy for the squirrel. I see some such object that is “in” my own mind, and it is distinct from the squirrel that is 30 feet away. That there is a squirrel before me is an inference I draw. I see my own squirrelly sense data, but I can only infer that there is therefore a squirrel before me causing my squirrelly sense data.

There is some awkwardness in putting the point in terms of the notion of seeing, and a more refined sense data theorist will put the point a bit differently. We should perhaps
say, not that I see my sense data, but rather that I perceive my sense data, that I am acquainted with it, or that I am simply aware of it. Moreover, we may want to allow that I do see the squirrel. It may be that what we ordinarily regard as my seeing the squirrel is constituted by the whole process of perceiving the sense data and inferring that there is a squirrel before me. For the sense-data theorist, the important point is that I see the squirrel, if at all, only indirectly. I see the squirrel by perceiving, being acquainted with or being aware of something else, my own sense data.

By contrast, many philosophers maintain that perception is not indirect in this way. I see the squirrel directly, not by seeing something else, some mental proxy for the squirrel. I just see that there is a squirrel before me. I do not merely see that I have squirrelly sense data, such that I must infer from this that there is a squirrel before me. This is direct realism.

The use of the term 'direct' is perhaps somewhat misleading, since it suggests that the direct realist is asserting that my seeing the squirrel is unmediated, as though I somehow directly apprehend the presence of the squirrel. This is obviously not what the direct realist intends. The direct realist acknowledges that my seeing the squirrel is causally mediated by the light reflected by the squirrel. Were it not for the light it reflects, I would not see the squirrel. Similarly, my perceiving the squirrel is causally mediated by the retinal images produced by the light the squirrel reflects. Again, if no such retinal images were produced in me, I would not see the squirrel. Still, it seems right to say that I do not see these things. I do not see the light reflected by the squirrel, nor do see my own retinal images.1 What I see is the squirrel. And though my seeing the squirrel is causally mediated by reflected light and retinal images, I do not see them.

According to the direct realist, my own mental states have a similar status in perception. Seeing the squirrel clearly produces in me some mental state, the experience of seeing the squirrel. And my seeing the squirrel at least causally mediates my seeing the squirrel. Yet, according to the direct realist, it is the squirrel I see, and not my own perceptual experience of it.

One way to interpret the disagreement between the direct realist and the sense-data...

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1Sometimes we do see the light reflected by objects, for example, when you see the light reflected by the shiny chrome bumper of a car. Still you don’t see most of the light reflected by the bumper that causally mediates your seeing the bumper.
Theorist is as a disagreement about the content of perceptual experience. The sense-data theorist maintains that, in the first instance, what I am confronted with in the content of my visual experience is not the squirrel, but rather some mental object, my own squirrelly sense data. I perceive that I have certain squirrelly sense data; I must infer that there is therefore a squirrel before me. The direct realist denies this. According to the direct realist, it is the squirrel I am confronted with in the content of my perceptual experience. I perceive that there is a squirrel before me, not that I have squirrelly sense data—or at least not just that I have squirrelly sense data. My perceptual experience comes to me interpreted for how things stand in the world, and not (or at least not just) how things stand in my own mental life.

I think that underlying the disagreement over whether the squirrel turns up in the content of my visual experience, as opposed to my own sense data turning up in the content of my experience, is a more fundamental disagreement over how to think about the content of experience. The sense-data theorist thinks of perceptual experience in metaphysical terms, as mental entities with intrinsic phenomenal properties that populate the mind. On this view the content of experience is literally the content of the mind, the mental entities that populate the mind. On this view, it is some sort of category mistake to suppose that a squirrel could turn up in the content of perceptual experience. It’s absurd to suppose that a squirrel—the furry critter 30 feet in front of me—might turn up among the mental objects that populate my mental life. At most, there could only be some mental proxy for the squirrel among the contents of my experience, my squirrelly sense data. On this view it is natural to think of my perceiving the squirrel as indirect.

By contrast, the direct realist construes the content of experience as its representational content—as what gets represented. The content of my perceptual experience is, at least in part, its representational content. What turns up in the content of my visual experience is what gets represented in my visual experience. There is no absurdity in supposing that a squirrel gets represented by my experience. Indeed, the absurdity is in supposing that what gets represented are mental entities, that in the first instance my visual experience represents its own intrinsic character.

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2 This is not the only way to understand the disagreement between the direct realist and the sense-data theorist. Snowdon [21], for example, interprets it as a disagreement about whether perceivers can make demonstrative judgments about physical objects.
So the direct realist's claim that I see the squirrel directly is to be understood as the claim that the squirrel is what gets represented in the content of my visual experience. I see that there is a squirrel before me. The light reflected by the squirrel, the retinal images it causes in me, and the mental states it causes in me, though these causally mediate my seeing the squirrel, these do not get represented in my experience. It seems clear that perception is direct in at least this respect. This is clearly the right characterization of what gets represented in perception.

Now it might be that perceptual experience is populated by mental entities with intrinsic phenomenal properties, which would constitute some sort of non-representational content. And it may be that, in the first instance, what we are confronted with in perception are these mental entities. We are directly acquainted with these entities in the sense that our minds are populated with them. We are certainly not directly acquainted in this way with any non-mental objects. Whether we are directly acquainted in this way with anything at all seems to me to be a genuine point of disagreement between the direct realist and the sense-data theorist.

For our purposes, however, we can bypass this controversial issue. Regardless of whether perceptual experience has some sort of non-representational content that we are immediately confronted with, it clearly does have representational content. Though it might not do justice to the point of disagreement with the sense data theorist, the direct realist is clearly right that I see the squirrel directly insofar as I just see that there is a squirrel before me. The representational content of my perceptual experience is that there is a squirrel before me. The representational content of my experience is not that I have squirrelly sense data, from which I would have to infer—and thus know indirectly—that there is a squirrel before me.

The view I want to argue for here is that linguistic understanding is direct in this respect in which my seeing the squirrel is uncontroversially direct. That is, my seeing the squirrel is direct insofar as the squirrel gets represented in my visual experience. I see that there is a squirrel before me, not that I have squirrelly sense data. That there is a squirrel before me is part of the content of my visual experience. It is not a post perceptual inference I must draw from seeing something else (viz., that I see squirrelly sense data). I claim that it is in this respect that our hearing what speakers say is similarly direct. When you utter the sentence 'Bill Clinton is a Democrat', I just hear what you say—I hear the content of
your utterance. The content of my auditory experience is not simply that you uttered that sentence. The content of my auditory experience is that you said that Bill Clinton is a Democrat. My auditory experience comes to me interpreted, not for the words you utter, but also for the content of your utterance. That you said that Bill Clinton is a Democrat is not some post-perceptual inference I draw from what I hear. That you said this is already part of the content of my auditory experience.

It might seem a bit odd to suppose that I literally hear what you say, if this is to be cashed out as hearing the content of your utterance. One might ask: what does content sound like? This is surely very puzzling. A less puzzling way of putting the point is to say that when I hear you utter the sentence ‘Bill Clinton is a Democrat’, I hear your utterance, but I hear it as having a certain content.

2.2 The Perceptual View of Linguistic Understanding

So far I have been suggesting that we directly perceive the content of speakers’ utterances, perceive them as having that content, in the same way (or at least one way) that the direct realist insists we directly perceive objects in the world. I have yet to say how this amounts to an account of linguistic understanding, a view about what the epistemic view sought to provide an account of.

In order formulate the view about linguistic understanding, it will be useful to distinguish understanding language—understanding a word, phrase or sentence—from understanding what a speaker says. Though you understand the sentence ‘cats are cute’, for example, you might nevertheless fail to understand what I say by uttering it, perhaps mistakenly taking me to have said that rats are cute. You understand the sentence I uttered, but you fail to understand what I said by uttering it. This is a kind of competence-performance distinction. Your understanding of the sentence is part of your competence as a speaker; your understanding what I say is performance—an exercise of that competence. Understanding language is only part of your competence, because being competent in a language requires not only the ability to understand language, but also the ability to speak it. Here we are concerned only with understanding language not speaking language.

The (weak) epistemic view is, in the first instance, a view about understanding language: understanding language consists in possessing certain propositional knowledge. But it also
commits us to the following view about how we understand what speakers say. When I utter the sentence ‘Al Gore won the Democratic primary’, you hear that I utter this sentence—and according to the epistemic view—you know that it has a certain meaning. From your knowledge of what sentence I uttered and your knowledge of its meaning you infer what I said, viz., that I said that Al Gore won the Democratic primary. This makes understanding what I said an inferential process. Call this the inferential picture of understanding what is said. Must the process be inferential? If the background knowledge merely causes you to form a belief about what I said, in a way that does not constitute an inference, then the background would not provide any justification for your belief about what I said. So, if you are to come to know what I said, then it seems that the background knowledge must figure as a premise for an inference. The doxastic view yields the same inferential picture, but it is background beliefs, not necessarily knowledge, that constitute the basis for the inference.3

According to the perceptual view, understanding what a speaker says is a perceptual process, not an inferential one. You don’t merely hear the sentence I utter and infer what I say. You literally just hear what I say—you hear the content of my utterance. Again, the more perspicuous way of putting the point is to say that you hear my utterance, but you hear it as having a certain content. That is, suppose that a speaker y asserts that p by producing a token of a sentence S, then:

The Perceptual View (What is Said) x understands what y said by perceiving y’s token of S as expressing p.

I will sometimes also talk about understanding a word or sentence token by perceiving it as having a certain meaning. This is the natural way to characterize some of the phenomena I want to discuss. But I want to warn that it suggests (though I think merely suggests) something I will explicitly deny: that the meanings of words are represented in language cognition. I’ll explain this shortly. For now, all I want to try to convince you is that linguistic understanding is some kind of perceiving-as phenomenon.

This perceiving-as phenomenon is exhibited by the familiar duck-rabbit figure and the Nekar cube. The duck-rabbit figure can be seen either as a duck or as a rabbit. This is

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3 Of course, the proponent of the epistemic view is not committed to supposing that understanding what someone says is like figuring out an arithmetic problem. The inference, like the background knowledge or beliefs, is a tacit one. It is not an inference we need to consciously think about when we listen to others speak. Such a view would clearly be at odds with the phenomenology of speech perception.
not a matter of knowing or believing that the figure looks like a duck or looks like a rabbit. You can believe that the duck-rabbit looks like a rabbit without seeing it that way. Such instances of things that can be perceived as one thing or as another are rare. But these rare cases reveal a pervasive feature of perception: when we perceive objects, we typically perceive them in some way—as a certain kind of thing. Our perceptual experience of the world is not raw data, but is rather the output of perceptual systems. Perceptual experience comes to us (to conscious awareness) already interpreted.

In claiming that you understand an utterance by perceiving it as having content, I am claiming that your perceptual experience of it similarly comes to you (to conscious awareness) already interpreted, specifically for the content of the utterance. It is a familiar point that competent speakers don’t hear language as unintelligible noise—in the way one might hear a foreign language. You hear a word as that word, a sentence as that sentence. I claim that you similarly hear a sentence as having content, as expressing a certain proposition.

This is my account of how we understand what a speaker says. Recall, in terms of the competence-performance distinction, this is performance. To understand language—linguistic competence—is to be in the cognitive states that are the causal basis for this performance, that is the causal basis for the capacity to understand what speakers say. This much is true on the epistemic and doxastic views.

The Perceptual View (Language) $x$ understands $\alpha$ iff $x$ is in the state that is the causal basis for the ability to understand what a speaker says by uttering $\alpha$.

However, I claim that the cognitive states that underwrite our ability to understand what speakers say—this perceptual capacity—do not constitute propositional knowledge or beliefs, because those states do not play the right sort of role in our psychology. I will say more about this when I go on to explicate the notion of perceiving-as.

An important qualification is in order. I do not offer the perceptual view as an analysis of the concept of understanding language and understanding what is said. I do not claim that the perceptual view is true as a matter of conceptual necessity. I offer it as an empirical claim about how speakers of a language understand language, as a matter of contingent fact. Specifically, I am claiming that this is how native speakers or similarly competent speakers understand language. It is clear that the way in which we understand a second language

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4This point is made by Evans.
can be quite different from the way we understand our native language, and I make no claim about the nature of second-language understanding. What I want to turn to now is some empirical evidence from cognitive neuropsychology that supports this empirical claim I am making.

2.3 Word Deafness and Meaning Deafness

We don't hear our native language as uninterpreted noise or see language as uninterpreted shapes. We perceive a word as that word, a sentence as that sentence. Not only does this accord with the phenomenology of language perception, there is a neurologic syndrome in which this capacity is impaired, an aphasia called word deafness (sometimes pure word deafness). An aphasia is a neurologic language impairment, typically caused by a brain lesion (e.g., a stroke). Word deafness is a specific kind of aphasia that impairs a speaker's ability to understand spoken language but preserves the ability to read, write and speak, and what is most striking the ability to hear and identify other kinds of environmental sounds (e.g., the ring of a bell or a bird's chirping). What is striking about such cases is how well the word-deaf speaker can hear without understanding. In some cases, word-deaf speakers can identify the voices of people they know, can tell whether a speaker is male or female, and can even tell whether they speak with a foreign accent.

This is what makes it word deafness, rather than the ordinary sort of deafness. Word deafness is neither simply a global impairment of language, nor a global impairment of hearing. It is an impairment specifically of the ability to recognize spoken words. In word-deaf speakers, what seems to impaired is perceptual processing that is specific to word recognition. The word-deaf speaker can still hear an utterance of a word, but doesn't hear it as that word. Our perceptual experience of language, unlike that of word-deaf speakers, comes lexically interpreted—interpreted for the words we hear. But there is evidence to suggest that our perceptual experience of language is also semantically interpreted—interpreted for the meanings of those words.

5It is unclear whether word deafness is due to an impairment of distinctively linguistic perceptual mechanisms (a word-recognition module or some such thing). One explanation that has been offered is that word-deaf speakers cannot make temporally fine-grained auditory discriminations; they do not hear as distinct acoustic features that occur in quick succession. In cases of word deafness, the theory goes, this discriminatory ability is impaired just enough to impair word recognition, but not enough to impair recognition of other kinds of sounds. And word-deaf speakers do indeed seem to be worse at making temporally fine-grained auditory discriminations than ordinary speakers.
Again this is evident when the capacity is impaired. There is a very rare form of aphasia called meaning deafness, originally described by Bramwell (1897).\(^6\) Bramwell’s patient was a native speaker of English whose ability to understand spoken English was impaired by a stroke she suffered during a pregnancy. Her own speech was normal, though she would occasionally mis-speak (paraphasic errors). She could also read and write very well, though she had some difficulty reading long sentences and her writing contained some grammatical errors.\(^7\) Yet her ability to understand spoken English was severely impaired, well out of proportion to her other minor language problems. This much she had in common with word-deaf speakers. And, like word-deaf speakers, she could recognize non-linguistic sounds she heard. Bramwell records a remark she made: “Is it not a strange thing that I can hear the clock ticking and cannot hear you speak? Now let me think what that means.” [10, p.250]

Bramwell’s patient could still repeat utterances, could spell aloud words she heard, and could even write from dictation—all without understanding what she heard.\(^8\) Word-deaf speaker’s can’t do any of this. Bramwell’s patient was in the extraordinary position of being able to hear and write down a sentence someone uttered without understanding it, but—having written the sentence down—she could then read what she had written and thereby come to know, albeit indirectly, what the speaker had said. Bramwell reports:

... she could write down words and sentences which she did not understand (when spoken) and could then understand them after she had written them down. I asked her, for example, the question, “Do you like to come to Edinburgh?” She did not understand it. I then asked her to repeat after me. She

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\(^6\)Meaning deafness is extremely rare. Though this case was described just over one hundred years ago, it is still the clearest case in which auditory comprehension is impaired while repetition, spontaneous speech, reading and writing to dictation are spared.

\(^7\)Strokes are a messy business. They almost never neatly impair one ability leaving others completely unaffected. The kind of intervention necessary to affect a clearer dissociation, a properly placed surgical lesion, is barred by the serious ethical constraints on brain research. So we must rely on the evidence nature makes available to us.

\(^8\)It is unclear from Bramwell’s description of his patient’s ability to write from dictation whether she was merely doing so phonetically. He does say that she was able to write down his utterance of “Do you like to come to Edinburgh?”, and having done so could read it and understand it. If she really was able to write down ‘Edinburgh’, then she was not merely spelling it phonetically, which (in the regional dialect) would perhaps yield a phonetic spelling something like ‘Edinbura’. But Bramwell does not comment on whether she produced such a phonetic spelling. I suspect from the detail of his description of other aspects of her speech that he would not have failed to remark on this if it were the case. But even spelling a word phonetically requires the ability to match phonemes with appropriate graphemes, even if not the right grapheme to get the correct spelling of the word. This is no trivial task, and it is something that word-deaf speakers, unlike meaning deaf speakers, cannot do.
did so without hesitation. I then asked her to write down the words she had just said. She did so without the words having to be repeated a second time, and she then undoubtedly understood the question. ([10], p. 255)

So she did have a route to understanding other speakers, but clearly not the normal route. How are we to explain how she can do all this without understanding what she hears? How can she hear an utterance of a sentence and write it down without understanding what was said?

This phenomenon of meaning deafness is not naturally characterized as a lack of knowledge (or belief). Bramwell’s patient knows that the doctor uttered the sentence ‘Do you like to come to Edinburgh?’, since she is able to write it down. At least, if we insist that she doesn’t know that this sentence was uttered it is something of a mystery why she writes it down. Moreover, she knows what the sentence (type) means—if this is indeed knowledge—since she is able to understand it when she reads it. Now, she doesn’t know, at least initially, what that particular (token) utterance of it means. But this lack of knowledge is a consequence of her deficit, not what her deficit consists in. As we have seen, she can come to know the meaning of the utterance by writing down what she hears and reading it. This provides a way of working around her impaired ability to understand speech, but it does not eliminate it. The fact that she has this route to understanding does not mean that her understanding is unimpaired. She still doesn’t understand spoken language in the normal way, the way we do it. Meaning deafness is an impairment of this normal process for getting to the knowledge of what a particular utterance means.

In accordance with the inferential picture, we might suppose that meaning deafness is not a lack of knowledge, but an inability to infer what a speaker says—an inability to apply the background knowledge of meaning. However, this gives rise to some puzzling questions. Why can’t she draw the necessary inference? Bramwell’s patient wasn’t less intelligent, less able to reason than she was before her stroke. Why does she have trouble making this sort of inference but not others?

This is not meant to be a knock-down argument against the epistemic and doxastic views and the inferential picture. But it does suggest that the phenomenon of meaning deafness is at odds with the way we ordinarily think of knowledge, belief and inference.

By contrast, the perceptual view provides an obvious and more natural account of meaning deafness. Bramwell’s patient suffers from a perceptual deficit, hence the appropriateness
of characterizing her condition as meaning *deafness*. Though she can still hear language, she no longer hears it as having meaning or content. She is able to recognize words and sentences, as is evident from her ability to write to dictation. She hears a word as that word, hears a sentence as that sentence. However, she does not hear a word as having its meaning, a sentence as having its content. Her auditory experience of language, unlike ours, does not come interpreted for linguistic meaning or content.

This sort of impairment is characteristic of perceptual capacities. We see a similar inability to interpret perceptual input in the case of agnosia. An *agnosia* is a neurologic impairment of the ability to recognize objects that is not merely due to a global impairment of vision.\(^9\) Agnosic patients can see objects without recognizing them. The various kinds of agnosia are individuated by the kind of object that cannot be recognized, and this can be very specific. Patients with prosopagnosia, for example, cannot recognize faces, though they can recognize other sorts of objects. In the most interesting cases of agnosia the inability to recognize objects is not attributable to a loss of visual acuity. Many agnosics can see objects quite clearly without recognizing them. Either the recognitional mechanisms in perception that do the recognizing are impaired, or the information is not getting to these recognitional mechanisms.

How do we know that the impaired recognition is not merely due to a loss of visual acuity? In a case described by Ratcliff and Newcombe [19], an agnosic patient was able to see a picture of an anchor that he misidentified as an umbrella. He could see the anchor, but didn’t see it as an anchor. Even though he understood what an anchor is\(^{10}\) and could see the picture of the anchor well enough to draw a copy of it, he was unable to identify the picture as an anchor. Yet his drawing was accurate enough that *we* can identify it as an anchor from the drawing. So the information the patient gets from perception that goes into producing the drawing is sufficient to allow the object to be identified (by *us*). But the patient is unable to use that information to identify it himself. The recognitional mechanisms in perception are unable to do for the agnosic person the work that they do for *us*, even though the person can still see well enough (in terms of visual acuity) to accomplish

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9Word deafness and meaning deafness, because they are language impairments, gets categorized as an aphasias, and consequently is put in the same category as certain kinds of neurologic speech impairments. But they have much more in common with agnosia than with neurologic speech impairments.

10His performance at identifying objects from description was not completely unimpaired, which suggests some conceptual impairment. But it was not substantial enough to explain his inability to recognize objects. His inability to recognize the anchor was not a matter of not knowing what an anchor is.
the task.

What the phenomenon of meaning deafness suggests is that the same sort of impairment is at work. Bramwell's patient is getting enough information from perception to allow for the determination of the content of an utterance, but she is unable to utilize this information auditorily. We know that perception is providing her with enough information, because she can write down the words she hears, and this would provide someone else with enough information to determine the content of the utterance. Indeed, she can do this herself, though she just cannot do it directly from what she hears. So the information she gets from auditory perception that goes into her writing to dictation is sufficient to allow the content of the utterance to be determined. What is impaired in her is the perceptual mechanism that, in normal speakers, does the determination of the content of an utterance.

2.4 Conclusion

The phenomenon of meaning deafness is very naturally characterized as a perceptual deficit. The meaning deaf speaker can hear words, but—unlike normal speakers—doesn't hear them as meaningful, doesn't hear them as having their particular meanings. If this is right, then the semantic interpretation of language is a perceiving-as phenomenon—we understand what speakers say by perceiving their utterances as having meaning or content. Our perceptual experience of language comes to us interpreted for the meanings of words and for the content of sentences we hear.

We can try to characterize this deficit on the model of knowledge and inference, either by trying to refine our description of precisely what the speaker doesn't know or by attributing to the speaker very specific inferential deficits. But this is a less natural way to characterize the phenomenon. The meaning deaf speaker's deficit doesn't seem to consist in a lack of knowledge, since even if you convey to her what a particular utterance means, she still doesn't hear it that way. Her deficit is an impairment of the normal process of acquiring that knowledge. So on the knowledge-inference model, it seems we have to characterize this deficit as an inability to draw certain inferences. But this is a very puzzling way to

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11 One qualification here is that determining the content of an utterance may require knowledge of context. A loss of that information will prevent us from determining the content of the utterance. But it isn't a loss of information about context that accounts for her inability to understand, since she was unable to understand sentences the content of which was not context dependent.
characterize it: why can’t the meaning deaf speaker draw the necessary inference, given that she has all the relevant knowledge and isn’t any less intelligent than she was before developing the deficit?

To make this seem less odd an idea, we might suppose that this is a particular kind of inference, a perceptual inference, the capacity for which can be impaired without an impairment of general intelligence. I have no objection to this, since it amounts the the view that I have been advancing—that our capacity to understand language is a perceptual capacity. If someone wants to think of perception—specifically of the computational processes that underlie our perceptual capacities—as a kind of inference, I have no deep objection to raise to this. Although this is bound to be misleading, since perception is certainly not what we ordinarly think of as inference, namely a bit of reasoning that a person engages in. More important for my purposes than the negative claim that linguistic understanding isn’t inferential (even in some very broad or perhaps technical sense) is the positive claim that the capacity to understand language is a perceptual capacity. We understand what speakers say by hearing their utterances as having meaning or content.

What I want to do in the next chapter is provide an analysis of the so far unanalyzed notion of hearing utterances as having meaning or content, more generally of perceiving language as having meaning or content. I have suggested that the inability of Bramwell’s patient to hear an utterance as having meaning or content amounts an inability to utilize the information available in perception. In effect I will be elaborating on the way in which the information perception provides about utterances is utilized in normal speakers but not utilized in the meaning-deaf speaker. My account of perceiving utterances as having content will draw on a distinction Dretske draws between the sensory content of an experience and its conceptual content. I’ll need to begin by explaining this distinction and his account of representation in terms of which the distinction is drawn.
Chapter 3

The Perceptual View II: Content & Function

Dretske [6] draws a distinction between the sensory content of an experience and its conceptual content. What I will propose is that what it amounts to for an utterance to be perceived as having a meaning or content is for the perceiver’s perceptual experience of the utterance to have a certain conceptual content, though not the conceptual content you might expect. The upshot will be that the conceptual content of language perception represents, not semantic facts about language, but rather represents the same non-linguistic (for the most part) facts that language itself represents. For example, when you hear an utterance of the sentence ‘Bill Clinton is a Democrat’, the conceptual content of your auditory experience—like the content of the utterance itself—is simply that Bill Clinton is a Democrat, not that the sentence ‘Bill Clinton is a Democrat’ (nor that this particular utterance of it) has such-and-such semantic properties.

This is not to deny that there is some important relationship between the semantics of natural language and language cognition that allows us to understand speaker’s utterances. All I am denying is that the semantics of language is represented by the states that underwrite our capacity to understand utterances. A perceptual analogy is perhaps useful here. There is no doubt an important systematic relationship between the properties of reflected light and the cognitive states that underwrite our ability to see. Nevertheless, the properties of reflected light are not represented in vision. As I suggested in connection with the discussion of direct perception, when I look at a squirrel in the distance I see the squirrel,
not the light the squirrel reflects. It is the squirrel that gets represented in my experience, not the light. Similarly, the view I will defend is that it is the content of sentence that gets represented in language perception, not the semantics of the sentences, not the meanings of words.

A good deal needs to be said about how this is to be cashed out, but the short version is as follows. Dretske draws the distinction between sensory content and conceptual content in terms of his theory of representation. For Dretske, all mental content is representational, so this is not a distinction between representational content and some sort of non-representational content. Rather, it is a distinction between two kinds of representational content. According to Dretske, to represent x as being F is to have a certain function. Think of this as the role that a state is supposed to play in some system. Specifically, to represent x as being F is to have the function of indicating (equivalently, conveying the information) that x is F. The difference between the sensory content of a perceptual state and its and conceptual content is a difference in what the state derives its indicative function from. A certain state of the visual system has a certain basic function qua state of the visual system, the function of providing whatever information vision has evolved to provide. This constitutes the sensory content of the perceptual state. But how we see objects, what we can see them as, is not hard wired. A perceptual state can also acquire an indicative function that is not derived from its basic role as part of the perceptual system. We can learn to perceive or recognize things our visual system, for example, was not hard wired to perceive or recognize (e.g., particular people, carburetors, clowns, and so on). When your perceptual state acquires the function of indicating that x is F, this constitutes conceptual. This is what it is to perceive x as being F.

The view I am proposing is that a speaker perceives an utterance as having a certain content in virtue of the following: the kind of perceptual state the utterance causes in you has acquired a certain indicative function—has come to have a certain conceptual content—over and above the function the state has qua a state of your auditory system, over and above its sensory content. This is what it is to perceive as having meaning or content. However, this conceptual content represents, not the semantics of language, but rather what language itself represents—viz., the mostly non-linguistic world—because that's what language cognition has the function of providing us with information about.

That is the short version of the story. But more needs to be said about this account.
of representation, and in particular about what it is to *indicate* (convey the information) that $x$ is $F$ and what it is to have the *function* of indicating this. I will proceed as follows. I'll explain Dretske's account of representation, which analyzes representation in terms of function. But I'll leave the notion of function itself unanalyzed until §3.5. I want to show what work the concept is supposed to do in my theory of understanding before trying to say how it should be cashed out.

### 3.1 Indication & Representation

Cummins has characterized Dretske's notion of indication amounting to *covariance* ([2], Chapt. 6). This is a useful way to think about it. The seat-belt indicator light in your car indicates that your seat belt is unfastened by “covarying” with your seat belt's being unfastened. If the light is working properly, it will not be illuminated unless your seat belt were unfastened. When the light isn’t working properly, when would be on even if your seat belt were fastened, it fails to indicate that your seat belt is unfastened. We can take indication to be a relation that obtains between events that are counter-factually related in the right sort of way. In particular, it is a relation that obtains between events $A$ and $B$ under the following conditions:

**Indication** An event $A$ indicates that an event $B$ occurred iff $A$ would not have occurred unless $B$ had.

This relation of indication can obtain between particular **events** or between event kinds. For example, we can say that the indicator light’s being illuminated on a particular occasion indicates that your seat belt is unfastened. What this amounts to is that the indicator light would not be illuminated on just that occasion unless your seat belt were unfastened. This is consistent with supposing that the light might be illuminated on another occasion even if your seat belt is not unfastened. But we can also say something stronger, namely that the light’s being illuminated—that kind of event—indicates that your seat belt is unfastened. What this requires is that the light would not be illuminated, not only on that particular occasion but on other occasions, unless your seat belt were unfastened.

A couple of other terminological points will be useful. First, Dretske talks of **states** indicating that such-and-such. For example, a state $S$ of an indicator $N$ indicates that $x$ is $F$. But we needn’t augment our ontology here to include both events *and* states, since
what does the indicating is N’s being state S. And this is just another event. That is, to say that S indicates that x is F amounts to saying N’s being in state S and x’s being F are counter-factually related in the following way: N would not be in state S unless x were F. Second, Dretske also talks interchangeably of indicating that x is F and carrying the information that x is F. To say that a state S of N carries the information that x is F is just to say that it indicates that x is F. Both locutions are useful, and following Dretske I will use them equivalently.

Indication and information are proto-semantic notions. They are proto-semantic in that they fall short of genuine representation. Getting information about an object or indicating something about it is like representing it—the information that x is F and a representation of x as being F are both “about” x’s being F. But indication (information) differ from representation in at least three important respects.

First, indication is factive, whereas representation is not. To say that the smoke in the distance indicates that the house is on fire is to say that there would be no smoke (at that particular place and time) unless the house were on fire. It follows from this that the smoke in the distance cannot indicate that the house is on fire when in fact the house is not on fire. Why? Because if it turns out that there is smoke when the house is not on fire—say, because someone is burning leaves—then ipso facto it isn’t true that there would be no smoke unless the house were on fire. As Dretske puts it, there is mis-representation but not mis-indication.

A second and related difference between representation and indication is that objects can be represented that do not exist, but nothing can be indicated about an object that does not exist. That there are presents under the tree cannot indicate that Santa Claus has visited. For the presents under the tree to indicate that Santa Claus has visited requires that there would not be presents under the tree unless Santa Claus had visited. Santa Claus does not exist. So that there are presents under the tree cannot depend on Santa Claus’ having visited, and hence cannot indicate that he visited—or, indeed, anything else about Santa Claus. Nevertheless, that Santa Claus does not exist is no bar to representing Santa Claus as having visited, say, by a small child’s believing that he visited.

A third difference is that representation is more fine-grained than indication. Whereas x can be represented as red without thereby being represented as colored, nothing can indicate that x is red without thereby indicating that x is colored. Suppose N’s being in
state $S$ indicates that $x$ is red. That is, $N$ would be in state $S$ only if $x$ were red. But then it’s also true that $N$ would be in that state only if $x$ were colored, since $x$ cannot be red without being colored. But that’s just to say that $N$’s being in state $S$ indicates that $x$ is colored. More generally, if $N$ indicates that $x$ is $F$, then it also indicates any property $G$ that $x$ would not have unless it were $F$. This is not true of representation.

Not only do indication and information differ from representation, they are far more pervasive. Since all that is required for information to be conveyed is that the states of objects covary—that they are counter-factually related in the right way—any causal regularity will do (even non-causal regularities). That the book fell to the ground when the bookshelf was bumped indicates that there is a gravitational field present in the room, since the book would not have fallen if there were no gravitational field present. That there is smoke billowing in the distance (at that place and time) indicates that the house is on fire, because (let’s suppose) there would be no smoke billowing in the distance (right there and just then) unless the house were on fire. But the smoke does not represent the burning house, and the falling book does not represent the gravitational field.

According to Dretske, representation consists, not in indicating something or carrying certain information, but rather consists in having the function of indicating something or, equivalently, consists in having the function of carrying certain information:

**Representation** A state $B$ of a representational system $R$ represents $x$ as being $F$ just in case $B$ has the function of indicating that $x$ is $F$ (has the function of carrying the information that $x$ is $F$).

Identifying representation with having the function of indicating something seems to provide just what we need to get an account of genuine representation. It explains why the falling book and the smoke don’t count as representations of what they indicate or carry information about. Though the falling book indicates the presence of a gravitational field, it doesn’t have the function of doing so, similarly for the smoke. Moreover, it accounts for the possibility of misrepresentation, the possibility of representing things that do not exist, and the fine-grainedness of representation. Though $R$ cannot indicate that $x$ is $F$ when $x$ is not $F$, it can have the function of indicating that $x$ if $F$ even when $x$ is not $F$. Similarly $R$ can have the function of indicating that $x$ is $F$ even when $x$ does not exist. This is just to suppose that $R$ can have a function it fails to perform. This is how we get misrepresentation.
and representation of things that do not exist. Moreover, though $R$ cannot indicate that $x$ is red without also indicating that $x$ is colored, it can have the function of indicating that $x$ is red without having the function of indicating that $x$ is colored. Not all the information a state conveys is information it has the function of conveying. This is how we get the fine-grainedness of representation.

More than just getting the behavior of representations right, what is attractive about analyzing representation in terms of having a certain function it that it provides a way of giving a naturalistic account of representation, since we have a pretty good idea of how to give a naturalistic account of the notion of function. There is considerable debate about exactly how to do this, but broad agreement that some naturalistic account of function can be given. This is of course an enormous issue in its own right, and I cannot hope to give an adequate treatment of it here. Nevertheless, I do want to say something about how function arises in cognitive systems, since this is central to the account I want to give of the nature of the cognitive states that realize our understanding of language.

For now, I am going to take the notion of function for granted. I'll take it for granted that we can give some sort of naturalistically respectable account of the idea that cognitive states, like other biological phenomena, have functions they are supposed to perform. The obvious thought is that cognitive systems have functions in virtue of having been evolutionarily selected for them, though Dretske focuses on learning as a source of function in cognitive systems, rather than on natural selection. I'll turn to this in §3.5.

### 3.2 Perceiving Semantics

In terms of this account of representation, Dretske tries to capture the distinction between the **sensory** content of experience and its **conceptual** content. Sensory content is supposed to be what we might ordinarily think of as the qualitative content of experience. But Dretske does not conceive of sensory content as a kind of irreducibly qualitative content, some sort of intrinsic phenomenal property of experience. Dretske's project is to try to make it plausible that all mental content is representational, even what we might think of as the phenomenal or qualitative aspects of perceptual experience. Since having representational content consists in having the function of indicating something, the distinction between sensory content and conceptual content is drawn in terms of what determines the function
of a perceptual state.

The sensory content of a perceptual state is determined by its function as a state of its perceptual system. That is, the visual system, for example, evolved to provide us with certain kinds of information about the world, presumably about the distance, size, shape, orientation, etc. of distal objects. The visual system thus has the function of providing us with this kind of information. A particular state of the visual system has the function of providing us with some particular information of this kind, a function it has qua state of the visual system. But having the function of carrying this information—indicating something about the world—amounts to representing the world. This is the function, and thus the content, that a perceptual state inherits from the perceptual system of which it is a part, and ultimately from the evolutionary history of that perceptual system.

But the capacity of our perceptual systems to represent the world is not limited to what our perceptual systems have evolved to indicate about the world. Our perceptual systems are not completely hard wired. We have the ability to learn to recognize, identify, and discriminate kinds of things properties or properties of things that our perceptual experience presumably has not evolved to have the function of indicating. One can learn to recognize a carburetor—come to see it as a carburetor—though presumably one’s perceptual experience has not evolved with the function of indicating that something is a carburetor.

By learning to recognize objects and learning to make perceptual discriminations, our perceptual states come to acquire conceptual content. The perceptual state comes to have the function of indicating something over and above what it is has the function of indicating qua state of its perceptual system. You learn to recognize a carburetor—you come to see them as carburetors—when your perceptual experience acquires the function of indicating that it is a carburetor you are seeing, thus representing it as a carburetor.

This distinction between sensory and conceptual content provides an account of the difference between merely seeing the carburetor and seeing it as a carburetor. The perceptual experience of person who (merely) sees the carburetor has a certain sensory content. This person’s experience represents the carburetor, but doesn’t represent it as such, doesn’t have the function of indicating that it is a carburetor. But your perceptual experience can acquire this function when you learn to recognize a carburetor. I’ll say more in §3.5 about how learning can confer such a function on perceptual experience.

What is attractive about this idea is that it helps us to make sense of this phenomenon.
of perceiving-as, in a way that we cannot in terms of a sense-data view about the content of perceptual experience. If we suppose that your visual experience of the carburetor represents the carburetor in virtue of having intrinsic phenomenal properties—say, by being “arranged” in a certain way in your mental life—and that these intrinsic phenomenal properties constitute the content of your experience, it is difficult to see how you might come to literally see it as a carburetor, as opposed to merely believing that it is. Of course, we can easily imagine that you believe that what you are seeing is a carburetor, when you are presented with phenomenal properties of the right sort. But if the content of your perceptual state is constituted by its intrinsic phenomenal properties, then for there to be a difference in the content of your perceptual experience itself—for you to see the carburetor as such—we would have to suppose that when you learn to recognize carburetors there is some difference in the phenomenal character of your perceptual experience of it. But this doesn’t seem to accurately reflect the phenomenology of recognition. The phenomenal character of seeing a carburetor isn’t qualitatively different after you learn to recognize them.

This is precisely what Dretske’s view seems to get right. The phenomenal character of your experience is the same. Both before and after you learn to recognize carburetors, your experience has the same sensory content, corresponding to the function your perceptual states have as states of the visual system. What changes is the conceptual content of your experience. When you learn to recognize a carburetor, your perceptual experience comes to represent it as such. But this is not in virtue of some change in the phenomenal character of your experience. Rather, what happens is that your perceptual experience acquires the function of indicating that it is a carburetor you are seeing. It is a change in the function of your perceptual experience, in the role it plays in your psychology (again, more on this in §3.5).

This distinction between sensory and conceptual content applies straightforwardly to language perception. Consider word recognition. When you hear an utterance of the word ‘filibuster’, for example, the utterance puts your auditory system in a state $f$. This state has a certain sensory content that is determined by the function $f$ has qua state of your auditory system. This constitutes the representation $f$ as a sound, like any other sound. In addition, however, this state $f$ also has a certain conceptual content that represents the utterance as an utterance of the word ‘filibuster’. This is the acquired function $f$ has of indicating that the sound is an utterance of the word ‘filibuster’. This is the difference between you and
the word-deaf speaker. The word-deaf speaker hears the word, but doesn’t hear it as that word. The state produced in the word-deaf speaker has the sensory content, but not the conceptual content; it no longer has the acquired function of indicating that that word was uttered. The auditory state no longer plays that role in the speaker’s psychology.

Hearing a word as having a meaning is a further bit of conceptual content that your auditory state acquires. By analogy with the case of word recognition, we might suppose that you hear the utterance of the word ‘filibuster’ as having its meaning, call it $\phi$, when $f$ has the acquired function of indicating that the utterance means $\phi$—when your auditory experience represents the utterance as having that meaning. This, we might suppose, is the difference between you and the meaning-deaf speaker. The perceptual state an utterance of ‘filibuster’ produces in a meaning-deaf speaker no longer has the function of indicating its meaning or content. The auditory state no longer plays that role in the meaning deaf speaker’s psychology.

But the idea that your perceptual state has conceptual content that represents the meaning of a word or the content of a sentence gives rise to a *prima facie* difficulty. Crispin Wright [24] has argued that the capacity ordinary speakers have to understand language does not support attributing to them beliefs about the meanings of words (tacitly held or otherwise), because ordinary speakers lack the concepts necessary for possessing such beliefs. Even the most dim-witted speaker of English can understand the sentence ‘All politicians are corrupt’, for example. Yet it is beyond the conceptual resources of many ordinary speakers to grasp the semantics of quantifiers like ‘all’, which employs such notions as logical form, free and bound variables, domains of quantification, and so forth. Even if we were inclined to attribute to speakers beliefs they don’t articulate or consciously entertain, the epistemic view invites us to attribute to ordinary speakers beliefs they lack the conceptual resources even to *understand*.

The proposal that the auditory experience of language has conceptual content that represents the meanings of words would seem to have this problem in spades. To understand an utterance of ‘all politicians are corrupt’, the hearer’s auditory experience would have to have conceptual content that represents ‘all’ as a universal quantifier, represents it as having that meaning. Just as Wright worried, this view seems to require that to understand the utterance of ‘all politicians are corrupt’ requires the esoteric semantic concepts of quantifiers, scope, domains of quantification, perhaps free and bound variables, open sentences, etc.
But, clearly, ordinary speakers do not have such concepts. If we were right to balk at the idea that speakers could have beliefs with this sort of conceptual content, then it *prima facie* it seems even less plausible to suppose that speakers could have perceptual states with such conceptual content. If an ordinary speaker cannot *believe* that the world 'all' has that meaning, how could such a speaker possibly *hear* that it does?

Dretske’s analysis of representation in terms of function provides an attractive way out of this problem, a way of articulating how language can be semantically interpreted within perception in a way that does not require the possession of semantic concepts—without *representing* the meanings of words. When you hear an utterance of the sentence ‘Al Gore won the Democratic primary’ it produces in you a certain auditory state. You understand the utterance in virtue of the fact that this state has a certain conceptual content over and above its sensory content. But the content of this auditory state is not that the sentence ‘Al Gore won the Democratic primary’ has such and such semantic properties, that the name ‘Al Gore’ refers to Al Gore, that ‘won’ predicates the relation of winning, and so on. The content of your auditory experience is simply that *Al Gore won the Democratic primary*. It is in this respect that your auditory experience is semantically interpreted, interpreted for the content of the utterance. On the present account of representation, we can put this by saying that the auditory state the utterance produces in you, call it *GP*, has the function (in your psychology) of indicating that Al Gore won the Democratic primary. Its function is not to indicate the meanings of the words in the sentence, or even that the sentence expresses a certain proposition. This, then, is how I want to cash out the notion of perceiving an utterance as having content:

**Perceiving As**  $x$ perceives an utterance of $S$ as having the content that $p$ iff the state the utterance of $S$ produces in $x$ has the function of indicating that $p$.

This conceptual content does not require esoteric semantic concepts, even the notion of a proposition. It just requires that you know who Gore is, what the Democratic primary is, and what it is to win it. I'm going to qualify this claim shortly, but what I want to stress at this point is that the conceptual content of the *GP* does not represent the semantic properties of language. That's not its role in cognition. It's role is to tell you something about the non-linguistic world, specifically about Al Gore.

This is an instance of what Dretske calls **displaced perception**. Displaced perception
occurs when the semantic content of a state is of one object and its conceptual content is of something else. Displaced perception is at work when, for example, you are watching television. When you watch the presidential inauguration on television, the sensory content of your perceptual state represents the television. But the conceptual content of your experience represents the inauguration. You see, say, that Bush was inaugurated. But you see that Bush was inaugurated (conceptual content), not by seeing the inauguration, but rather by seeing the television (sensory content).

What I am claiming is that sensory and conceptual content come apart similarly in the case of understanding language. When you hear the utterance of ‘Al Gore won the primary’, putting your auditory system in state $GP$, the sensory content of $GP$ represents that utterance. This is your auditory experience of the utterance as a sound, like any other sound. But you don’t merely hear the utterance as a sound like any other. Your auditory state $GP$ also has an acquired conceptual content that represents Al Gore, represents him as winning the Democratic primary. That is, $GP$ has the acquired function of indicating that Gore won the primary. It plays that indicative role in cognition. This is how I want to cash out what I previously glossed as hearing an utterance of a sentence as having a particular content or as expressing a certain proposition.

Why do I say that your auditory state, $GP$, represents Gore’s winning the primary, and not the utterance’s expressing the proposition that he won the primary? I say this because when everything does what it is supposed to do (including not only language cognition but other speakers), the information you get is that Gore won the primary. This is the information that you are supposed to acquire, and this is what $GP$ is supposed to indicate when everything works. For $GP$ to succeed in indicating that Gore won the primary—to succeed in doing what it is supposed to do—requires that state $GP$ be counter-factually dependent on Gore’s winning the primary. That is, you would not be in that state unless Gore won the primary. This won’t happen unless a whole series of events are counter-factually related in the right way. It requires that you would not be in state $GP$ unless the speaker uttered the sentence ‘Al Gore won the Democratic primary’ (you don’t mis-hear the sentence), and that the speaker would not have uttered this sentence unless Gore won the primary (the speaker didn’t lie, wasn’t misinformed, etc.). These events have to be counter-factually related in this way in order to convey the information that Gore won the primary. So $GP$ can only do its job if events in the external world cooperate. But this is
true of perceptual capacities generally.

Consider again the analogy with direct perception. When I look at the squirrel, it is the squirrel I see. I don’t see the light reflected by the squirrel or the images the reflected light produces on the surface of my retina. On the present view about representation, we can put this by saying that the visual state that seeing the squirrel produces in my has the function of indicating something about the squirrel. It doesn’t have the function of indicating anything about the light reflected by the squirrel or about my own retinal images. Light is the medium of perception. Vision exploits the fact that light carries information about distal objects—it utilizes this information to represent those objects. But vision does not represent the fact that light carries this information about distal objects. It is not the function of the visual system to provide us with information about the reflected light that allows us to see distal objects. The function of the visual system is to provide us with information about the distal objects themselves.

Just as vision does not represent the information carried by light, language perception does not represent the semantic properties of language, those properties that go into determining the content of a sentence. Why not? The short answer is that the states that realize our understanding of language do not have that function. The perceptual state that an utterance of a sentence produces in you has the function of indicating something about the world, not something about the sentence uttered. The deeper answer is that the perceptual state the utterance produces in you has been incorporated into your psychology in just that way, because of what it indicates about the world, not because of what it indicates about language (more on this point in §3.5).

The general line I want to push here is that language cognition is not in the business of providing us with information about the semantic properties of language. That is not its function. Its function, like language itself, is to provide us with information about the (mostly non-linguistic) world. The role of the cognitive states that realize our understanding of language is not to make available to the rest of cognition information about the semantic properties the utterances we hear. Their role is to convey to the rest of cognition the very same information that the utterance itself conveys. When you hear and understand an utterance of ‘all politicians are corrupt’ it is no part of the function of the auditory state it produces in you to indicate that the utterance of ‘all’ is a quantifier, or that the sentence has a certain logical form. The meaning of ‘all’ is not represented in cognition. That isn’t
the kind of role that state plays in cognition. Its function is rather to indicate that all politicians are corrupt, the same function the sentence has in the language.

3.3 Compositionality and Understanding

I do not mean to deny that there are cognitive states in virtue of which you grasp the meanings of sub-sentential parts of speech. Nor do I mean to deny that an enormous amount of cognitive computation goes into determining the content of an utterance of a sentence, in accordance with the compositional semantics of the sentence. And I am also happy to concede that this requires complex cognitive states that are systematically related in a certain way to the syntactic and semantic properties of the sentence. What I deny is that these states that figure in the process of interpreting speech represent the meanings those words, that they have the function of indicating what those words mean.

Consider an analogy. We might ask: what does the word ‘some’ represent? The answer is: it doesn’t represent anything. We can put this by saying that it doesn’t have the function of indicating anything, at least not all by itself. That’s not its job. Of course, it does play a role in representation. Though the word ‘some’ doesn’t have an indicative function, the sentences in which it occurs do have an indicative function. The function of the word ‘some’ is to play a certain role determining what the sentences containing it indicate.

I want to say the same thing about the cognitive states underlying our understanding of individual words. Such states play a certain role in a larger representational system—language cognition, and ultimately language as a whole—but they do not themselves represent anything. To give a very crude sketch of this, recall that we supposed that $GP$ is the state that is the auditory state produced in you by an utterance of the sentence ‘Al Gore won the Democratic primary’. I have suggested that this state has the function of indicating that Gore won the primary. That’s what it represents. But I now want to suppose that $GP$ is a composite state consisting of a state $G$ that is produced by utterances of the name ‘Al Gore’ and a state $P$ that is produced by utterances of the predicate ‘won the Democratic primary’. These states play independent roles in cognition, and these roles determine that the composite state $GP$ indicates that Gore won the primary. We can characterize the functions of $G$ and $P$ in terms of how they determine what composite states containing them indicate. As a first approximation, the function of states containing $G$ is
to indicate something about Al Gore, and the function of states containing $P$ is to indicate about someone that they won the Democratic primary.

In short, the functions of $G$ and $P$ is the role $G$ and $P$ play in cognition is the same as the role the name ‘Al Gore’ and the predicate ‘won the Democratic primary’, respectively, play in the English language. Accordingly, my characterization of $G$ as figuring in states that have the function of indicating something about Al Gore can only be a first approximation, since this won’t be true of the cognitive state produced by more complex constructions containing the name Al Gore (e.g., ‘John believes that Al Gore won the Democratic primary’). But our account of this will be parasitic on the right account of the semantics of natural language: whatever contribution the name ‘Al Gore’ is supposed to make to the information conveyed by sentences containing the name, $G$ is supposed to make that same contribution to the information conveyed by the cognitive states produced in you by utterances of sentence containing the name ‘Al Gore’.

### 3.4 Understanding Falsehoods

There is a *prima facie* difficulty for the view I have been putting forward here. Suppose that I utter the sentence ‘Bill Bradley won the Democratic primary’, and you hear and understand it. On the view I have been offering, the auditory state it produces in you, call it $BP$, has the function of indicating that Bill Bradley won the primary. Again, that is to say that the conceptual content of your auditory state is that Bradley won the primary. Since Bradley didn’t win the primary, $BP$ fails to do what it is supposed to do. It fails to indicate that Bill Bradley won the primary, since Bradley didn’t win the primary. Still, if we suppose that $BP$ has the function of indicating that Bradley won the primary, then it misrepresents the way things are. It represents the world as being such that Bradley won—it is supposed to indicate that he did—when in fact he didn’t win. But then this seems to amount to a case of misperception—things are not the way you perceive them to be, not the way your auditory state represents them. But, intuitively, you haven’t misperceived. You correctly heard and understood my utterance of ‘Bill Bradley won the Democratic primary’. No misperception.\(^1\)

In my reply to this worry, I am guided by an analogy with other instances of displaced

\(^1\)This problem was raised by Steve Yablo.
perception, such as watching television. So I want to discuss this sort of case in some detail first, and then draw some conclusions about what to say about the language case.

The view I have put forward is that our perceptual experience of an utterance comes to us already interpreted, and in particular comes to us already interpreted for the content of the utterance. This is not peculiar to language perception. It is true quite generally of our perceptual experience of the world that it comes to us already interpreted. We see objects as objects as objects of a certain kind. When I see the squirrel in the distance, I see it as a squirrel in the distance, not as patches of color on my visual field, as a version of the sense-data theory might have it. The same is true in cases of displaced perception, such as watching television. Your perceptual experience doesn't come to you completely uninterpreted when you watch television. Watching television is not a radically different enterprise from seeing objects and events “in the flesh”. When you watch television, the same perceptual mechanisms are at work to interpret your experience. For example, the way in which you recognize people on television employs the same recognitional mechanisms that are at work when you see them in person.

Let me give an example of the sort of perceptual mechanism I have in mind. We take for granted the ability to recognize people by their faces. And yet someone who suffers from prosopagnosia lacks this ability. Prosopagnosia is a kind of agnosia, a neurologic impairment of the ability to recognize objects (see p. 51), that specifically impairs the ability to recognize people by their faces.² A prosopagnosic might know who Bush is and have seen him many times before and yet not be able to recognize his face, even though she can clearly see the features of his face. The prosopagnosic can see Bush without seeing him as Bush, even when she knows (perhaps by being told) that it is Bush that she is seeing; his face will not look familiar. Unlike the prosopagnosic, we not only see Bush, we see him as Bush. What this suggests is that some kind of perceptual processing occurs in us when we look at familiar faces, but doesn’t occur in the prosopagnosic, such that our visual experience of peoples faces comes to us interpreted for who we are seeing.

Someone who recognizes Bush in person doesn’t have to start from scratch when it comes to the task of recognizing him on television. We don’t see Bush as Bush when we see him in person, and yet see Bush’s image on television as uninterpreted colored patches on the

²Prosopagnosics are often able to identify people by other means, such as recognizing articles of clothing, hair style, girth, and so on.
screen. If watching television didn’t utilize the normal mechanisms for recognition, watching television would be an incredibly difficult thing to do. Face recognition is a very complicated task. It is only very recently that we have figured out how to program computers to do it. And if we had to figure out how to do this from scratch, how to reliably tell which features of the image indicated who the images is of, we would have to solve a very difficult problem in cognitive science just to watch a little television. Of course, watching television is all too easy, because we use the very same perceptual mechanisms to recognize people on television as we do when we see them in person. When you see Bush on television, the very same perceptual mechanisms that underwrite your ability to see him as Bush are at work both when you see him in person and when you see him on television. Indeed most of us recognize Bush, in the first instance, because we have seen him on television or in pictures, not because we have seen him in the flesh. Yet you can develop the same ability to recognize him in any of these ways and still recognize him in person.

When you watch television, then, you don’t merely perceive colored patches on the television screen. Then, the same perceptual mechanisms that normally interpret what you are seeing (e.g., for the identity of who you are seeing) are still at work. Your perceptual experience of the image on the screen also comes to you already interpreted, just as your perceptual experience of local events is. Specifically, your experience of the television image is interpreted for the distal events represented on the screen. For example, if you watched Bush’s inauguration on television, your visual experience represented events in Washington D.C.—Bush’s taking the oath of office, for example—not just events on the surface of your television screen—e.g. a blue patch appears here, a red one there. Of course, you do see the screen, but you don’t just see the screen.

Dretske’s notion of displaced perception provides a nice account of what is going on here. As you watch the inauguration on television, your perceptual experience has both sensory content and conceptual content. The sensory content of your experience represents the television screen. This corresponds to the function your perceptual states have as states of your visual system to indicate, say, the distance and shape of nearby objects, in this case the television screen. The conceptual content of your experience represents the people and events in Washington. This corresponds to the function your perceptual experience has acquired in virtue of your having developed the ability to recognize Bush, Cheney, and Chief
Justice Rehnquist, as well as the capital buildings, and so on.\textsuperscript{3} The conceptual content of your perceptual experience is, for example, that Bush raised his right hand (to take the oath of office), that Cheney sat nearby and was smiling, that Rehnquist looked dour and serious. That is how your perceptual experience represents the world. You do not see that a Bush-shaped patch of color on the screen “raised” a right-hand-shaped patch of color on the, that a Cheney-shaped patch had a smile-shaped patch, and so on. If you see the image this way at all, you don’t merely see it that way.

You see the image on the screen—that is what the sensory content of your experience represents—but you don’t see it merely as uninterpreted shapes. You see the image on the screen as representing the events in Washington. And you see it as representing those events, because it produces in you a perceptual state that represents those events in Washington, the conceptual content of your experience. On Dretske’s account of representation, we put this by saying that the perceptual state the television image produces in you has a certain \textit{acquired function} (the function of indicating, e.g., that Bush raised his right hand) over and above its systemic function in your visual system (indicating the surface properties of the television screen).

What do we say, then, if events are \textit{mis}represented by the television? Imagine that, out of concern for Bush’s safety, a Bush look-a-like was used during the inauguration ceremony. Consequently, it wasn’t Bush who you saw raise his right hand during the inauguration, it was the Bush look-a-like. Bush was quietly sworn in at the White House, where they dispensed with the usual formalities. If I am right about your perceptual experience being interpreted, as representing the events in Washington, then the conceptual content of your experience represents Bush as having raised his right hand during his swearing in, when in fact he didn’t. (This is the analogy to the case in which I utter the sentence ‘Bill Bradley won the Democratic primary’, when in fact Bradley didn’t win.) Is this a case of misperception? It would seem not. But why not?

\textsuperscript{3}It may be that in this case some sensory content figures in your perceptual experience indirectly as a kind of conceptual content. What I have in mind is your ability to see the objects you see on the television as objects. In the ordinary case in which you see a ball, for example, you see it as a physical object of a certain shape, color, texture, and so on. This is presumably all sensory content, as Dretske conceives of it. But what do we say about the content of your experience that represents these same properties when you see the ball on television? It is unclear to me how Dretske intends the distinction to apply to this case. I am supposing that the sensory content of your experience represents the television screen (the physical object directly in front of you) and the conceptual content represents the ball, even though the perceptual mechanisms that represent the shape, color and texture of the ball would ordinarily give rise to sensory content if you were seeing the ball directly.
There are two views we might adopt about this sort of case. The first is that our ordinary judgments about what constitutes a misperception seems to be based on whether your defects of the sensory content of your experience, not the conceptual content of your experience. Recall, this is an instance of displaced perception, which occurs when the conceptual content of your experience represents something different from the sensory content of your experience. You see, for example, that Cheney was smiling, not by seeing Cheney, but rather by seeing the image on the television screen. It is the image on the screen that is represented by the sensory content of your experience, but it is Cheney that is represented by its conceptual content. The reason we don't think of it as a case of misperception when you watch the phony inauguration is that you are correctly perceiving what you see—what the sensory content of your experience represents—viz., the screen. Though there is misrepresentation, there is no misperception.

This isn't to suggest that you cannot genuinely misperceive events in Washington as you watch the inauguration. Suppose you were watching the television from a bad angle, and consequently it appeared to you that Cheney swatted Chief Justice Rehnquist on the head, when in fact he was only removing his hat. This would be a genuine case of misperception of the events that occurred in Washington, a misperception of what is represented by the conceptual content of your perceptual experience. But notice that this misrepresentation with respect to the conceptual content of your experience is parasitic on a defect of the sensory content of your experience, namely viewing the television from a bad angle. You misperceive Cheney as swatting Rehnquist, because you are seeing the screen from a bad angle. Notice that it wouldn't be a case of misperception if Chaney appeared to be swatting Rehnquist because the newscast was shot from a bad angle. Even though it looked to you as though Cheney swatted Rehnquist, when in fact he didn't, you don't misperceive. So what seems to inform our judgments about whether there is misperception is whether the misrepresentation is due to the sensory content of your experience.

If we adopt this view of the matter, then we are committed to supposing that your experience of the phony inauguration does nevertheless misrepresent the events that occurred in Washington. Though you do not misperceive anything, the conceptual content of your experience nevertheless misrepresents events in Washington as being such that it was Bush raised his right hand, when in fact it was his look-a-like. This might strike one as counter-intuitive, but it isn't clear to me that this is the wrong thing to say. If you are really taken
in by the sham inauguration, and it looks to you for all the world as it is Bush standing there in front of Rehnquist, raising his right hand, then it seems we should say that your experience misrepresents events in Washington. We might hasten to add, however, that you don’t misperceive anything. Perhaps what we should say about this depends on the attitude you take to your perceptual experience, depends on whether you really are “taken in” by the sham inauguration.

If we really want to insist that your experience doesn’t even constitute a misrepresentation, then there is another line we might take. We might suppose that it isn’t a misrepresentation, because it represents not the events in Washington but the fact that the television represents those events. You see the image on the television as representing the inauguration. But we have to square this with the fact that the perceptual mechanisms at work when you watch television are the same as those at work when you see events first hand (e.g., the mechanism for face recognition). One way to do that would be to suppose that those perceptual systems still work as they normally do and produce representations with the same significance they have when you see events first hand. But when you are watching television, you have to “take” these representations in the right way. If you see the inauguration first hand, and see Bush raise his right hand, this produces in you a perceptual state $W$ the significance of which is that raised his right hand—it has the function of indicating that Bush raised his right hand. If you see this on television, it produces in you this same state $W$, but you have to be aware that you are seeing a television image, and this modifies the significance of $W$. State $W$ represents the world as being such that Bush raised his right hand. Your awareness that you are watching television adds: this is what the television represents. The first-order significance of $W$ gets recruited as part of a second-order representation of what the television represents.

If this is right, then in the case of the phony inauguration, not only do you not misperceive, your perceptual experience does not misrepresent events in Washington. There is no misrepresentation, since your perceptual state represents not Bush’s raising his right hand (which by hypothesis didn’t happen), but the fact that the television represents this event (which by hypothesis it does). If we take this line, then television viewing does not count as an instance of displaced perception after all, as I have been suggesting. The sensory content of your experience and the conceptual content of your experience both represent the screen.

There are three important points to be made about his second view of the matter.
First, our perceptual experience when we watch television comes to us interpreted. We see the image on the screen already interpreted for its content; we don’t merely see the patches of color on the screen that constitute the images. Second, way in which the content of the image gets represented is by recruiting a cognitive state that has the same (first-order) content as a second-order representation of the image’s content. I see the image as representing Bush raising his right hand, in virtue of the fact that (i) the image causes in me a state \( W \) the significance of which is that Bush raised his right hand, and (ii) I am aware that this is what the image represents. Third, your perceptual experience of the television does not misrepresent events in Washington, because it represents not those events, but rather the fact that the television represents them.

Notice that the wrong thing to say about the phony inauguration case is that you don’t misperceive, because you merely see that such-and-such colored shapes appear on the television screen, not that Bush raised his right hand or that this is what the television represents. This just doesn’t seem to accurately reflect the phenomenology of television viewing. Nor does it seem to be consistent with the neuropsychology. Someone with prosopagnosia could perfectly well see the image of Bush’s face on the television and see the colored shapes that constitute that image, and yet not recognize Bush. It seems we cannot explain this if we suppose that we see exactly what the prosopagnosic person sees—viz., colored patches on the screen.

So much for the phenomenology of watching television. What then should we say about the initial problem I raised for my view about understanding language? Recall that my initial proposal was that when I utter the sentence ‘Bill Bradley won the Democratic primary’ it produces in you an auditory state the conceptual content of which is that Bradley won the primary. But since Bradley didn’t win the primary, this would seem to commit us to supposing that you have misperceived.

It should be fairly clear now what to say about this, at least clear what our options are. Taking the first view of the matter, language perception—like television perception—is an instance of displaced perception. When I utter the sentence ‘Bill Bradley won the Democratic primary’, you hear that Bradley won the primary (that is what the conceptual content of your auditory experience represents), but you hear this by hearing my utterance (that is what the sensory content of your auditory experience represents). Since Bradley did not win the primary, the conceptual content of your utterance misrepresents the state
of Bradley’s political career. However, you do not misperceive. You do not misperceive, because what you perceive is what the sensory content of your utterance represents, namely my utterance. This sensory content is veridical, since you do not misperceive my utterance.

Taking this line does commit us to supposing that the conceptual content of your auditory experience misrepresents the world. The conceptual content of your experience is that Bradley won the primary, and since he didn’t, this misrepresents how things are. This might initially seem counter-intuitive, but I think a case can be made for taking this view of the matter. Think of a case in which you are told some shocking news by someone you have no reason to doubt, for example, that your cat died, your car was stolen, the tech stock you invested in has just plummeted. This sort of utterance can have a visceral effect. When someone says to you “Oh my God, your car has been stolen!” can evoke an immediate emotional reaction, a sinking feeling in the pit of one’s stomach. One way to explain this is that the auditory state the utterance produces in you has a certain significance, and its significance is that your car was stolen. On Dreske’s view, we put this by saying that it has the function of indicating that your car was stolen, something you dread. That is its conceptual content. Your visceral reaction of dread is to be explained by the fact that your auditory state represents the theft of your car, not merely someone’s uttering the sentence “Oh my God, your car was stolen!” or even someone’s saying that your car was stolen. These latter events are not in themselves anything to dread. But now suppose that someone tells you that your car was stolen, but is merely playing a little joke on you, though you are taken in by the prank. You hear that your car was stolen, and you have the visceral reaction of dread. Why shouldn’t we say that in this case your perceptual state misrepresents the world, specifically the state of your car? The significance of your perceptual state is that your car has been stolen—that’s why you have that immediate sinking feeling—when in fact your car is safely in the driveway.

Of course, someone who wants to resist this line is going to insist that what you hear is only that the speaker said that your car was stolen. You don’t literally hear that your car was stolen. This is something you come to believe (if you trust the speaker), and it isn’t until this further step from hearing to believing that you are filled with dread. But why should we suppose that there is an extra step here?

Compare this with another sort of case. Imagine that you see a mother viciously striking her child, and this produces in you a visceral reaction of anger. A natural way to characterize
this is to say that you see that the mother is striking her child. The significance of your perceptual state is that the child is being struck; that’s what provokes your reaction of anger. Now we might insist that all you see is that the woman appears to be striking her child—that her behavior has the outward appearance of a vicious child beating. That the mother is striking the child is something you come to believe, because of the outward appearance you see. And it isn’t until you take this further step from seeing to believing that you have the visceral reaction. But I don’t see any motivation for this, that it is only the belief state that represents the child beating and not the perceptual state. I see no motivation for resisting the view that your perceptual state is itself imbued with this significance, that you just see that the child is being beaten. This isn’t to suggest that belief isn’t necessary for provoking the visceral response. Its just to say that the significance of the perceptual state (what it has the function of indicating) is not different from the belief.

I want to say the same thing in the language case. Why shouldn’t we suppose that your auditory experience of the utterance of “Oh my God, you car was stolen!” is itself imbued with the significance of the event you dread—viz., your car being stolen? I see no motivation for resisting this, at least in this sort of case. But if the significance of your auditory state is that your car was stolen, if that’s what it has the function of indicating, then it shouldn’t strike us as counter-intuitive that your auditory state misrepresents how things are in the case in which you are duped by the prankster who tells you falsely that your car was stolen. We can think of this as a kind of naïve state of language perception, a normal state of receptiveness to the content of speakers’ utterances.

By contrast, it may be that in a more skeptical frame of mind, the conceptual content of your auditory experience is slightly different. If the person who shouts “Oh my God, you car was stolen!” does so every week, the utterance may not have the same significance it might otherwise have. Perhaps in this sort of case the conceptual content of your auditory experience is not that your car was stolen, but merely that the speaker said that it was. By analogy with the second view I sketched about television perception, we know what to say about this sort of case. In the naïve case, the significance of the auditory state produced by the speaker’s utterance is that your car was stolen. The speaker’s utterance produces in you a state $S$ the function of which is to indicate that your car was stolen. In a more skeptical frame of mind, it may be that you hear only that the speaker said this. But this doesn’t require that you have any detailed conception of the semantics of the speaker’s utterance.
It requires only a modification of the significance of \( S \). The first-order significance of \( S \) gets incorporated into a second-order representation of the content of the speaker's utterance. That is, the speaker's utterance still produces state \( S \), the function of which is to indicate that your car was stolen. But your skepticism adds to this: this is (merely) what the speaker said.

If we take this view of the matter, and this may be the right view to take about some cases, language perception does not involve displaced perception. Your the sensory content of your auditory experience and its conceptual content both represent the utterance, not the theft of your car. If this is right, then not only do you not misperceive when you hear someone utter a falsehood, your auditory experience doesn't even misrepresent. But I don't think that this is the usual case. Typically we take the utterances of other speakers at face value. We just hear that the world is thus-and-so, not merely that the speaker said that it is.

Notice that in order to have it that your auditory experience doesn't misrepresent, we are not forced to retreat to the view that your auditory experience of language comes to you uninterpreted. We needn't suppose that when you hear an utterance of 'Bill Bradley won the Democratic primary' your auditory experience is veridical in virtue of the fact that your auditory experience represents only the fact that an utterance of the sentence occurs. Our auditory experience of an utterance comes to us already interpreted for the content of the utterance. This is how we differ from the meaning deaf speaker. We hear utterances as having content, and this is precisely the capacity the meaning deaf speaker lacks.

### 3.5 Function

I have gotten a lot of mileage out of the notion of function. I have suggested that what it amounts to for your auditory experience of an utterance to come to you "interpreted" is for your auditory state to have the function of indicating something about the world, specifically to have an acquired function that constitutes its conceptual content. Normally, when you hear an utterance \( u \) of a sentence that expresses the proposition that \( p \), the conceptual content of your auditory experience is simply that \( p \) (modulo the skeptical case noted above, in which case the conceptual content is that the speaker said this). On Dretske's view this amounts to saying that the perceptual state \( S \) that the utterance produces in you
has the *function* of indicating that \( p \) (in the skeptical case: the function of indicating that the speaker said this).

I have said that indication is a simple matter of counter-factual dependence: state \( S \) of your auditory system indicates that \( p \) just in case you wouldn’t be in state \( S \) unless it were the case that \( p \). But I haven’t yet said what it is for \( S \) to have the *function* of indicating that \( p \). It is to this topic I want to turn now.

The natural thought is that cognitive states, like other biological phenomena, have the function of indicating something in virtue of having been evolutionarily *selected for* it. But this is not the line that Dretske takes. In much of his work on this, Dretske focuses, not on natural selection, but on *learning* as a source of function.\(^4\) For Dretske, learning confers on a state the function of indicating something, because learning makes the state do something (e.g., cause behavior) *because* of what it indicates. Perception is rich with features that carry information about the properties of distal objects. Perceptual states come to represent those properties we learn to utilize this information that is already available in perception, when the information available in perception is “put to work” in cognition. This kind of learning gives rise to function, because learning “recruits”, indicators as causes of behavior. Learning brings it about that cognitive states that carry information about the state of the world cause behavior appropriate to the world’s being in that state, appropriate in that they contribute to the success of the (individual) organism, measured by the satisfaction of its desires.

Our perceptual systems are indeed rich with information about the world, much more than we utilize in cognition. Consider vision. Information about the properties of distal objects is conveyed by the light they reflect, information about their size, shape, orientation, color, texture, speed and direction of motion, and so on. The light carries information about the properties of the object in virtue of being counter-factually dependent on them: the reflected light wouldn’t have just those features unless the object had just those properties. The basic mechanisms of the visual system convey information in virtue of a similar counter-factual dependence. The light that hits the surface of the retina causes it to produces a

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\(^{4}\)Indeed, in his early work Dretske [5] argued that being selected for indicating something doesn’t confer a function on a state. According to this early view, when \( x \) is selected for indicating that \( p \), \( x \)'s indicating \( p \) does not explain why \( x \) plays the role in cognition that it does. All it explains is why only things that indicate \( p \) are still around, and hence why \( x \) is still around. But it cannot explain what \( x \) does. However, he seems to have reconsidered this view in [6], where he does allow that perceptual systems have indicative function (and thereby sensory content) that is philogenetically determined, presumably by natural selection.
neuro-chemical signal that it similarly counter-factually dependent on the properties of distal objects. This causal mechanism conveys information when the right counter-factual dependency obtains: when the retina wouldn’t have produced that neuro-chemical signal unless it were struck by this pattern of reflected light, and in turn unless the distal object had those properties. The signal carries information about the distal object in virtue of being counter-factually dependent on its properties. The information is preserved (though some information is lost) through the optic nerve—again by preserving the relation of counter-factual dependence—and the signal is thereby conveyed to the primary visual cortex. Ever so many features of the neuro-chemical signal that reaches the visual cortex are counter-factually dependent on the properties of distal objects, and thus a great deal of information is available in perception. Yet much of this information that is available in perception does no work in cognition. We perceive much more than we discern, recognize, think about, react to, or act on.

In order for information do do work in cognition, it must cause something to happen, must somehow register in cognition. Something in cognition must be sensitive to whether the perceptual signal carries that information. This is essentially what the auditory cortex and the visual cortex do. Very crudely, they processes the neuro-chemical signal from the auditory nerve and the optic nerve, respectively, by a massive battery of detectors that are sensitive to (and thus activated by) different features of the neuro-chemical signal of the optic nerve, features that correspond to (counter-factually depend on) the properties of distal objects.

But the stock of information that visual cortex and the auditory cortex are sensitive to is limited. The information that reaches the visual cortex is limited to those properties reflected in the features of the neuro-chemical signal that are counter-factually dependent on properties of the object. Consequently, information gets lost by this process. For example, information carried by the light that hits the surface of the retina is lost when the signal is “converted” into a neuro-chemical signal by the retina. The obvious instance of this is that the retina is simply not sensitive to certain wavelengths of light (viz., ultra-violet and infra-red). We cannot see a person’s body heat, since we cannot see the infra-red radiation they radiate. Even though much information about objects is lost, the visual system makes available much more information than we are capable of processing.

Dretske [7] argues that information can be causally efficacious—that it is the information that causes something to happen, not just the information carrier (e.g., a brain state).

A good deal is known about which parts of the auditory cortex and the visual cortex are sensitive to which kinds of properties of distal objects or sounds, thanks in large part to functional magnetic resonance imaging (fMRI), which provides a way of imaging neuro-chemical activity in the brain (albeit indirectly). The experimental procedure is, at least in principle, straightforward. In order to discover which part of the brain detects some distal property $p$, present subjects with stimuli and see which part of the visual cortex “lights up” when (and only when) property $p$ is present. In practice, this isn’t always so easy.
to is not fixed. They are capable of developing sensitivity to information that they were not previously sensitive to. We learn to discriminate the properties of distal objects, to recognize them, by coming to be sensitive to the features of the perceptual signal that indicate those properties. This is what happens when we learn to recognize or discriminate properties we were not previously able to.

It is this process of learning that, for Dretske, confers on a perceptual state the function of indicating something. I’ll explain this with a somewhat overly simplistic example of learning, just to illustrate the point. My cat has learned to run to the kitchen when she hears the sound I make by shaking a package of her cat food, which gets her where her dinner is at the appropriate time. Of all the various household noises my cat hears during the day, my cat responds to this one with a dash for the kitchen precisely when there is food available there. How is she able to accomplish this? She is able to do this because there is a particular state of her auditory cortex, call it $C$, that is produced by the distinctive sound of my shaking the package of cat food, and this state causes her to go to the kitchen. Since I only make that sound when I’m going to give her food, that state of her auditory cortex indicates that there is food to be had in the kitchen. It has indicated this for as long as I have shaken the food at mealtime. Initially, however, it didn’t mean this to my cat; it didn’t represent anything about food. It was just background noise. It came to mean something, to represent food, when $C$ was recruited in my cat’s psychology as an indicator of food, as a trigger of her dash to the kitchen—when $C$ came to do in my cat’s psychology because of what it indicates. This is what learning does.

On the simple model I’ll present here, learning is a matter of reinforcing behaviors that are successful, where success consists in the satisfaction of desires. My cat learned to go to the kitchen when she hears the sound (when her auditory cortex is in state $C$), because going to the kitchen then was rewarded with food and, in turn, the satisfaction of her hunger. Desire plays two roles here. It provides the motivation for behavior. My cat’s hunger motivates her to go to the kitchen. It gives rise to what we might think of as a defeasible cause of her going to the kitchen—defeasible by any of the things that might prevent her from going to the kitchen despite her desire to do so. But desire is also an essential part of the reinforcement mechanism of learning. The satisfaction of a desire reinforces successful behavior, and in particular reinforces the causal connection between a behavior and an indicative state of the perceptual system, in this case $C$. The causal connection between
being in state $C$ and running to the connection has been reinforced because it was successful (i.e., it resulted in the satisfaction of my cat's hunger). This causal connection has been successful—has resulted in the satisfaction of her hunger—because $C$ indicates that there is food in the kitchen. If $C$ hadn't indicated food—if the sound, and hence $C$, occurred regardless of whether there is food available—$C$'s causing the dash to the kitchen would not have resulted in the satisfaction of hunger and thus would not have been reinforced as a cause of the dash for the kitchen. Thus it is $C$'s indicating food that explains why it causes the dash for the kitchen. This is what explains the role $C$ plays in my cat's psychology. It is in virtue of this that $C$ has the function of indicating food. It has the function of indicating food, because its indicating food explains the role it plays in my cat's psychology.

This explanatory fact is what distinguishes what $C$ indicates from what it has the function of indicating. In addition to indicating the presence of food in the kitchen, $C$ also indicates that I am touching a package of cat food. Recall, to indicate an event $C$ requires only that $C$ would not have occurred unless that event had. And, as it happens, the sound of my shaking the package, and hence $C$, do not occur unless I touch the package of cat food. But $C$ does not have the function of indicating this. The fact that $C$ indicates my touching a package of cat food does not explain why $C$ was reinforced as a cause of her dash to the kitchen, nor does it explain anything else about the role $C$ plays in my cat's psychology. No desire of my cat's was ever satisfied by my merely touching a package of cat food, and consequently $C$'s role in my cat's psychology has never been reinforced because it indicates this.

Learning then confers function on an indicator by making it play a certain role, have a certain effect, in cognition because of what it indicates. State $C$ of my cat’s auditory cortex indicated the presence of food of the kitchen before before it had the effect of causing her to go to the kitchen. It wasn’t until $C$ had this effect on her because of what it indicates that it came to represent food. So a state $S$ has the function of indicating an event $E$, thus representing $E$, in virtue of the following: that $S$ indicates that $E$ occurs explains why the state has the effect that it does.

Note that cashing out the notion of function in terms of this explanatory relationship gets us the features of representation that indication lacks. Importantly, it gets us the possibility of misrepresentation. $C$ represents food even when it fails to indicate food, for example, if I were to tease my cat by shaking a similar-sounding package that isn't filled
with cat food. (Of course, I would never do this to my cat, but let’s suppose.) Suppose this sound is similar enough to produce state $C$ in my cat’s auditory system. In this case $C$ does not indicate that food is available, because there is no food available—and consequently it isn’t true that $C$ wouldn’t have occurred unless there were food available. Still, $C$ is supposed to indicate food, because its indicating food (in the past) is still what explains why it triggers the dash for the kitchen, even if it doesn’t indicate that now.

The general form of Dretske’s account of how learning confers a function on a cognitive state is this: a cognitive state $x$ acquires the function of $\phi$ing if it comes to play a certain role in your psychology because it $\phi$s. It is because the cognitive state does something that the mechanism of learning has “recruited” it to play a certain role in your psychology. When I talk of the role a state plays in your psychology, I mean causal effect the the state has on your cognitive economy and ultimately on your behavior. In the simplistic example about my cat, the causal role of $C$ was to cause my cat to dart into the kitchen. But of course most cognitive states have a much more subtle and indirect effect on our behavior, perhaps only an effect on our dispositions to behave, and this effect is mediated by other cognitive states. This is why I talk more broadly of the role a state plays in your psychology.

Thinking of function as partly a matter of playing a certain causal role in a system addresses worry one might have had about analyzing representation in terms of the notion of function. It might have initially seemed odd to identify representation with having a function, insofar as we tend to think of the function of a thing as what it is supposed to do. We get misrepresentation when a system is in a state that is supposed to indicate that $x$ is $F$, but $x$ is not $F$. But we might have wondered how the mere fact that this state is supposed to do something it fails to do could constitutes doing something else, namely representing. If we think of indicative functions in this way, this is sure to be puzzling. But we needn’t think of the function of a state as what it is merely supposed to do. A mental representation is a brain state that plays a causal role in cognition. Other parts of cognition rely on that state to fulfill this role. Even when it fails to perform its function properly, other cognitive systems behave as though it were doing its job. When your brain is in a belief-state $B$ that is supposed to indicate that $x$ is $F$, other cognitive systems behave as though $x$ were $F$. And if $x$ is not $F$, then $B$ has “misled” these other cognitive systems, and it is this that constitutes the phenomenon of misrepresentation. So we needn’t suppose that misrepresentation is a matter of an indicator doing nothing when it is supposed to
indicate that \( x \) is \( F \). Rather, we can think of it as a matter of the indicator going into a certain state (thus doing something) that is treated by other cognitive systems as indicating that \( x \) is \( F \).

### 3.6 Function in Language Cognition

Since my aim is to apply this theory of representation to the cognitive states that realize our understanding of language, two complications arise. First, the simple model of learning I have sketched is obviously far too crude to plausibly be the way we learn language. Second, Chomsky has argued the capacity for language is largely innate, that the capacity for language develops in much the way that bodily organs develops. So it is a matter of controversy whether language is *learned* at all, at least as we ordinarily think of learning. It is at least clear that we don’t learn language in the way that my cat learned to recognize the sound of a package of cat food.

The obvious difference is that we don’t have to have heard a particular sentence before in order to understand it, in order for it to mean something to us. One of the things that distinguishes language from other meaningful sounds, is that language has a syntax, and our ability to understand language exploits this fact. A particular sentence means something to us, not necessarily because we have heard that particular sentence before, but rather because the words that constitute it mean something to us. We learn language, not in sentence-sized chunks, but in word-sized chunks.

Consequently, the following is clearly the *wrong* explanation of how I came to understand the sentence ‘Dinner is ready’. Back in my early childhood I began to hear the sound my mother made when she uttered the sentence ‘Dinner is ready’. Since my mother is scrupulously honest, this sound *indicated* that dinner was ready—she wouldn’t utter that sentence if dinner weren’t ready—though initially it didn’t *mean* anything to me. Eventually I noticed that if I ran to the dinner table when my mother uttered ‘Dinner is ready’, food would be waiting and my hunger would be satisfied. This reinforced the auditory state that utterances of ‘Dinner is ready’ produce in me, call it \( DR \), as a cause of my running to the table. In this way, \( DR \) came to play a certain role in my psychology, *because* it indicates that dinner is ready, and thus \( DR \) came to represent dinner’s being ready. This is the wrong story, because it ignores the fact that language has syntactic structure. We don’t
treat utterances of sentences as indivisible wholes. We treat them as having parts and their parts have their own semantic significance. At some point we have to become sensitive to the meanings of individual words in order to understand language.

What the right story is about how parts of speech come to have meaning for us will depend, in part, on the empirical issue about the development of the capacity for language. In particular it will depend on the extent to which language is learned. It will depend on the extent to which, by contrast, the development of language is innately determined, as Chomsky insists that it is.

To whatever extent language is learned, we can explain the acquisition of function along the same general lines that Dretske does. But the basic Dretskean story must be modified to reflect the fact that we learn language in word-sized chunks. That is, it must be modified to reflect the fact that when we learn language, words come to have their own significance for us. As we have seen, in order for a cognitive state to have a function, what the state does must explain why it comes to play a certain role in your psychology. So to adapt Dretske’s account of function to sub-sentential parts of speech, we need to say what the cognitive states that realize our understanding of sub-sentential parts of speech do that explains the causal role they play in our psychology.

According to the view I have been advancing, the cognitive states that realize our understanding of language do, or at least have the function of doing, what language itself does. In the case of sentences, what sentences do (or are at least supposed to do) is indicate how things stand in the world. You understand a sentence in virtue of the following: hearing an utterance of the sentence produces in you an auditory state that has the function of indicating what the sentence is supposed to indicate (modulo the refinement of this function that arises when we take a skeptical attitude to speaker’s utterances, as was discussed in the previous section). For example, the sentence ‘Al Gore won the Democratic primary’ has the function of indicating that Gore won the primary. When you hear an utterance of this sentence, it produces in you an auditory state $GP$ that itself has the function of indicating that Gore won the primary. Now, if you had learned the meaning of this sentence by hearing it over and over and coming to recognize that it indicates that Gore won the primary, then we could explain why it has the function of indicating this by saying that it came to play the role it does in your psychology, because of what it indicates. But we don’t learn language this way, so we can’t say this. This sentence might be meaningful for you, even if you have
never have heard it before.

I suggested in §3.3, however, that $GP$ is a composite state, composed of the state $G$, which is the auditory state produced in you by utterances of the name ‘Al Gore’, and a state $P$ that is produced by utterances of ‘won the Democratic primary’. What explains the role that $GP$ plays in your psychology is that it is composed of $G$ and $P$, and these states have a certain role in your psychology, which they acquired through learning. In order to account for the function of $GP$, then we need an account of what the functions of $G$ and $P$ are and how they came to have those functions, we need to know what they do that explains why they came to play their roles in your psychology.

Again, on the view I am advancing, the functions of these states will be analogous to the parts of speech they are produced by. Just as $GP$ has the same function as ‘Al Gore won the Democratic primary’—the sentence that produces $GP$—$G$ and $P$ will have the same function as the name ‘Al Gore’ and the predicate ‘won the Democratic primary’, respectively.

The function of sub-sentential parts of speech is derivative from the function of sentences. Even if we learn language in word-sized chunks, the business of language is done in sentence-sized chunks. It is sentences that represent the world, that have the function of indicating how the world is. Sub-sentential parts of speech don’t represent anything, they don’t have the function of indicating anything, at least not by themselves. Their role is to determine what is supposed to be indicated by the sentences they occur in. We can think of the function of sub-sentential parts of speech by abstraction from the function from the function of sentences. As a first approximation, we can characterize the function of the name ‘Al Gore’ as follows: the function of sentences of the form ‘Al Gore $\xi$’ have the function of indicating something about Gore. This is only a first approximation, since the name ‘Al Gore’ can occur in more complex grammatical constructions that are not of this form and do not have this function (e.g., conditionals). But this first approximation is good enough for the point I want to make here. Similarly, as a first approximation, the function of the predicate ‘won the Democratic primary’ can be characterized as follows: the function of sentences of the form ‘$\zeta$ won the Democratic primary’ is to indicate of someone that they won the Democratic primary.

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8To simplify the discussion, I am in effect treating this predicate as a semantic primitive, which of course it is not. But for purposes of this illustration, we needn’t worry about the internal semantics of this predicate.
The point I want to make is that we can characterize the function of $G$ and $P$ in the same way, since these cognitive states have the same function in cognition as 'Al Gore' and 'won the Democratic primary' have in English. By analogy, we can characterize this by abstraction from what the complex states containing them are supposed to do. That is, the function of a cognitive state of kind $G\xi$ is to indicate something about Al Gore. The function of a cognitive state of kind $\zeta P$ is to indicate about someone that they won the Democratic primary. This is the contribution that these states are supposed to make to what states containing them are supposed to indicate.

Let me put the issue in about the function of $G$ and $P$ in a slightly different way: what do $G$ and $P$ do when they are doing they are supposed to? Again, we can characterize this by abstraction from what the complex states containing them do (when they are doing what they are supposed to). That is, what they do (when they are doing what they are supposed to) is make a certain contribution to what is indicated by the complex states containing them. The contribution $G$ makes is this: a cognitive state of kind $G\xi$ indicates something about Al Gore. The contribution $P$ makes is this: a cognitive state of kind $\zeta P$ indicates about someone that they won the Democratic primary. Again, this is what $G$ and $P$ do when they are doing what they are supposed to.

Now, how do we explain how it came to be that doing this is the function of $G$ and $P$? Recall, to give an account of how learning confers a function on a cognitive state, we need to say what the cognitive state does that explains why it plays the role that it does in one’s psychology. Now that we have articulated what $G$ and $P$ do, we are in a position to say (at least in general terms) how this came to be their function. That is, in your psychology, states of kind $G\xi$ indicate something about Al Gore, and such state came to have the function of indicating this in virtue of the fact that they came to play a certain role in your psychology, because they indicate this. Similarly, states of kind $\zeta P$ indicate of someone that they won the Democratic primary, and indicating this came to be the function of such states in virtue of the fact that they came to play a certain role in your psychology, because they indicate this.

This provides a sketch of how it is that learning can confer function on the perceptual states that realize our understanding of sub-sentential parts of speech. This this allows us to apply Dretske’s account of representation to language cognition, since we learn language learning the meanings of individual words, not by learning the meanings of whole sentences.
By contrast with the original Dretskean story, we now not longer need to suppose that you have previously heard a sentence in order for the auditory state it produces in you to have the function of indicating something. For example, we don’t need to suppose that you have previously heard the sentence ‘Al Gore won the Democratic primary’ in order for the auditory state it produces in you GP to have the function of indicating that Gore won the primary. The function of this composite state is determined by the fact that it is composed of G and P, the fact that cognitive states of kind Gξ have the function of indicating something about Al Gore, and the fact that cognitive states of kind ζP have the function of indicating about someone that they won the Democratic primary. So it is enough for GP to have the function of indicating that Gore won the primary that you have learned the meanings of G and P.

3.7 Conclusion

We should remind ourselves what this sort of learning amounts to. It does not consist in forming a belief about the meanings of the name ‘Al Gore’ and about the predicate ‘won the Democratic primary’. Rather it consists in your perceptual states acquiring representational content, specifically conceptual content. I have argued that the capacity to understand language is a perceptual capacity, a perceiving-as phenomenon. You understand what a speaker says by perceiving their utterance as having a certain content. In this chapter, I have tried to provide an account of what this amounts to. You perceive their utterance as having a certain content in virtue of the following: the auditory state the utterance of the sentence produces in you has the function of indicating something, specifically what the sentence itself has the function of indicating. For example, the auditory state produced in you by an utterance of the sentence ‘Al Gore won the Democratic primary’ has the function of indicating that Gore won the primary.

This is what it comes to for you to hear the utterance as having this content. And it is in virtue of this that you understand what the speaker says. And it is in virtue of having the capacity to understand what speakers say when they utter the sentence that you count as understanding the sentence.

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*I'm glossing over the exact details of the compositional structure of GP. Specifically, G has to be the first constituent and P has to be the second constituent, such that GP is of kind Gξ and of kind ζP."
You understand sub-sentential parts of speech in virtue of having the capacity to hear utterances of them as having a certain meanings. On the view I have advanced here, to hear an utterance of a word as having a certain meaning, as in the case of sentences, is for the perceptual state it produces in you to have a certain function. But the perceptual states that underwrite our understanding of individual words, like the words themselves, do not have the function of indicating anything. Their role is to make a certain contribution to what the complex states they occur in (that underwrite our understanding of whole sentences) are supposed to indicate.

This brings out the central point of contrast with the epistemic and doxastic views. According to the doxastic view, for example, your understanding of a word is constituted by a belief about its meaning. You understand the word 'butter' in virtue of holding some belief about what the word means—that it means butter, that it refers to butter, that its extension is butter, or whatever. Beliefs represent. So such a belief represents some semantic fact about the word 'butter', that it has a certain meaning. On Dretske's account of representation, we put the fact that your belief represents this by saying that your belief state has the function of indicating that the word 'butter' has this meaning. The cognitive state that realizes your understanding of the word 'butter' has this function in your psychology.

This is precisely what I want to deny. On the perceptual view, the perceptual state that underwrites your understanding of the word 'butter' doesn't have the function of indicating anything, and in particular doesn't have the function of indicating what the word 'butter' means or what a particular utterance of that word means. Instead, the function of this state is to play a role in indicating something about the world, whatever a speaker might want to communicate to you by using the word 'butter'. For example, if someone utters the sentence 'There is butter on the floor', this produces in you some complex auditory state $BF$. The part of this state, $B$, that corresponding to your hearing the word 'butter' state does not have the function of indicating anything about the world, specifically about the meaning of 'butter' or about the meaning of this utterance of it. Its function is merely to play a role in determining that $BF$ has the function of indicating that there is butter on the floor.

Of course, you might reflect on the meaning of the word and form a belief about the meaning of the word 'butter'. Then you would have a cognitive state the function of which
is to indicate the meaning of the word butter. But the point is that no such cognitive state is necessary to underwrite your ability to understand this word.

In more general terms, my beef with the epistemic and doxastic view is this. These views have it that language and our understanding of language are in different lines of work. Language is in the business of representing the world, whereas our understanding of language is in the business of representing language. On my view, they are both in the same line of work. Language and language cognition are both in the business of representing the world: they are both have the function of indicating something about or conveying information about the world.
Chapter 4

Recognition and the Semantics of Identity

According to the view I have been developing, our understanding of language is realized, not by knowledge or beliefs, but rather by a perceptual capacity. We understand language by perceiving it as having a certain meaning or content, not by knowing or believing that it does. Specifically, we understand what speakers say by perceiving their utterances as having a certain content. We count as understanding language in virtue of having this capacity. To perceive an utterance as having a certain content is for the perceptual state it produces in you to have a certain conceptual content. I have argued that, typically, the conceptual content of your perceptual state is the same as the content of the utterance itself (modulo the case in which you take a skeptical attitude toward the speaker, as discussed in §3.4). When you hear an utterance $u$ that expresses the proposition that $p$, the conceptual content of the auditory state $u$ produces in you is also that $p$.

What I want to do in this chapter is show that this view can do some work in the philosophy of language. The particular issue I will focus on concerns the content of identity claims. That is, I will be concerned, at least in part, with the content of sentence of the form:

(1) $\alpha$ is $\beta$,

where $\alpha$ and $\beta$ are referring expressions. The issue is a familiar one, famously raised by Frege [13]. Though Frege initially puts the issue as a metaphysical one about whether identity is a relation between objects or a relation between signs, we can also find in Frege's
discussion concern about the semantic issue about what the content of sentences of form (1) is. And it is this semantic issue I want to focus on here.

Saying that the issue is about the content of such sentences does not yet make it perfectly transparent what the issue is, since I have yet to say anything about the notion of content. What are we asking when we ask what the content of such sentences is? The content of a sentence is the proposition it expresses in virtue of its literal meaning. For a sentence to express a certain proposition is for it to represent the world as being a certain way. For a sentence to express the proposition that \( p \) is for it to represent the world as being such that \( p \).\(^1\) It is important to note that the content of a sentence, at least as we will conceive of it here, is tied to the literal meaning of the sentence. It is familiar from the phenomenon of implicature that a sentence can be used to convey a proposition that it does not literally express in virtue of what it means.

Nathan Salmon [20] has suggested that the issue Frege raises about the content of identity claims is a more general issue about the contribution a singular term makes to the content of a sentence. He takes the issue about the content of identity claims merely to be an instance of this more general issue. However, I will begin by focusing on identity claims, because such claims seem to me to be unique in the way they convey information. We can leave it open, at least initially, whether the proper account of the content of identity claims commits us to a view about the semantics of referring expressions. In the end, I think this isn’t right. On the view I will offer, an identity claim is a special sort of semantic device that doesn’t reveal anything about the semantics of referring expressions.

I do, however, think that the issue about the content of identity claims concerns more than just the content of sentences of form (1). There is a much broader class of sentences that seem to do the same work in natural language. The literature on identity has focused almost exclusively on sentences like:

(2) Bubba is Bill Clinton.

But this use of 'is' is merely one of a number of devices in natural language that we use to express identities. Instead of asserting (2). One can, to the same effect, also assert:

\(^1\)Of course, some sentences express more than one proposition, different propositions in different contexts of utterance, either because a term in the sentence has more than one meaning or because the sentence is context sensitive. In that case, we cannot talk of the content of the sentence, but must rather talk of the content of the sentence relative to a given context of utterance.
(3) Bubba is identical to Bill Clinton, and

(4) Bubba is the same person as Bill Clinton.

These would seem to be equivalent to (2). At any rate, it would be very strange indeed if our account of the content of (3) and (4) were radically at odds with our account of the content of (2). There are, of course, the following grammatical variants of (3) and (4):

(5) Bubba and Bill Clinton are identical, or

(6) Bubba and Bill Clinton are the same person,

respectively. Indeed, these latter locutions are more versatile than any of the preceding, because they allow us to express identities utilizing more than two referring expressions. We can say, for example,

(7) Bill Clinton, Bubba and Slick Willy are identical, or

(8) Bill Clinton, Bubba and Slick Willy are the same person.

The phrase 'the same φ' is more versatile still, for it allows us to say such things as:

(9) The same person committed all of the murders.

Here again, it would be odd if our account of the content of (9) were radically at odds with our account of the content of (2) – (8). So an adequate account of the content of identity claims should provide not only an account of the content of sentences of form (1), but also the content of sentences of the form:

(10) α₁ is identical to α₂,

(11) α₁ is the same φ as α₂,

(12) α₁, ..., αₙ are identical,

(13) α₁, ..., αₙ are the same φ, and

(14) The same φ has properties p₁,p₂, ..., pₙ.

where α₁, α₂, ..., αₙ are referring expressions, and φ is a sortal. So the issue I want to pursue is what the right account is of the content of sentences of form (1), as well as sentences of forms (10)–(14).
It is not news to anyone that there is this diversity of locutions for expressing identities. And there are, of course, grammatical variants of these sentences and other locutions we use to the same effect, such as 'α just is β' and 'α is one and the same as β'. But I want to emphasize some of the diversity of locutions we use for expressing identities, because—as I will try to show—(i) the usual focus on sentences of form (1) is misleading as to the content of identity claims, and (ii) it turns out to be a bit of mystery, on the standard account of the content of identity claims, why there should be such diversity of locutions for expressing identity claims.

To emphasize, the issue I am concerned with is an issue about the content of English sentences employing particular uses of the expressions 'is', 'identical to', and 'the same φ'. I will not be concerned, at least in the first instance, with the proper interpretation of the symbol '='. However, insofar as this symbol is intended to do the work in formal languages that the 'is' of identity does in natural language, what I say here will bear on its interpretation as well.

4.1 Material Identity

Identity is standardly regarded as a relation, specifically that relation every object necessarily bears to itself and bears to no other thing, not even contingently. I will refer to this here as material identity. For most philosophers, this is simply identity full stop. This relation has become so familiar from formal semantics, that many philosophers take it for granted that when we talk about identity we are talking about this relation. Nevertheless, it is a substantive view that this is what identity amounts to—that when we say that Bubba and Bill Clinton are identical, we are asserting that Bill Clinton bears this relation to himself. It is a substantive view about identity that we predicate this relation of x and y when we say that x and y are the same person or the same material object. To mark this as a particular view about the matter, I will refer to this as material identity.

In formal semantics, relations are represented as sets of ordered n-tuples. Material identity is a binary relation, and hence is represented as a set of ordered pairs. Specifically, if we let D be the domain of objects, then the relation of material identity, I, can be represented as follows:

\[ (15) \quad I = \{ \langle x, x \rangle : x \in D \} \]
In formal languages, what I am calling the relation of material identity is expressed by ‘=’, the identity sign. The identity sign is syntactically a two-place predicate. We get a well-formed sentence when the identity sign is flanked by referring expressions. The semantics for the identity sign is given in terms of the relation of material identity as follows. Let σ be an interpretation function, which takes an expression to its semantic value—e.g., σ will take a singular term to its referent and a predicate to its extension. Then,

\[(\alpha = \beta) \text{ is true iff } (a(\alpha), a(\beta)) \in I\]

In other words, \(\alpha = \beta\) is true just in case the referent of \(\alpha\) bears the relation of material identity to the referent of \(\beta\). As we might expect, the referent of \(\alpha\) will bear this relation to the referent of \(\beta\) just in case the referent of \(\alpha\) is none other than the referent of \(\beta\).

This is the familiar account of the semantics for ‘=’. However, the issue I want to consider is whether this is the right sort of account to give of the semantics of ‘is’, specifically the ‘is’ of identity. That is, I want to consider whether the ‘is’ of identity expresses the relation of material identity, as it would on the following analysis of its meaning:

\[(\alpha \text{ is } \beta) \text{ expresses the proposition that the relation of material identity obtains between the referents of } \alpha \text{ and } \beta.\]

Again, we are free to stipulate that in some formal language ‘=’ expresses the binary relation of material identity. But the issue I am raising is, in part, about the semantics of ‘is’. And the issue about the right account of the semantics of ‘is’, specifically the ‘is’ of identity, is not a matter of stipulation. It is an empirical issue, and this constitutes one view about this empirical issue. More broadly, this is an issue about what identity amounts to, insofar as we think of identity as the notion at work when we assert that Bubba is Bill Clinton, or that \(x\) and \(y\) are the same person or the same material object.

### 4.2 Frege’s Puzzle

Frege raised a now familiar difficulty for (17) as an analysis of the content of identity claims.\(^2\) Frege’s worry is that (17) fails to capture an important difference between the thought expressed by a sentence like:

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\(^2\)From here on, I will follow the usual practice of limiting our attention to claims of form (1).
(18) Hesperus is Phosphorus,

and the thought expressed by:

(19) Hesperus is Hesperus.

According to Frege, if (17) is the right account of the semantics of sentences of form (1), then (18) and (19) have the same Erkenntniswert or cognitive value. According to Frege, however, (18) and (19) differ in cognitive value. Frege glosses this difference in terms of how we know that (18) is true and how we know that (19) is true. But this difference in cognitive value is sometimes characterized as a difference in informativeness. I want to briefly discuss both of these ways of characterizing the differences in cognitive value exhibited by such pairs of identity claims.

4.2.1 The Epistemic Problem

If (17) is the right account of the content of identity claims, then (18) and (19) both express the thought that Hesperus is identical to itself. But as Frege points out, there seems to be an important difference between the thoughts expressed by these sentences, a difference that this analysis fails to capture. Frege gives an epistemic characterization of the difference. According to Frege, the thought expressed by (19) is knowable a priori. One need only reflect on the content of the thought to know that it is true that Hesperus is Hesperus—that Hesperus is identical to itself. By contrast, it would seem that the thought expressed by (18) is knowable only a posteriori.³ It was an empirical discovery that Hesperus is Phosphorus. It is difficult to see how this might be an empirical discovery, knowable only a posteriori, if (18) merely expresses the thought that Hesperus is self identical. At least, it is a prima facie problem with (17) that it seems not to capture the different epistemic position we are in with respect to these two identity claims.

Breaking with convention, I want to develop a version of this problem with respect to an identity claim the truth of which is still unsettled. I think this brings out the way in which (17) fails to capture the epistemic position we are in with respect to non-trivial identity claims. Compare the thoughts expressed by the sentences:

³Since Frege it has been pointed out that what is knowable a priori is that if Hesperus exists, Hesperus is Hesperus. Still, there is an epistemic contrast between the two, since it would seem that we do not know a priori that if Hesperus exists, Hesperus is Phosphorus.
(20) Alexander Haig is Deep Throat.

(21) Alexander Haig is Alexander Haig.

Again, we can raise Frege's worry. The thought expressed by (20) is one of the still unresolved matters surrounding the Watergate scandal, and is a matter of much speculation. Whether this is true is an empirical matter knowable only a posteriori, and in fact known only by Woodward and Bernstein, the journalists who broke the story about the Watergate scandal. By contrast, (21) not a matter of any speculation, and is knowable a priori by anyone who reflects on the matter.

Yet (17) doesn't seem to capture this difference. If it turns out that Haig is Deep Throat, then (20) expresses the proposition that Alexander Haig bears the relation of material identity to himself, which is necessarily true and can be known to be true a priori. If it turns out that Haig is not Deep Throat and that, say, that Henry Petersen (the former assistant attorney general) is Deep Throat, then (20) expresses the proposition that Haig bears the relation of material identity to Petersen, which is necessarily false and can be known to be false a priori.

So if we knew which thought (20) expresses, then it seems we could know a priori whether (20) is true. Yet this clearly isn’t the case, since in fact we know neither that (20) is true nor that it is false, and could only discover this a posteriori. What follows, then, is that we don’t know which thought is expressed by (20)—that we don’t know that a speaker says who assertively utters (20). Yet this doesn’t seem right. We clearly do know which thought is expressed by (20), otherwise we wouldn’t be in a position to speculate about whether it is true and go about finding out whether it is true—whether Haig is Deep Throat.

One might propose that we do know which thought (20) expresses, even if we don’t know whether it expresses either the thought that Haig bears the relation of material identity to himself or the thought that he bears this relation to Petersen. What we know is that (20) expresses the thought that Haig is Deep Throat. What we don’t know is whether this is the thought that Haig bears the relation of material identity to himself or the thought that he bears this relation to Petersen.4

4This is roughly the line that Salmon [20] takes. According to Salmon, we entertain thoughts under guises—our epistemic relationship to thoughts is mediated by guises. So you can entertain a proposition under one guise but not another. This opens up the possibility that you might not realize when you are
But there is something deeply unsatisfying about this. For a sentence to express a thought is for the sentence to represent the world as being a certain way. Thus, to know which thought a sentence expresses, is to know how the sentence represents the world. It would be odd to suppose that I know which thought a sentence expresses, without knowing how it represents the world. So if we suppose that I know which thought (20) expresses, then I should know (or at least have some conception of) how it represents the world, of how the world would have to be for (20) to be true. Yet according to (20), there are exactly two possibilities. Either:

(22) ‘Alexander Haig is Deep Throat’ represents the world as being such that Haig bears the relation of material identity to himself, or

(23) ‘Alexander Haig is Deep Throat’ represents the world as being such that Haig bears the relation of material identity to Petersen (to someone other than Haig).

But how could I know how (20) represents the world and yet not know which of these ways (20) represents the world, not know whether it represents Haig as bearing this relation to himself or represents him as bearing it to someone else? There doesn’t seem to be any room for me to know how (20) represents the world and yet be ignorant of which of these is the way (20) represents the world. So a speaker cannot know which thought (20) expresses without knowing whether it expresses the thought that Haig is self identical or the thought that Haig bears the relation of material identity to Petersen. 5

In summary, since I know the thought that (20) expresses, I should know how (20) represents the world. If (17) were the right account of the content of identity claims, that would leave open only two possibilities as to how (20) represents the world, (22) and (23). But if I know how (20) represents the world I should know which of these is the way (20)

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5I am setting aside one sort of case in which someone might know which thought (20) expresses and yet not know whether it expresses the thought that Haig is self identical or expresses the thought that Haig bears the relation of material identity to Petersen. A monolingual speaker of Cantonese might know that (20) expresses the same thought as the German sentence ‘Alexander Haig ist Deep Throat’, without understanding either sentence. Such a speaker counts as knowing which thought (20) expresses, in virtue of knowing that it expresses the same thought as the German sentence. But notice that such a speaker has no conception of how things might be such that (20) would be true. This is not the position we are in. We do understand the sentence, and consequently we do have some conception of how the world might be such that (20) would be true. So when I claim that a speaker cannot know which thought (20) expresses without knowing whether it expresses the thought that Haig is self identical or the thought that Haig bears the relation of material identity to Petersen, the scope of this claim should be taken to be restricted to speakers who understand (20).
represents the world. But if I knew that, then I should know whether (20) is true, since it follows from (22) that (20) is necessarily true and follows from (23) that it is necessarily false. But since I don't know whether (20) is true, (17) cannot be the right account of the content of identity claims.

So one problem with (17) as an analysis of identity claims, is that it fails to capture the difference in our epistemic position with respect to (18) as compared with (19) and our epistemic position with respect to (20) as compared with (21). I will refer to this as the epistemic problem.

4.2.2 The Informativeness Problem

A related difficulty for (17) is that if fails to capture an apparent difference in the informativeness of (18) and (19). Whereas (18) seems to be informative, (19) seems completely uninformative. But if (17) were the right account of the semantics of identity claims, both sentences should be equally uninformative.

We talked about information already in Chapter 3. Specifically, we talked about what it is to convey information. An event \( E \) conveys the information that \( p \) just in case \( E \) would not have occurred unless \( p \). Conveying information is a matter of ruling out possibilities that might have obtained. Dretske also talks of generating information. According to Dretske [4], the occurrence of an event \( E \) generates information just in case its occurrence rules out other possibilities—other events that might have been realized instead. Specifically, the occurrence of \( E \) generates the information that \( E \) occurred. Consider two events that might have obtained. For example, either Bush or Gore might have become president (in the 2000 election). Either of these events—Bush's becoming president or Gore's becoming president—might have obtained. Information was generated when one of these events did obtain. That is, when Bush became president, this ruled out the possibility that Gore might have become president (in that election) and thereby generated information, specifically the information that Bush became president.

The problem with analyzing identity as material identity is that something's bearing the relation of material identity to itself, or failing to bear this relation to something else, never generates information, because no possibilities that might otherwise have been realized are ruled out by something's bearing this relation to itself, or failing to bear this relation to something else. What we know about the relation is that a thing bears this relation to
itself necessarily, and necessarily does not bear this relation to anything else. Consequently, a thing’s bearing this relation to itself or failing to bear this relation to something else never rules out any other events that might otherwise have been realized. But then a thing’s bearing this relation to itself or failing to bear this relation to something else never generates any information. So if an utterance of an identity claim is supposed to convey information about whether a thing bears this relation to itself, there is no such information to convey, since things could not have been otherwise. That a thing bears this relation to itself is news to no one.

Hence, on the supposition that the content of an identity claim is that a thing bears the relation of material identity to itself, as (17) would have it, we should expect that an utterance of an identity claim does not convey any information. No information is generated by a thing’s being identical to itself—since things could not be any other way—and hence there is no information for an utterance with that content to convey. Hesperus’ bearing the relation of material identity to itself does not generate any information; it doesn’t rule out any possibilities that might otherwise have obtained. So if we suppose, as (17) would have it, that the content of (18) is that Hesperus bears this relation to itself—if that is the information it is supposed to convey—then it turns out that there is no information for it to convey, and (18) turns out to be informative.

Similarly, though (20) seems informative, (17) cannot account for this. As things stand, it is unclear whether Haig is Deep Throat. If it turns out that Haig is Deep Throat, someone could communicate this by asserting (20), and it seems we would thereby acquire information about how the world is. The information would by conveyed by ruling out the possibility that Haig might not have been Deep Throat. Yet according to (17), this cannot be right. If Haig is Deep Throat, what (20) tells us is that Haig bears the relation of material identity to himself. But there is no other way things could have been. Haig could not have failed to bear this relation to himself. So no information is generated by Haig’s bearing this relation to himself, and no information is conveyed by telling us that he does.

But things are no better if it turns out that Haig is not Deep Throat—if instead Petersen is Deep Throat. In this case, according to (17), (20) tells us that Haig bears the relation of material identity to Petersen. Again, no information is generated. That is, no information is generated by Haig’s bearing the relation of material identity to Petersen, because Haig cannot possibly bear this relation to Petersen. So if, as (17) would have it, (20) is supposed
to tell us that Haig bears the relation of material identity to Petersen, then again no information is conveyed. This does not rule out any possibilities about how the world might be, because the world cannot possibly be this way.

Though it seems that identity claims can be informative, (17) cannot account for this. I will refer to this as the informativeness problem. It is this problem I want to focus on in the discussion, though any adequate solution to Frege's puzzle must also address the epistemic problem.

4.3 The Meta-Linguistic Solution

An obvious suggestion as to how identity claims might be informative is to suppose that what a sentence like 'Hesperus is Phosphorus' tells us is not that Hesperus bears the relation of material identity to itself, but rather that the names 'Hesperus' and 'Phosphorus' both refer to the same planet, as it happens, the planet Venus. That is, as an alternative to (17), we have the following proposal about the semantics of sentences of form (1):

(24) \( \alpha \) is \( \beta \)' expresses the proposition that \( \alpha \) and \( \beta \) are co-referential.

This was Frege's view of the Begriffsschrift. It is not obvious whether this constitutes progress with respect to the project of explicating identity, depending on how we cash out the notion of co-reference. If the proposal is merely that \( \alpha \) is \( \beta \)' expresses the proposition that \( \alpha \) and \( \beta \) refer to the same object—that the referent of \( \alpha \) is identical to the referent of \( \beta \)—then we have not made any progress. This way of cashing out the notion of co-reference employs the very notion we are trying explicate, namely identity.

But there is another way of cashing out the notion of co-reference that does not make the analysis circular. For \( \alpha \) and \( \beta \) to be co-referential is for there to be a single object to which both \( \alpha \) and \( \beta \) refer. That is, rather than there being two objects, one of which \( \alpha \) refers to and the other of which \( \beta \) refers to, there is one object to which both \( \alpha \) and \( \beta \) refer. This way of cashing out the notion of co-reference does not employ the notion of identity.6

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6This will raise a flag for anyone familiar with number theory. A standard way to explicate the notion of number is in terms of identity. To say that there is one cat in the room is to say that there is some object \( x \) such that (i) \( x \) is a cat in the room and (ii) for \( y \) which is a cat in the room, \( y \) is identical to \( x \). If this is right, then identity is conceptually prior to the notion of number and by appealing to the idea that there is one object to which both \( \alpha \) and \( \beta \) refer we really have employed the concept of identity. However, it is also part of this standard way of explicating number that identity is the relation of material identity. So we are invited to suppose that the material identity is conceptually prior to number. This seems to me
This proposal does allow us to account for the informativeness of (18). Unlike Hesperus' bearing the relation of material identity to itself, it does generate information that the names 'Hesperus' and 'Phosphorus' are co-referential, because things might have been otherwise. These names might have referred to different planets. That is, there might have been two planets such that 'Hesperus' and 'Phosphorus' each refer to one of them.\(^7\)

This also seems to account for why (19) is knowable \textit{a priori}, whereas (18) is knowable only \textit{a posteriori}. According to (24), the content of (19) is that 'Hesperus' is co-referential with itself. This we can discover merely upon reflection. By contrast, it is not trivial that 'Hesperus' and 'Phosphorus' are co-referential. To discover this, we must investigate how things stand in the world, and in particular how the names 'Hesperus' and 'Phosphorus' are related to the world and thereby to each other.\(^8\)

Frege [13] rejects this meta-linguistic view of identity claims, because it seems to get wrong the subject-matter of such claims. That Hesperus is Phosphorus is an astronomical fact, not a semantic one. To discover that Hesperus is Phosphorus is to discover something about the arrangement of the heavens, not something about the semantics of English (nor about the semantics of Latin or Greek).\(^9\)

Similarly, it is a matter of some historical interest whether Alexander Haig is Deep Throat, and a matter about which there has been much speculation. It would be an important historical discovery to find out whether Haig is Deep Throat. But, according to (24), to discover that Haig is Deep Throat would be to discover something about language, namely that the names 'Alexander Haig' and 'Deep Throat' are co-referential. This seems to mis-locate the issue that is of historical interest. What we want to know is who Deep Throat is, and in particular whether Deep Throat is Haig. And though one might discover this by discovering who the name 'Deep Throat' refers to, this fact about the name is not, at least not in the first instance, what we are interested in.

\(^7\)I am being careful here not to put these points in a way that employs the notion of identity. We might put this by saying that 'Hesperus' refers to one planet and 'Phosphorus' refers to the other. But the other planet would be the planet not identical to the first one.

\(^8\)Again, if we take into account the possibility that 'Hesperus' might not refer at all, then what we know \textit{a priori} is that if 'Hesperus' refers at all, then 'Hesperus' is co-referential. Still, this contrasts with (18), since we cannot know \textit{a priori} that if 'Hesperus' and 'Phosphorus' refer at all, then they are co-referential.

\(^9\)Hesperus' was originally Latin and was originally derived from the Greek word 'ɛςπερός'.

mistaken. I have a much better grip on what it is for there to be one cat in the room—rather than two or ten or none—than I have on what it is for any cat in the room to bear the relation of material identity to x. (See §4.1.)
A related difficulty for the meta-linguistic view is that it seems to get the modal behavior of identity claims wrong. If the names 'Hesperus' and 'Phosphorus' had each referred to one of my two cats, these names would not be co-referential. According to (24), then, if 'Hesperus' and 'Phosphorus' had been names for my cats, rather than names for the planet Venus, Hesperus would not have been Phosphorus. Yet this doesn't seem right. It is thought that Hesperus is necessarily Phosphorus. At any rate, whether Hesperus is Phosphorus doesn't seem to turn on what my cats are named.

Similarly, if 'Alexander Haig' and 'Deep Throat' had both been names for one of my cats, rather than names for figures in the Watergate scandal, these names would be co-referential. According to (24), then, if 'Alexander Haig' and 'Deep Throat' had both been names for my cat, Haig would be Deep Throat. But, again, among the ways we imagine that Haig could have turned out to be Deep Throat, my naming my cat 'Alexander Haig' and 'Deep Throat' is not one of them.

It seems, then, that 'Alexander Haig is Deep Throat' does not represent the names 'Alexander Haig' and 'Deep Throat' as being co-referential. We can put the point in terms of the account of representation that was outlined in the previous chapter. Recall, on that account of represent, to represent is to have the function of indicating something, the function of conveying certain information. What we have seen, then, is that 'Alexander Haig is Deep Throat' does not have the function of indicating that 'Alexander Haig' and 'Deep Throat' are co-referential; it doesn't have the function of conveying that information. Even if an utterance of the sentence were to convey this information, that is not its function—that's not the information it is supposed to convey.

4.4 Frege's Solution

Frege's own solution was to account the difference in cognitive value between (18) and (19) in terms of a difference in the senses of the names 'Hesperus' and 'Phosphorus'. For Frege, the thought expressed by a sentence is constituted by the senses of the syntactic constituents of the sentence. The sense of the sentence just is the thought it expresses. On this view, if we suppose that 'Hesperus' and 'Phosphorus' have different senses, then the thought expressed by (18) is distinct from the thought expressed by (19), since the thought that Hesperus is Phosphorus has the sense of 'Phosphorus' as a constituent, whereas the
thought that Hesperus is Hesperus does not.

Frege did not think of the puzzle about identity primarily in terms of informativeness, and certainly not in terms of the notion of information that I have been working with. Frege did not conceive of the solution to the puzzle as requiring an answer to the question: what possibilities about how the world might be get ruled out by a true assertion of identity? Rather, Frege conceived of it as a puzzle about the object of belief. As Frege conceived of the puzzle, it required an answer to the question: how is it that one can believe that that Hesperus is Hesperus without thereby believing that Hesperus is Phosphorus? The objects of beliefs are thoughts. By contrast with (17), Frege's view has it that (18) and (19) express different thoughts. In itself, this doesn't explain why we can know one thought a priori and the other only a posteriori, nor does it explain why one thought is informative and the other not. But by having it that there are two thoughts, we allow for the possibility that one is knowable a priori and the other knowable a posteriori, one informative and the other not, whereas (17) does not provide for this possibility.

Still, we can ask how postulating senses accounts for the informativeness of (18). Again, according to the notion of information we have been working with, an assertion of a sentence conveys information when certain possibilities get ruled out as to how the world is or might be. What possibilities get ruled out by an assertion of (18), that is when one is told that Hesperus is Phosphorus?

A natural thought is that attributing distinct senses to 'Hesperus' and 'Phosphorus' makes (18) informative in the following way: the content of (18) is that the sense of 'Hesperus' and the sense of 'Phosphorus' denote a single object. It is informative to learn that the senses of these names denote a single object. The possibility that gets ruled out is that the senses of these names might each denote one of two objects.

However, this proposal runs into the same difficulties as the meta-linguistic view: it seems to get the subject matter of identity claims wrong, and consequently gets the modal behavior of such claims wrong as well. If 'Hesperus' and 'Phosphorus' were to have the senses that the names of my two cats have, then the senses of the names 'Hesperus' and 'Phosphorus' would not denote a single object, they would each denote one of my two cats. Consequently, on this proposal, if 'Hesperus' and 'Phosphorus' had the senses of my cat's

\[10\] For lack of a better term, given a referring expression \( \alpha \) that refers to \( r \), I will say that the sense of \( \alpha \) denotes \( r \).
names, Hesperus would not be Phosphorus. But this does not seem right. Even if one might want to allow that Hesperus might not have been Phosphorus, if that is one wants to allow for contingent identities, whether Hesperus is Phosphorus does not turn on anything about my cats and whether the names ‘Hesperus’ and ‘Phosphorus’ have senses that denote them.

It seems, then, that identity claims are neither about names nor about the senses of names. But this is not how postulating senses is thought to provide for the possibility of informative identity claims, and it is certainly not how Frege thought of it. Rather than thinking of identity claims as expressing a relationship between names or senses of names, we retain the view that identity is a relation between objects—identity is material identity. What introducing the notion of sense provides for is a view about the semantics of names that allows for the possibility that attributing this relation can be informative. One way of glossing the notion of sense that does this is to think of senses as having descriptive content.

For example, the descriptive content of the sense of ‘Hesperus’ is the evening star and the descriptive content of ‘Phosphorus’ is the morning star.

As a first approximation, we might suppose that ‘Hesperus’ and ‘Phosphorus’ are semantically equivalent to these descriptions, such that the content of (18) is that the morning star bears the relation of material identity to the evening star. Though it is not informative to learn that something bears the relation of material identity to itself, it is informative to learn that the evening star bears this relation to the morning star. That is, it is informative to learn that there is a unique $x$ which is the evening star and a unique $y$ that is the morning star and $x$ bears the relation of material identity to $y$, which—if identity is material identity—is just to say that $x$ is $y$. We put this formally as follows:

$$(25) \exists x \exists y [x \text{ is an evening star} \& \forall z (z \text{ is an evening star} \rightarrow z = x) \& y \text{ is a morning star} \& \forall z (z \text{ is a morning star} \rightarrow z = y) \& x = y]$$

The virtue of this proposal is that it does account for the informativeness of (18). It turns out to be informative, since it might have turned out that there were two objects, one of which is the unique evening star and the other of which is the unique morning star. This is the sort of possibility that (on this view) gets ruled out by an assertion of ‘Hesperus is Phosphorus’, and this is what makes an assertion of the sentence informative. It also accounts for why (18) is knowable only $a$ posteriori. We have to do some empirical investigation to find out whether there is a single object which is the unique evening star and the unique morning.
star—that a single object is situated in the heavens in this way.

It is important to note here that the move being made is to revise our conception of the semantics of proper names such that they behave like descriptions. It is this that opens up the possibility that there might be distinct objects to which these names refer—whatever satisfies the descriptive content of the sense of the name.

But it is precisely this move that it problematic. Kripke [18] has argued that proper names rigidly designate their referents, whereas descriptions do not. That is, as this is sometimes put, a proper name refers to the same object with respect to every possible world (every possible world with respect to which it has a referent at all). Descriptions do not. This comes out when we look at how counter-factuals get evaluated. Compare the following:

(26) Hesperus might have been a white dwarf.
(27) The evening star might have been a white dwarf.

It seems that (26) is false. Since it turns out that Hesperus is none other than the planet Venus, it could not have been a white dwarf. Plausibly, no planet could be a white dwarf. Though we can imagine how the matter that constitutes Venus might turn up in a neutron star, any such scenario would involve the destruction of Venus. By contrast, we can easily imagine how it might be that the evening star (the brightest star in the evening sky) might be a white dwarf. Thus, whereas (26) is false, it seems that (27) is true. Moreover, this difference is due precisely to the difference in the semantic behavior of ‘Hesperus’ and the ‘the evening star’. Proper names do not behave in modal contexts the way descriptions do.

There have been recent attempts to provide a different sort of account of the notion of sense, according to which senses do have a kind of descriptive content that accounts for the informativeness of identity claims without committing us to the view that proper names behave semantically like descriptions (e.g., in modal contexts). Evans [12] explores this idea. Very roughly, for Evans, the sense of a name is the way we identify the referent (in the actual world)—it determines what the name actually refers to. But the name rigidly designates whatever object that might be.

But there is a deeper problem with this Fregean approach insofar as it tries to build our conception of the referent of a name into the semantics of the language. Frege took it that the difference (18) and (19) is a semantic difference, a difference in the thoughts...
(18) and (19) express in virtue of what they mean. As we have seen, Frege's proposal was that the names 'Hesperus' and 'Phosphorus' have different senses and these senses partly constitute the thought expressed by a sentence containing them, and it is this that accounts for the difference in the informativeness of (18) and (19). Frege thought of senses as the mode of presentation of the referent, or—to put it less metaphorically—the way in which we conceive of the referent. Frege seems to have thought of the sense of a name as (for the most part) a shared conception of its referent, shared by competent speakers. This is what makes it plausible to regard the sense of a name as constitutive of the content of sentences that contain the name, as being properly regarded as part of the semantics of the language.

Frege acknowledges that it often happens that different speakers have different conceptions of the referent of a name, though he viewed this as a defect of language. But far from being an linguistic aberration, it seems instead to be the norm that speakers have differing conceptions of the referent of a name. It has perhaps fed the view that competent speakers do have a shared conception of the referent of a name that the common philosophical examples use the names of public figures (presidents and such), for which we do share some conception of the referent of the name. But consider the ordinary sort of case, which doesn't involve persons of vast fame and reputation. Imagine that you have a lawyer whose name is 'Keith'. You may know Keith as your lawyer and conceive of him as your lawyer. Yet this is not how Keith's friends and family conceive of him. Some of his acquaintances may not even know that he is a lawyer. Other lawyers may have only corresponded with Keith, not having met him personally and may not know what he looks like. Is there a some conception of Keith shared by everyone who understands sentences containing his name—including those who have perhaps never seen or met Keith in person—that could be plausibly regarded as part of the semantics of sentences containing that name? It seems implausible that that there is any shared conception of any substance, other than perhaps the shared conception of Keith as the referent of the name 'Keith'. In the typical case, then, there will be not shared conception of the referent of a name, other than the shared conception of the referent as the referent of the name.

Consequently, insofar as the sense of a name is supposed to be a shared conception of the referent, the descriptive content of the sense of a name need not amount to any more than the characterization of the referent as the referent of the name. The sense of any name \( \alpha \) is simply the referent of \( \alpha \). If it is this shared conception that constitutes the sense of
a name, and thus what goes into the content of sentences containing the name, then the content of $\gamma \alpha$ is $\beta^3$ will just be that the referent of $\alpha$ bears the relation of material identity to the referent of $\beta$. But then the information conveyed by $\gamma \alpha$ is $\beta^3$ is just the information that $\alpha$ and $\beta$ are co-referential. No more substantive information is conveyed. But, as with the meta-linguistic view, this seems to get the subject matter of identity claims wrong. It does not do justice to the interest we take in identity claims—e.g., in whether Haig is Deep Throat—to suppose that their content, the information they convey in virtue of their meaning, is information about language.

On the other hand, if we insist that the sense of a name consists in a richer conception of the referent, then we have to give up on the idea that this conception is shared, since typically no richer conception will be shared by all competent speakers. That is, names will have different senses for different speakers. But then we either have to give up on the idea that senses are constitutive of the content of sentences, or we have to suppose implausibly that what thought a sentence expresses depends on the speaker or hearer's conception of the referent.

This, it seems to me, is the deep problem for any Fregean treatment of identity, with any attempt to account for the informativeness of identity claims within the semantics of the language: any substantive account of the notion of sense that could account for the substantive information we derive from identity claims—the information we are interested in—will not be shared by speakers of the language. Consequently, it seems we cannot account for the informativeness of identity claims in terms of the semantics of the language without giving up on the idea that semantics of the language does not vary from speaker to speaker.

Having said that, I will try to make a case for the view that the informativeness of identity claims is to be accounted for within the semantics of the language. Identity claims are informative in virtue of what they mean, or—as I will put it—in virtue of what information they have the function of conveying. First, however, I want to look at the alternative, which is to treat the informativeness of identity claims as a pragmatic phenomenon, not a semantic one.
4.5 Stalnaker’s Pragmatic Account

4.5.1 2-Dimensional Semantics

Rather than trying to account for the informativeness of identity claims within the semantics of language, Stalnaker [22] provides an attractive pragmatic account. Stalnaker accepts the standard account of the proposition expressed by a sentence of the form \( \alpha = \beta \), given by (17), though for Stalnaker this amounts to the necessary proposition. To address the informativeness problem, Stalnaker accounts for the informativeness of identity claims in his theory of assertion, rather than in the semantics of such sentences. According to Stalnaker, the proposition literally expressed by an identity claim is uninformative, but speakers can nevertheless pragmatically assert an informative proposition by assertively uttering an identity claim in the right context. Stalnaker’s account of how we pragmatically assert an informative proposition by uttering an uninformative identity sentence is given in terms of possible worlds semantics, specifically what he calls 2-dimensional semantics. Before turning to his account of the content of identity claims, it will be necessary to first explain the apparatus of 2-dimensional semantics.

Sentences express propositions. Speakers assert them. To express or assert a proposition is to distinguish the actual world from among the various possible worlds. For those with metaphysical qualms about talk of possible worlds, this picturesque way of speaking can be glossed alternatively as: to express or assert a proposition is to distinguish the way the world is from among the various ways the world might be. Not having such metaphysical qualms, I will continue to speak of possible worlds.

According to Stalnaker, there is a one-one correspondence between propositions and sets of possible worlds. A proposition determines one set of worlds. A proposition represents the world as being a certain way, and this determines a set of worlds—viz., the worlds that are that way. In turn, a set of worlds also determines one proposition. To locate the actual world in a set of worlds is to represent to world as being a certain way—i.e., to express a certain proposition. Because there is this one-one correspondence between propositions

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\[\text{11}^\text{I will say that a proposition represents the world as being a certain way. This may be metaphysically suspect. Perhaps we do not want to suppose that proposition—inde} \]

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and sets of worlds, Stalnaker just represents a proposition as a set of possible worlds—the worlds that are the way represented by the proposition. Equivalently, we can represent a proposition as a function from possible worlds to truth values—a function that yields the value true for all and only the worlds that are the way represented by the proposition and the value false otherwise.

Stalnaker’s 2-dimensional semantics is meant to represent two roles that possible worlds—ways the world is or might be—play in determining the truth value of a sentence. First, the way the world is determines which proposition is expressed by the sentence on an occasion of utterance. This comes out most clearly in the case of sentences containing indexical expressions—e.g., ‘he is a liar’. Second, whether the proposition expressed by that assertion is true in turn also depends on the way the world is. To illustrate, suppose that the sentence ‘he is a liar’ is uttered on a particular occasion. The proposition expressed by the sentence depends on who ‘he’ denotes on that occasion of utterance. If Al Gore is denoted, then the sentence expresses the proposition that Gore is a liar. If George W. Bush were denoted or Pat Buchanan, then the propositions expressed would be, respectively, that Bush is a liar or that Buchanan is a liar. This is the first role the world plays in determining the truth value of the sentence. The second role the world plays is this: whether the proposition expressed on that occasion is true depends on who the liars are. Suppose the proposition expressed is that Gore is a liar. Then whether the sentence expressed a truth on that occasion depends on whether Gore is a liar.

To flesh out the example a bit, let us suppose that three political partisans—a Democrat, a Republican and a Reformer—all overhear an utterance of the sentence ‘he is a liar’. The Democrat thinks that both Bush and Buchanan are liars, but believes Gore not to be. The Republican thinks that both Gore and Buchanan are liars, but believes that Bush is scrupulously honest. The Reformer thinks that only Gore is a liar. Moreover, each uncharitably interprets the disparaging remark as having been made about a member of the other party; the Democrat takes it to have been made of Bush, the Republican takes it to have been made of Buchanan, and the Reformer takes it to have been made of Gore. Let d, r and e, respectively, be the ways the world is believed to be according to the three partisans:

\[ d: \text{‘he’ (on that occasion) denotes Bush. Bush and Buchanan are liars, but Gore is not.} \]
\( r \): ‘he’ denotes Buchanan. Gore and Buchanan are liars, but Bush is not.

\( e \): ‘he’ denotes Gore. Gore is a liar, but Buchanan and Bush are not.

As previously suggested, we can represent propositions as functions from worlds to truth values. Consider the proposition the Democrat believes was expressed, viz. the proposition that Bush is a liar. This proposition can be represented as follows:

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This depicts the proposition the Democrat believes was expressed (viz. that Bush is a liar) which is true only with respect to the world the Democrat believes to be actual (of the three worlds characterized above).

But this depicts only one of the ways in which the truth value of the sentence depends on the way the world is. The truth value of the sentence also depends on which proposition is expressed. The following matrix represents both of the ways in which the truth value of the sentence depends on the way the world is:

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The first row again represents the proposition the Democrat believes was expressed. The second row represents the proposition the Republican believes was expressed—viz., that Buchanan is a liar. This proposition is true in the worlds the Republican and Democrat believe to be actual. The third row represents the proposition the Reformer believes was expressed—viz. that Gore is a liar—which is true in the worlds he and the Republican believe to be actual.

In addition to these propositions, the diagonal of the matrix constitutes a representation of another proposition. It is a proposition that is true in all three worlds.
This reflects the fact that all three partisans have both an uncharitable view about the honesty of a rival party's candidate and an uncharitable interpretation of the disparaging remark as having been made about that person. They all agree that the candidate referred to on that occasion is a liar, though they disagree on who was referred to.

That the sentence, as uttered, is true each of the worlds is not meant to suggest that a necessary truth was expressed. We are only considering only three possible worlds, each of which is taken to be actual by one of the partisans. That the value true occurs all down the diagonal merely reflects their general background agreement that someone was truly said to be a liar.

This brings us to the next important part of Stalnaker's account of assertion: speaker presupposition and context sets. In any conversational context, speakers make certain presuppositions about how the world is. Presuppositions are just presupposed propositions. Stalnaker stresses that presupposing propositions is something we speakers do, not something sentences do. Presupposing a proposition consists in being disposed to behave as though you believe it is true. Presupposing a proposition is not something we need consciously and deliberately engage in, insofar as being disposed to behave in certain ways is not something we consciously and deliberately do (I will have more to say on this point later).

A proposition is presupposed by a speaker just in case that speaker takes the proposition to be common knowledge among the participants in the conversation. The presuppositions of a speaker are the propositions he takes everyone in the conversation to accept as true.

A context set is a set of worlds consistent with a given set of presuppositions. This provides an intuitive way of representing presuppositions. Given a set of presuppositions—i.e., presupposed propositions—the corresponding context set is just the set of possible worlds consistent with those presuppositions. Intuitively, worlds in the context set are the "live options" as to the way the world might be, and they are live options in virtue of not being ruled out by some presupposition. Each participant will have his or her own presuppositions, corresponding to which there will be a context set. If speakers have

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different presuppositions, then their context sets are **defective**, if they have the same presuppositions, then the corresponding context set is **non-defective**.

The notion of a context set provides a way of representing assertion. Assertion is the basic way in which we employ language to communicate information about the world to one another. Information about the world is communicated when certain previously open possibilities as to how the world might be have been ruled out. Since the context set represents the open possibilities as to how the world might be, we can represent the communication of information as a reduction in the possible worlds in the context set. In particular, the information communicated by an assertion can be represented by such a reduction in the context set. Specifically, an assertion of a proposition rules out (as live possibilities for being actual) those worlds with respect to which the proposition is not true.

One might worry that this misrepresents assertion. Reducing the context set requires changing the presuppositions of the participants by their having actually accepted what you asserted, and yet it seems that you could assert some proposition without your audience accepting it as true. But we needn’t worry about this. Stalnaker’s project is not to provide an analysis of the notion of an assertion but is rather to provide a theoretical model of the communicative upshot of assertion. And the communicative upshot of assertion is a reduction in the open possibilities in the context set. Stalnaker’s aim is to capture what assertion does, not what assertion is.

In the simplest case, the proposition asserted is determined simply by the semantics of the sentence uttered. For example, a speaker who utters ‘Berlin is the capital of Germany’ straightforwardly asserts the proposition that Berlin is the capital of Germany, and asserts this merely in virtue of the compositional semantics of the sentence uttered. This contrasts with context sensitive sentences, such as sentences containing indexical expressions. Which proposition is expressed by the sentence ‘He is a liar’ depends not only on the semantics of the sentence, but also depends on the context in which the sentence is uttered. Said in reference to George W. Bush, the sentence expresses the proposition that Bush is a liar. Said in reference to Al Gore, it expresses the proposition that Al Gore is a liar. The proposition asserted by the speaker who utters the sentence in that context is the proposition that the sentence expresses with respect to that context. All of this is in accordance with the conventional meaning of the sentence ‘He is a liar’.

This contrasts with what I will call pragmatic assertions. Pragmatic assertions involve
a departure from the conventional meaning of a sentence, in just the way that Gricean implications do. As on Grice's account, by uttering a sentence $S$, a speaker can succeed in conveying a proposition other than the one conventionally expressed by $S$ when the proposition conventionally expressed by $S$ violates certain conversational principles. This is a two-stage process. In the first stage, the conventional meaning of $S$ (or the possible meanings of $S$ in the context set) determines a proposition (or propositions) that the sentence expresses in virtue of its conventional meaning and, perhaps, certain elements of context. If the proposition conventionally expressed by $S$ violates the conversational principles, then—this is the second stage—a proposition is conveyed that is not the one expressed by the sentence uttered. In contrast with Grice's account, however, the principles Stalnaker identifies as governing assertion are not mere conversational norms, but are rather what Stalnaker takes to be necessary conditions for rational communication. A proposition that is conveyed in virtue of violating a conversational principle can be asserted on Stalnaker's account, and not merely implied, as on the Gricean story.

What the apparatus of 2-dimensional semantics provides is an account of how the proposition that is pragmatically asserted is determined. In the right context, it is the diagonal proposition that is pragmatically asserted, even though the diagonal is not (at least not typically) the proposition the sentence expresses. This is the basis for Stalnaker's account of what proposition is pragmatically asserted by a speaker who utters an identity sentence. It is to that account I shall now turn.

4.5.2 Assertions of Identity

As I have suggested, Stalnaker maintains that an assertive utterance of an identity sentence can be informative, even when the proposition expressed by such a sentence is not informative. We have seen why the proposition expressed by an identity claim is uninformative. Consider the true sentence

(28) Ziggy Star dust is David Bowie.\textsuperscript{12}

\textsuperscript{12}David Bowie has a rather complicated nomenclature. His given name was 'David Jones'. In the late 60's, he originally went by the stage name 'Davie Jones'. However, in order to avoid being confused with the Davie Jones of the then popular group the Monkeys, he changed his stage name to 'David Bowie'. The name 'Ziggy Star dust' was originally introduced as the name of a fictional character of a concept album released by David Bowie in the early 70's. However, Bowie adopted the character as a stage persona until he retired the character in 1973. In light of the fact that David Bowie shed that character, it might be appropriate to say that David Bowie was Ziggy Star dust, but is no longer. In that case, we can imagine the identity claim
Stalnaker accepts the standard account of the content of (28), according to which—given that both ‘Ziggy Stardust’ and ‘David Bowie’ both in fact refer to the same person—(28) expresses the proposition that David Bowie bears the relation of material identity to himself. As we have seen, this is a relation that David Bowie bears to himself necessarily. Suppose that \( a, b \) and \( c \) are the worlds in our context set. The proposition that David Bowie bears the relation of material identity to himself is true in every world, \textit{a fortiori} every world in the context set. Hence, we can represent the proposition expressed by (28) as follows:

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That is, (28) expresses the proposition that is true with respect to every world in the context set. This proposition conveys no information about the world, and in particular about David Bowie. It fails to rule out any possibilities as to how the world might be. And since no possibilities are ruled out as to how the world might be, no information is conveyed about how the world is.

However, if the context set leaves it open whether the names ‘Ziggy Stardust’ and ‘David Bowie’ refer to the same person, then there will be possible worlds in the context set with respect to which (28) does not express the necessary proposition. Suppose, for example, that our context set leaves it open whether ‘Ziggy Stardust’ denotes David Bowie or some other figure of the “glam rock” era of the early 70’s, say, Peter Gabriel, or Brian Ferry. If ‘Ziggy Stardust’ were to denote Peter Gabriel, then the (28) will express the proposition that Peter Gabriel bears the relation of material identity to David Bowie, which is of course not true, and not true with respect to any world. So, with respect to the world in which ‘Ziggy Stardust’ denotes Peter Gabriel, (28) would express the necessarily false proposition, and similarly with respect to the world in which ‘Ziggy Stardust’ denotes Brian Ferry. Let \( a \) be the actual world, in which ‘Ziggy Stardust’ refers to David Bowie, and let \( b \) and \( c \) be the worlds in the context set in which ‘Ziggy Stardust’ refers to Peter Gabriel and Brian Ferry respectively. Then the following matrix represents the propositions expressed by ‘Ziggy Stardust is David Bowie’ with respect to each of the worlds in the context set:

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being evaluated with respect to 1972, when it was true to say that Ziggy Stardust is David Bowie.

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There is no world with respect to which the sentence expresses an informative proposition. To convey information, a proposition must be true with respect to the actual world, and it must be true with respect to some (non-empty) proper-subset of the context set. This conveys information by locating the actual world within the context set. However, (28) fails to do this. With respect to $a$, it expresses the proposition that is true with respect to every world. With respect to $b$ and $c$, it expresses the proposition that is true with respect to no world. This fails to distinguishing the actual world from the non-actual possible worlds.

However, there is a proposition represented in the matrix—what Stalnaker calls the diagonal proposition—that does succeed in doing this, a proposition that is therefore informative. This is the proposition that is true with respect to $a$, but false with respect to $b$ and $c$.

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This is the proposition we might express by saying that the sentence ‘Ziggy Stardust is David Bowie’ expresses a truth.

The diagonal proposition represents the following. The context set leaves it open of whom (28) predicates that he bears the relation of material identity to David Bowie—leaves it open whether this is predicated of David Bowie, Peter Gabriel or Brian Ferry. So the context set leaves it open whether (28) is to be semantically interpreted with respect to world $a$, $b$, or $c$. Nevertheless, whichever world it is we are to interpret (28) with respect to, in order to determine which proposition it expresses, we are also to evaluate the truth or falsity of that proposition with respect to that world. Whichever world we are in—be it $a$, $b$ or $c$—we both interpret and evaluate the truth or falsity of (28) with respect to that world. Hence, we can say that if we are in $a$, then (28) expresses a truth, otherwise it expresses a falsehood. This is captured by the diagonal of the propositional matrix.

As I have already suggested, if certain conversational principles are violated, a speaker can succeed in pragmatically asserting the diagonal proposition determined by an utterance
of a sentence, even though the sentence does not itself express that proposition. According to Stalnaker, identity sentences violate the requirement that one make only informative contributions to a conversation. It is because this principle is violated that the informative diagonal proposition, rather than the uninformative horizontal proposition is conveyed by an utterance of an identity sentence.

It is in this way that Stalnaker accounts for the informativeness of identity claims. Though the proposition expressed by an identity sentence is not informative, in typical conversational contexts uttering an identity sentence violates the conversational principle that requires one to make an informative contribution to the conversation. And it is in virtue of violating this principle that a speaker can succeed in asserting an informative proposition by uttering a sentence that is not itself informative.

Thus, Stalnaker’s account of the informativeness of identity claims requires that there be a distinction between the proposition a sentence expresses and the proposition that a speaker asserts by uttering that sentence. As we have seen, the proposition expressed by a sentence is a semantic phenomenon; it is determined by the semantic properties of the expressions that make up the sentence, in accordance with its syntactic structure. The proposition asserted is, or at least can be, a pragmatic phenomenon, a pragmatic phenomenon that is parasitic on the semantics of the sentence. A proposition is pragmatically asserted only when the proposition conventionally expressed by the sentence violates some conversational principle.

This makes the standard account of the content of identity claims—viz. (17)—essential to Stalnaker’s view. Recall, according to (17), the sentence ‘Ziggy Stardust is David Bowie’ expresses the proposition that David Bowie bears the relation of material identity to himself. Since he bears this relation to himself necessarily, the proposition expressed by the sentence fails to rule out any other possibilities, and hence the sentence is uninformative, at least in virtue of the proposition it expresses. Because the proposition expressed by this sentence is uninformative, asserting it violates a conversational principle requiring speaker to make only informative contributions to a conversation. And it is because this principle is violated that a different proposition is actually asserted.

The account of which proposition is asserted is given by Stalnaker’s two-dimensional semantics. The asserted by the speaker is the diagonal proposition of the matrix determined by the various necessary propositions that might have been expressed by the sentence the
speaker uttered. Which propositions the sentence might express depends on what the referring expressions might—the open possibilities in the context set—refer to.

4.5.3 Proposition Expressed vs. Propositions Asserted

Stalnaker's view provides for a distinction between the proposition that (28) expresses—the necessarily true proposition that David Bowie bears the relation of material identity to himself—and the contingently true proposition that a speaker can assert by uttering (28)—the proposition that (28) expresses a truth. But once we have made this distinction, it seems clear that—in ordinary discourse—we almost never have occasion to employ the proposition expressed by such a sentence. What I want to take issue with about Stalnaker's account is whether, in the case of identity claims, we can sustain the distinction between the proposition that a sentence expresses and the proposition that a speaker asserts by uttering it. I do not mean to suggest that there is not an important distinction to be drawn here, but I do not think that this distinction can be sustained in the case of identity, at least in the way that Stalnaker's account requires the distinction to be drawn.

First, we need to get a bit clearer about what the distinction is supposed to be. A sentence expresses a proposition. This is something the sentence does, or a property that the sentence has. The proposition a sentence expresses is tied to its meaning or its semantics. Expressing a proposition is a semantic phenomenon.

Of course, many sentences do, or at least can, express more than one proposition (e.g., sentences containing indexical expressions). So we should instead talk of the proposition a sentence expresses with respect to a given context of utterance. Since contexts of utterance are, on Stalnaker's view, just possible worlds, we can also talk of the proposition a sentence expresses with respect to a given world (qua context of utterance). Even here, there will be some contexts of utterance with respect to which a sentence will be genuinely ambiguous, expressing more than one proposition. But we needn't be concerned with such cases here. The point is just that which proposition a sentence expresses can also be context sensitive.

According to Stalnaker, a speaker who, in world $w$, utters a sentence $S$ that expresses a proposition $p$, with respect to $w$, can nevertheless succeed in asserting a distinct proposition $q$ ($p \neq q$), if uttering a sentence that expresses proposition $p$ violates some conversational principle. That a speaker asserts $q$ by asserting a sentence that expresses $p$ is a pragmatic phenomenon. What makes the assertion of $q$ a pragmatic phenomenon is this: the speaker
asserts \( q \) by asserting \( S \), not in virtue of what \( S \) means, but rather in virtue of violating a conversational principle. This exploits features of the conversational context to affect a departure from the conventional meaning of \( S \).

It is not the mere fact that context plays a role in determining the content of the utterance that makes it a pragmatic phenomenon. The content of sentences containing indexical expressions is partly determined by context. But this is not a merely a pragmatic phenomenon, since the content of such sentences is in accordance with, not a departure from, their conventional meaning.

Stalnaker is committed to supposing that \( \equiv \alpha \equiv \beta \equiv \) conveys the proposition that the referent of \( \alpha \) bears the relation to the referent of \( \beta \), and that it expresses this proposition in virtue of the conventional meaning of \( \equiv \alpha \equiv \beta \equiv \). If we suppose otherwise, then it is a complete mystery why \( \equiv \alpha \equiv \beta \equiv \) would convey this proposition at all. What else would make it the case that \( \equiv \alpha \equiv \beta \equiv \) expresses this proposition, if not its conventional meaning?

So we can take Stalnaker’s view to be that the informativeness of identity claims is due to a departure from, not in virtue of, the conventional meaning of such sentences. In virtue of the conventional meaning of ‘Bubba is Bill Clinton’, it expresses the proposition that Bill Clinton bears the relation of material identity to himself. It is because this is uninformative, thus violating a conversational requirement to make informative contributions, and because someone might be genuinely uncertain which proposition this sentence expresses (in virtue of being uncertain whether expressions flanking ‘is’ are co-referential) that someone can nevertheless succeed in asserting something interesting. This is in spite of, not in accordance with, the conventional meaning of such sentences.

But then the problem is that the conventional meaning of such sentences starts to look quite useless. We must bear in mind that the ‘is’ of identity is a device in natural language. We use it all the time. It is not, at least not in the first instance, a technical device of logic and mathematics. When in ordinary usage do we have occasion to genuinely assert of a thing that it bears the relation of material identity to itself. When do we ever assert a sentence of the form \( \equiv \alpha \equiv \beta \equiv \) with the intention of asserting of a thing what we already know cannot fail to be the case, viz., that it bears the relation of material identity to itself? I am confident that we rarely, if ever, have such occasion.

Typically, identity claims are employed in ordinary language, not to predicate of a thing that it bears a certain esoteric relation to itself, but in rather more mundane ways:
(29) Steve is that guy over there.

(30) Cisero and Tully are the same person.

(31) That is Venus.

(32) The same person committed all three murders.

(33) Here is where it happened.

On Stalnaker's view, the propositions expressed by these sentences are, respectively:

(34) Steve bears the relation of material identity to himself.

(35) Cisero bears the relation of material identity to himself.

(36) Venus bears the relation of material identity to itself.

(37) The murderer bears the relation of material identity to himself.

(38) Here (this place) bears the relation of material identity to itself.

These are the propositions determined by the conventional meaning of the sentences. (Of course, on Stalnaker's view, these are all the same proposition—viz., the necessary proposition.) The interesting and informative propositions conveyed by (29)–(33) are conveyed pragmatically in virtue of the fact that uttering a sentence that is not informative (in virtue of its conventional meaning) violates the requirement that one make only informative contributions to a conversation. Thus, in the right conversational context, (29)–(33) can be used to convey, again respectively, the following propositions:

(39) The guy over there is called 'Steve'.

(40) 'Cisero' and 'Tully' name a single person.

(41) The planet demonstratively indicated is called 'Venus'.

(42) A single person committed all three murders.

(43) The event in question occurred at this location.
But is only by the pragmatic mechanism of first violating the informativeness requirement that these sentence come to convey these propositions.

But (29)–(33) are all paradigmatic uses of identity claims. The uses to which 'is' and 'same' are put in these sentences are archetypal uses of these expressions, and the information they are used to convey in these contexts is the sort of information they are in the business of conveying. Their primary function is to convey the sort of information given by (39)–(43), not the information given by (34)–(38). Indeed, it is only in very unusual circumstances, if any, that we would use sentences (29)–(33) in a way intended to be understood as (39)–(43), respectively.

Even if one does not subscribe to a use-theory of meaning—the view that the meaning of a word is just the use it has in the language—it is natural to suppose that the proposition that a sentence expresses in virtue of its conventional meaning cannot be at odds with the proposition it is typically used to convey. At any rate, these cannot be at odds indefinitely. That is, if a sentence $S$ is typically used to convey a proposition $p$, then it cannot, at least not indefinitely, be that $S$ expresses, in virtue of its conventional meaning, some other proposition $q (q \neq p)$. Why? The conventional meaning of a sentence is determined by the norms governing its use. Norms governing the use of a sentence accord, except in unusual circumstances, with how the sentence is typically used. Though there are pragmatic mechanisms for departing from conventional meaning, if such a pragmatic departure from the conventional use meaning of a sentence itself becomes conventional, then the norms of use will eventually change, and we get a change in the conventional meaning.

Metaphors are a good example of an initially pragmatic phenomenon that eventually becomes conventionalized. In the right context, someone who utters $S$ asserts (or at least implies) that $q$, though the sentence uttered literally expresses the proposition that $p$. Such metaphorical use is a pragmatic phenomenon. But a metaphor dies, if it is to commonly used. A metaphors dies when an initially pragmatic departure from the conventional meaning of a sentence itself becomes conventional. Then the metaphorical use becomes one of the conventional meanings of the sentence.

So we should expect that if a sentence is commonly used to pragmatically convey a

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13 On the view of information we have been working with here, (34)–(38) do not convey any information at all. No possibilities get ruled out by a thing's bearing the relation of material identity to itself, since things could not have been any other way.
certain proposition that it does not express in virtue of its conventional meaning, then the sentence will eventually come to have a new meaning, such that the proposition that was initially conveyed only pragmatically will come to be expressed by the sentence in virtue of its newly acquired meaning. Let us accept that sentences of the form \( \alpha \) is \( \beta \) initially have a conventional meaning in virtue of which they express the proposition that the referent of \( \alpha \) bears the relation of material identity to the referent of \( \beta \). Even if we accept this, such sentences are only rarely used in this way. They are almost always used to convey an informative proposition, what Stalnaker calls a diagonal proposition. We should expect, then, that in virtue of being so widely used in this way, this informative use would become conventionalized, and identity claims would come to have a new conventional meaning in virtue of which the sentence comes to express the diagonal proposition, rather than merely providing a pragmatic device for speakers to assert such a proposition. At all events, if we are to maintain, as Stalnaker does, that the diagonal remains a pragmatic phenomenon (asserted by speakers without being expressed by the sentence uttered), then there should be some explanation of why this content does not become a conventional meaning of the sentence.

Moreover, why do identity claims continue to have the meaning according to which they predicate the relation of material identity. Not only do sentence acquire new meanings when they come to be used in a certain way, they also lose meanings when they cease to be used in certain ways. Some meanings of sentences become obsolete. Why do identity claims continue to express the relation of material identity, when we almost never have occasion in ordinary usage to talk about this relation?

The challenge, then, is this: if Stalnaker is right, and the informative proposition that is conveyed by a sentence of the form \( \alpha \) is \( \beta \) is not expressed by the sentence in virtue of its conventional meaning, then given that it is this proposition we usually employ the sentence to convey, why doesn’t the sentence acquire a new meaning in virtue of which this proposition is expressed? Moreover, given that we almost never have occasion to convey propositions about the relation of material identity, why do such sentences retain this meaning?

There is a natural response for Stalnaker. For a sentence to come to express a certain proposition is not merely a matter of its being assigned the role of expressing a certain proposition. The proposition a sentence expressed by a sentence is determined by the mean-
ings of the expressions of which it is composed, in accordance with its syntactic structure. And we might suppose that this puts certain constraints on the meaning of 'is' such that it has to expresses a relation between objects, specifically the relation of material identity. It is the fact that 'is' get flanked by referring expressions, rather than meta-linguistic devices, that fixes that 'is' is a relation between objects.

However, it doesn't seem in general that the grammatical category of the surrounding referring expressions fixes the semantic interpretation of a predicate. Consider, for example, the way we ordinarily report the names of things. If someone asks me the name of my cat, I might say something like:

(44) She is called Violet.

Note that this is without the usual quotation device. This is meant to reflect how we ordinarily report the names of things. Ordinarily, we don't use quotation devices in ordinary speech. In this context, I might have put quotes around the name to make explicit that it is the name 'Violet' that is being talked about. But in ordinary speech we use no such device. But the fact that we use names in this way, without any sort of mention device, does not force us to understand 'is called' as a relation between an object and itself, in this case between my cat and herself. Rather, 'is called' expresses a relation between between an object and its name, between Violet and 'Violet'.

The problem for Stalnaker is this: why doesn't the 'is' of identity get the same sort of meta-linguistic interpretation, given that it is this meta-linguistic information that the word is normally used to convey? Why doesn't this become constitutive of the meaning of 'is'. There does not seem to be anything in our normal use of the word that would confer on 'is' the interpretation according to which it expresses the relation of material identity, rather than, say, the relation of co-reference.

4.6 Identity & the Perceptual View of Understanding

What I have tried to show is that there are difficulties both with treating the informativeness of identity claims as a semantic phenomenon, as Frege does, and with treating it as a pragmatic phenomenon, as Stalnaker does. Recall, the problem with the Fregean approach is that there typically will not be a sufficiently rich conception of the referent of a name that is shared by all competent speakers, a conception that could plausibly be the sense of the
name. The sense of a name—this shared conception of the referent—is supposed to have
descriptive content that both (i) accounts for the informativeness of identity claims and (ii)
is part of the content of the thought expressed by sentences containing the name, including
identity claims. Where there is a shared conception of the referent of a name, this seems
very plausible: when we want to know whether Haig is Deep Throat, it seems what we
want to know is whether Haig is the person who was a certain key figure in the Watergate
scandal. The problem is that there is no guarantee that there is such a substantive shared
conception of the referent of a name, and very often there will not be. In the limiting case,
the only shared conception of the referent of a name is as the referent of the name. But then
the sense of any name \( \alpha \), insofar as the sense is a shared conception of referent of \( \text{alpha} \), will
just be the referent of \( \alpha \). But if this is the descriptive content that goes into the thought
an identity claim expresses, then the content of any identity claim of the form \( \alpha \) is \( \beta \) will
be simply that the referent of \( \alpha \) bears the relation of material identity to the referent of \( \beta \).
But then the only information conveyed semantically is, as with the meta-linguistic view,
that \( \alpha \) and \( \beta \) are co-referential. But then the Fregean story seems to mis-locate the subject
matter of identity claims and fails to account for why we find identity claims interesting.

Stalnaker tries to avoid this problem by giving a pragmatic account of the informative-
ness of identity claims. The interesting information conveyed by identity claims is prag-
matically asserted, not conveyed semantically in virtue of what the sentence literally says.
But it is precisely by divorcing the interesting work that identity claims seem to do in the
language from the semantics of such sentences that we get into trouble. Suppose we draw
the distinction Stalnaker makes between the necessary proposition an identity sentence ex-
presses, which does not seem to do any work in the language, and the useful contingent
proposition a speaker can assert by uttering such a sentence. Precisely because the latter
proposition captures the useful work that identity sentences do in the language, we cannot
explain why this proposition is not what is conventionally expressed by such sentences,
rather than merely being pragmatically asserted.

What I want to try to show now is that the perceptual view of understanding language
provides the resources for an account of identity that avoids both the central difficulty of
Frege’s semantic approach and the central difficulty of Stalnaker’s pragmatic approach. On
the view I will present, the informativeness of identity claims is a semantic phenomenon. As
I will put it, the information typically conveyed by identity claims is information they have
the function of conveying. By contrast with the Fregean view, the content of an identity claim of the form \( r \alpha \) is \( \beta \) does not build in any particular conception of the referents of \( \alpha \) and \( \beta \).

The approach I will take is to look at the kind of work an utterance of an identity claim does in language cognition and then work backwards to an account of the work such a claim is supposed to do in the language. On the view I will advance here, identity claims convey information by exploiting a special kind of cognitive mechanism, and understanding this is essential to understanding how identity claims work as a semantic device.

As a model for the kind of work done in language cognition by an utterance of an identity claim, I will draw on certain parallels with a related perceptual phenomenon, namely recognition. Identity claims are not only supposed to convey certain information, they are supposed to do so in a certain way—by producing a certain kind of state in language cognition. The kind of state that an utterance of an identity claim is supposed to produce is the kind of state produced in perception by object recognition.

To preview, the idea is this. The normal way in which information is acquired through both perception and language cognition is by the production of a perceptual state that has a certain significance. According to the view I will advance here, both object recognition and identity claims involve conveying information, not by producing perceptual states that antecedently have a certain significance, but rather by bringing it about that perceptual states have a certain significance—by causing them to have that significance. In this respect, both recognition and identity claims are a kind of meta-representational phenomenon that is parasitic on the normal mechanism for conveying information.

### 4.6.1 Recognition: Identity in the Visual Mode

Imagine that you are walking down the street and someone is approaching in the distance. Suppose that, as it turns out, the person approaching you is Harrison Ford, though initially you don't realize that he is the person approaching. Suppose that he is 100 feet away at time \( t_1 \), and at that time you see him without recognizing him. But by the time he is 20 feet away—let this be time \( t_2 \)—you come to recognize him.

When you recognize Mr. Ford, you acquire new information about the world—you discover something at \( t_2 \) that you were unaware of at \( t_1 \). Moreover, you acquire this information visually. At \( t_2 \), you see something about the world that you were unable to see at
$t_1$. What might that be? What gets represented in your visual experience at $t_2$ that isn’t representing in your visual experience at $t_1$?

The first thing to note is that the following is the wrong kind of story to tell about the representational content of your visual experience. Namely, Harrison Ford bears this relation to himself—the relation of material identity. At $t_1$, when he is 100 feet away, you cannot see that he bears this relation to himself. His bearing this relation to himself is not in view at this distance. But at $t_2$, when he is only 20 feet away, you spot it. You can see that Harrison Ford bears this relation to himself.

We have already seen why this cannot be right: Harrison Ford’s bearing the relation of material identity to himself does not generate any information. To generate information, an event must rule out possibilities that might otherwise have obtained. But Harrison Ford could not have failed to bear the relation of material identity to himself. Consequently, his bearing this relation to himself does not rule out any possibilities that might otherwise have obtained, and hence learning that he bears this relation to himself is uninformative. So whatever information you acquire in virtue of recognizing Harrison Ford, it cannot be the information that he bears the relation of material identity to himself.

Even without appealing to the notion of information, it is simply a very odd idea that one might see something’s bearing the relation of material identity to itself at one time but not another time, or that only from a certain distance can one see that a thing bears this relation to itself. What would it look like to see that something bears this relation to itself? How might this be reflected in one’s perceptual experience? This is a very obscure idea. But if this is not the right account of the representational content of your experience, then what is the right account?

Recognition is naturally characterized as a perceiving-as phenomenon. When Harrison Ford is 100 feet away, you can see him—you see Harrison Ford—but you don’t see him as Harrison Ford until he gets closer. Though it is Harrison Ford who is represented in your experience all along—as it turns out, that’s the guy you’re looking at—he only gets represented as Harrison Ford when he gets close enough.

This fits with the neuropsychological evidence we saw in Chapter 3. As I mentioned, prosopagnosia is a neurologic impairment of the ability to recognize faces that spares the ability to see and recognize facial features and other kinds of objects. That is, a prosopagnosics can see the features of a person’s face, their eyes, nose, mouth, and so on, without
being able to identify whose face they are seeing. Thus, someone with prosopagnosia could see Harrison Ford's face without seeing it as Harrison Ford's face. And the natural way to put this is to say that the prosopagnosic sees Harrison Ford without seeing him as Harrison Ford. What this suggests is that our visual experience of people normally comes to us already interpreted, specifically interpreted for the identity of the person we are seeing. Unlike the prosopagnosic, we see Harrison Ford as Harrison Ford.

As we have seen, Dretske's account of the representational content of experience provides a way of understanding what is going on here, what this sort of perceiving-as phenomenon amounts to. The change your experience undergoes when you recognize someone is a change in the content of your experience, specifically a change in the conceptual content of your experience. That is, your experience comes to have a certain acquired function of carrying certain information. This is over and above the systemic function of your experience, over and above the sensory content of your experience. Though it is Harrison Ford your experience represents all along (as it turns out, that is who you are seeing) it isn't until he gets closer that your experience represents him as Harrison Ford. Your experience represents certain things about him all along, in virtue of the fact that your experience of him has a certain general function of indicating the distance, size, height, and so on of things in front of you. It isn't until he gets closer, when your background beliefs and desires that are causally connected specifically with him, that your perceptual experience comes to have the function of carrying information specifically about Harrison Ford.

Of course, your experience does carry information about Harrison Ford all along, when he is 100 feet away, as well as when he is only 20 feet away. Your experience carries this information about Harrison Ford in virtue of the fact that the features of your experience are counter-factually dependent on the properties of Harrison Ford. Your experience carries information about Harrison Ford's hair style, because your perceptual experience wouldn't have just those features unless Harrison Ford had that hair style. The point is that your experience doesn't have the function of carrying information about that particular person, about Harrison Ford, until the point at which you recognize him.

Recall, a cognitive state has the information of carrying certain information when it plays a certain role in your psychology, because of what it indicates. As mentioned in the previous chapter, the role of a cognitive state is just the causal role it plays, the kinds of effects it has in one's psychology and ultimately on one's behavior. Recall the example
about how my shaking a package of cat food came to mean food for my cat. My shaking the package of cat food makes a certain sound that causes in my cat a certain auditory state \( C \). By some kind of learning mechanism, \( C \) came to play a certain role in my cat's psychology—it came to motivate her to seek food in the kitchen. It came to play this role in my cat's psychology, because it indicates food (in the kitchen)—that is, because it is counter-factually correlated with the presence of food in the kitchen. If \( C \) had not indicated food, \( C \) would not have come to motivate my cat to dash for the kitchen.

More generally \( C \) plays a certain role in my cat's psychology, because it indicates food. It arouses her desire for food, and consequently causes her to desire to be in the kitchen. It causes her to believe that there is food in the kitchen, perhaps that the other cat might beat her to it if she doesn't hurry, and so forth. Auditory state \( C \) causes these particular beliefs and those particular desires, because of what \( C \) indicates. It is this particular sort of causal interaction with other beliefs and desires that I have in mind when I talk of the role a state plays in one's psychology.

The way in which your perceptual experience of Harrison Ford comes to represent him is obviously not in the same way my cat's auditory experience came to represent food. Recognizing Harrison Ford is not an instance of learning by reinforcement what your perceptual experience indicates, as my cat learned by reinforcement what \( C \) indicates. So I want to say something about how to extend the account of representation to the case of recognition.

The idea that your perceptual experience plays a certain role in your psychology is a relational notion. For your perceptual experience to play a certain role in your psychology is for it to causally interact with other psychological states in a certain way—ultimately to affect your behavior in a certain way, or at least affect your dispositions to behave. That a perceptual state carries certain information does not impinge on your behavior in isolation. The effect a perceptual state has on your behavior is mediated by background beliefs and desires. So we should think of a representational state as having the function of indicating something as part of a system of background beliefs and desires. What explains the role a representational state plays is explained by what it indicates, but not only by what it indicates. The effect a representational state has in your psychology is mediated by a certain system of background beliefs and desires.

Recognition involves incorporating new perceptual experience into existing systems of beliefs and desires. That is, you have some system of beliefs and desires that you previously
formed in connection with Harrison Ford, the belief that he is a famous actor, that he played Hans Solo, perhaps the desire to see movies he is in, the desire to achieve the same measure of fame and fortune as he has achieved, or whatever. Call this system of beliefs and desires $H$. Because you know what Harrison Ford looks like, there will be a certain kind of perceptual experience caused by seeing his face (or at least images of his face) that has come play a role in this system of beliefs and desires, because of what that experience indicates. For example, if Harrison Ford's image appears on the screen during a movie preview, this might cause you to want to see the movie, depending on how you feel about Harrison Ford as an actor. This kind of experience carries information about Harrison Ford, e.g., that he is in a certain movie. And such experience has come to play a certain role in your psychology, because it carries information about him. This is what confers on this kind of perceptual state the function of carrying information about Harrison Ford.

In the imagined example in which Harrison Ford is approaching in the distance, your initial experience at $t_1$ does not play this role in your psychology. It does not interact in the appropriate way with the background beliefs and desires in $H$. The desires in $H$ do not motivate your behavior with respect to the person your experience is of. The background beliefs in $H$ do not inferentially interact with the beliefs you form on the basis of your perceptual experience. If you see that the approaching person is wearing a red hat, you do not infer that Harrison Ford is wearing a red hat. And though you believe that Harrison Ford is an actor, you don’t believe that the approaching person is an actor, and so on.

So there is a certain kind of perceptual state that plays a certain role in $H$—the kind of perceptual state you are in when you recognize Harrison Ford. But your initial perceptual experience at $t_1$ does not play this role in $H$. It doesn’t play this role, because your experience is not of the right kind. Your experience does not have the features by means of which you identify Harrison Ford. You recognize the approaching figure as Harrison Ford when your experience comes to have the features by which you identify him—it comes to be experience of the right kind—and your perceptual experience thereby comes to be incorporated into $H$, into this system of beliefs and desires. Your perceptual state comes to play a certain role in your psychology, because it is experience of a certain kind and experience of this kind has carries information about Harrison Ford. It is this that confers on your perceptual experience the function of carrying information about Harrison Ford, and thus confers on your experience conceptual content that represents the approaching
There is an important contrast here with the way in which you ordinarily acquire information about the world through perception. Ordinarily, you acquire information about the world when an event causes in you a state that has the function of indicating something. You see that something is red when it produces in you a state which antecedently has the function of indicating that the object you are seeing is red. By contrast, we can think of recognition as involving a change in the function of your experience. Before you recognize Harrison Ford, your experience has a more general function of indicating the properties of the objects before you, including the approaching person. Your experience has only sensory content, or at least no conceptual content specific to Harrison Ford. Once you recognize him, the function of your perceptual experience changes; it comes to have the function of conveying information about Harrison Ford. It comes to have this function by playing a certain role in a system of beliefs, $H$, a role that is historically connected with Harrison Ford.

Note also that certain information can be conveyed only in this way—at least, given the way in which your perceptual system is organized as a representational system. There are certain possibilities that will be left open until you come to treat your perceptual experience as experience of Harrison Ford, until it comes to have conceptual content that represents the approaching person as Harrison Ford. Specifically, until you treat your perceptual experience of the approaching person as experience of Harrison Ford, the possibility is left open that there are two people in the world, Harrison Ford and the approaching person. And this possibility can only be ruled out by a change in the way your perceptual experience is treated, by a change in its conceptual content.

Certain possibilities are left open by the very structure of a representational system, and can only be ruled out by a change in the representational system. Imagine, for example, that I represent the seating arrangement at a dinner party with chess pieces. I designate chess pieces as standing for particular guests at the dinner party, and the arrangement of the chess pieces is supposed in indicate the seating arrangement of the guests. Now suppose that I introduce one chess piece for the chair of the department and another piece for Prof. Johnson. Unbeknownst to me, however, Prof. Johnson is the chair of the department. Because I have introduces these two pieces, I will systematically mis-represent the seating arrangements insofar as these two pieces will be in different positions. This leaves it open
that there were two people at the party, one Prof. Johnson and one the chair. I cannot accurately represent the number of guests at the dinner party by simply rearranging the pieces. This misrepresentation is built into the structure of my representational system. To correctly indicate the number of guests at the party, I need to change the structure of my representational system.

Your perceptual experience of the approaching person isn't quite like this. It doesn't systematically misrepresent, at least so long as you remain neutral with respect to who is approaching you, and specifically leave it open that the approaching person might be Harrison Ford. That is, your experience will only misrepresent if you treat your perceptual experience as not being of Harrison Ford. But the point is that the only way to rule out the possibility that there are two people, one Harrison Ford and one the approaching person, is for there to be a change in the significance of your perceptual experience. Your experience acquires the conceptual content that represents the approaching person as Harrison Ford.

In this respect, recognition involves a kind of ontological reduction. The information you acquire is that there is one thing in the world where you might have thought there were two. But you acquire this information through a change in the significance of your perceptual experience. It gets incorporated into a background system of beliefs and desires, such that your perceptual experience and the background beliefs and desires are treated as being of a single person.

4.6.2 Identity Claims

What I want to suggest is that identity claims work by producing the kind of change in your understanding of language that recognition produces in your visual experience, specifically a change in the significance of the states that underwrite your understanding of language. I'll talk about a change in significance, rather than a change in conceptual content, because though it involves a similar sort of psychological change, the change is not properly regarded as a change in content. I'll explain why in the course of the discussion.

Just as there is a contrast between the way in which perceptual states normally convey information, and the way in which information gets conveyed in the case of recognition, there is a similar point of contrast between the way in which we understand ordinary declarative sentences and the way in which we understand identity claims. An utterance of an ordinary declarative sentence is supposed to convey information by producing in a listener a state
which antecedently has a certain significance. By contrast, an utterance of an identity claim is supposed to convey information by producing the *significance* of states in the listener.

According to the perceptual view of understanding, you understand an utterance of a sentence when it produces in you a state that has the function of indicating something, the function of indicating what the sentence itself is supposed to indicate. You understand an utterance of the sentence ‘Alexander Haig is a Republican’, for example, when it produces in you an auditory state $HR$ which has the function of indicating that Haig is a Republican. Subsentential parts of speech have their own function, which we abstract from the function of sentence they occur in. The function of the name ‘Alexander Haig’, insofar as it figures in ordinary, non-intentional sentential contexts, can be characterized as follows: the function of sentence of the form ‘Alexander Haig $\xi$’ is to indicate something about Alexander Haig. The cognitive state $H$ that is produced by utterances of the name ‘Alexander Haig’ has the same function; it too has the function of indicating something about Alexander Haig, but again only as part of a complex state corresponding to a declarative sentence. That is, states of kind $H$ have the function of indicating something about Alexander Haig.

As I have suggested, sentences of the form ‘Alexander Haig $\xi$’ are supposed to convey certain information about Haig. They do the work of conveying this information about Haig by producing in you a state of the form $H$, by producing a state in listeners that has a corresponding function of indicating the same thing about Haig. This is the basic way in which speakers understand such sentences, the way in which acquire the information that the sentences are supposed to convey.

Identity claims are a special kind of linguistic device, and they convey information in a different way. An identity claim of the form ‘Alexander Haig is $\alpha$’ conveys information not by merely producing a state of kind $H$, but rather by changing the significance of such states. Exactly how an utterance of an identity claim is supposed to do this will take some explaining.

Recall, a representational state has the function of indicating that $p$, in virtue of the fact that its indicating $p$ explains the role it plays in cognition. This is what confers such function on the states that realize our understanding of language. Cognitive states of kind $H$ have the function of indicating something about Haig, in virtue of the fact that states of that kind play a certain role in the psychology of listeners and play that role *because* they indicate something about Haig.
To play a certain role in a listener’s psychology is to interact causally in a certain way with the listener’s other background beliefs and desires. And as in the case of recognition, there will be a certain system of beliefs and desires that state plays a role in. That is, certain desires will be brought to bear in connection with the information provided by utterances containing the name ‘Alexander Haig’ that won’t be brought to bear, or won’t be brought to bear in the same way, with respect to other sentences. The way in which your background beliefs and desires come into play when you hear that Alexander Haig is a Republican are different from the way in which they come into play if you were to hear that Al Gore is a Republican.

It is important to note that the role does not have to be the same for the function to be the same. States of kind $H$—states produced by the utterance of a sentence of form ‘Alexander Haig $\xi$’—can play very different roles in different speakers and yet have the same function. An utterance of ‘Alexander Haig is president’ might have one kind of effect on the psychology of a fellow Republican, but a very different effect on the psychology of a Democrat. It all depends on how you feel about Haig. Yet this is consistent with supposing that such states have the same function for both the Republican and the Democrat. States of kind $H$ have the same function in both speakers—the function of indicating something about Haig—because for both speakers it is the fact that states of kind $H$ carry information about Haig that explains why these states play the particular role they do. Though the roles played are different, the explanation of these roles is the same.

What is important for the account of identity is that it can also happen that cognitive states with the same function can play different roles in the psychology of a single speaker. Consider the states that are produced by indicative sentences containing ‘Hesperus’ and sentence containing ‘Phosphorus’. We can imagine speakers for whom these play different psychological roles, interacting with different background systems of beliefs and desires. The state produced by an utterance of ‘Hesperus is a planet’ might have one kind of role, cause the speaker to infer that the evening star is a planet but not that the morning star is a planet, while the state produced by an utterance of ‘Hesperus is a planet’ has another, causing the speaker to infer that the morning star is a planet, but not that the evening star is. One state might cause joy and the other sorrow, and so on.

As I have suggested, an utterance of an identity claim conveys information, not by causing a cognitive state which antecedently has a certain significance, but rather by causing
the state to have a certain significance. It does this by causing cognitive states to play a certain role in a speaker's psychology, and in particular by causing states to have the same role in the speaker's psychology. At least, this is how it is supposed to convey information, when it does what it is supposed to. For example, an utterance of 'Hesperus is Phosphorus' conveys information by causing by causing the psychological counter-parts of 'Hesperus' and 'Phosphorus' to play the same role in a speaker's psychology, to interact in the same way with the same background beliefs and desires.

To illustrate, let \( E \) be the kind state produced in a speaker by an utterance of a sentence containing the name 'Hesperus', and let \( S_E \) be the system of beliefs and desires that this state figures in. These are the background beliefs and desires that mediate the effect of the information provided by states of kind \( E \). States of kind \( E \) will have the function of conveying information about Hesperus, and it has this function in virtue of the fact that its carrying this information explains why it plays the role that it does, why it figures in \( S_E \), rather than some other system of beliefs and desires. Similarly, let \( P \) be the kind of state produced by an utterance of a sentence containing the name 'Phosphorus', and let \( S_P \) be the system of beliefs and desires that mediate the effect of the information provided by states of kind \( P \). States of kind \( P \) figure in this system of beliefs and desires, because \( P \) carries information about Phosphorus. It is in virtue of this that states of kind \( P \) have the function of carrying such information. The effect of an utterance of 'Hesperus is Phosphorus' is to change the significance of \( E \) and \( P \) such that the information they carry is mediated by a single system of beliefs and desires. The effect of this is to treat \( E \) and \( P \) as carrying information about a single object, which in fact they do. As it turns out, they both carry information about Venus.

This will involve not only \( E \) coming to be incorporated into \( S_P \) and \( P \) into \( S_E \), it will also involve incorporating \( S_E \) and \( S_P \) into one another. This may be seamless, if these beliefs are consistent and the desires not conflicting. But it may involve changing certain beliefs and desires. Or it may result in a partly inconsistent set of beliefs and desires. The point is that \( E \) and \( P \) must be governed by the same system of beliefs and desires, such that they are treated as being of a single object.

This is the same kind of change that occurs in the case of recognition, insofar as recognizing someone is a matter of incorporating your perceptual experience into a certain background system of beliefs and desires. Yet I characterize this as a change in the sig-
nificance of the state, rather than as a change in its conceptual content. The reason for this is that Dretske's notion of content is an objective notion of content. Which object a state provides information about is a matter of which object's properties the state is counter-factually dependent on. In turn, which object a state represents is a matter of which object the state provides information about that explains the role the state plays in one's psychology. So even if the states produced by 'Hesperus' and 'Phosphorus' have different roles, the object about which they provide information is the same, and thus so is the explanation of how the states came to have their respective roles. Consequently, $E$ and $P$ have the same indicative function, even though they play different psychological roles. They have the same function—the function of indicating something about Venus—because in both cases it is carrying information about Venus that explains how they came to play their respective roles.

So when $E$ and $P$ get incorporated into a single system of beliefs and desires, their roles change while their function remains the same. Nevertheless, this change in role is the very sort of change that occurs when the conceptual content of a state changes. And it is in this respect that it is like a change in content, what I am calling more broadly a change in significance.

So far I have only said how identity claims convey the information they have the function of conveying. I haven't yet said what information they have the function of conveying. As in the case of recognition, we should think of this as a devise of ontological reduction. The information a speaker acquires is that there is one thing in the world where one might have thought there were two. The cognitive upshot of an utterance of 'Hesperus is Phosphorus' is that Hesperus and Phosphorus are one, where one might have thought they were two.

But it is the way this information gets conveyed that is distinctive of the effect of recognition and identity claims. As with the example of using the chess pieces to represent different arrangements of guests at the dinner party, certain open possibilities that can only be ruled out by changing the structure of the representational system. That there might be two objects—one named 'Hesperus' and the other 'Phosphorus'—is a possibility that is left open when the states they cause in speakers are governed by different systems of beliefs and desires. To rule this possibility out, $E$ and $P$ must come to have the same role in the speaker's psychology, such that 'Hesperus' and 'Phosphorus' are treated as carrying information about a single object.
It is only by affecting this sort of structural change, a change in the significance of the states that underwrite our understanding of language, that certain possibilities can be ruled out, possibilities that are built into the very structure of language cognition as a representational system.

4.6.3 Identity and Necessity

If my account is right, then identity claims are contingent. However, it is widely thought that identity claims are necessary. What about the necessity of identity claims?

The first point to note is that there is an important asymmetry between identity claims the truth of which is known and those the truth of which is still unclear. Given that we know that Hesperus is Phosphorus, it is difficult to see how things might be otherwise. Given that Hesperus and Phosphorus are just one object, how could it be that it might have been two objects. This seems impossible, and this is what makes true identity claims seem, not just true, but necessarily true.

By contrast, consider the claim that Alexander Haig is Deep Throat. It seems that we can easily imagine how things might turn out such that Haig is Deep Throat, and we can also easily imagine how things might turn out such that Haig is not Deep Throat. We can imagine how it might turn out such that Haig and Deep throat are one person, and we can imagine how things might turn out such that they are two people. If it turns out that Haig was the source that Woodward and Bernstein relied on during the Watergate scandal, the source they gave the code name 'Deep Throat' to, then indeed Haig and Deep Throat are just one person. On the other hand, Petersen was the source, then Haig is not Deep Throat. Haig and Deep Throat are two people, not a single person.

It is a virtue of my approach that we can account for this asymmetry. On the view I have been advancing, the work an identity claim of the form α ≈ β is supposed to do is to convey the information that there is only one object where you might have thought there were two. It is supposed to rule out the possibility that there are two. But this possibility that there might be two objects is built into the structure of cognition, into the structure of the representational system. Insofar as the psychological role played by the cognitive states underwriting your understanding of α and β are governed by different systems of beliefs and desires, insofar as they have independent psychological roles, the possibility is left open that α and β might name two objects rather than a single object. And insofar as
this possibility is left open in the structure of your psychological states, the possibility that there might turn out to be two objects is easy to conceive of.

By contrast, once you come to belief \( \alpha \) is \( \beta \), \( \alpha \) and \( \beta \) come to be treated as names of a single object. The information they carry is mediated psychologically by the same system of beliefs and desires. The psychological states that underwrite your understanding of \( \alpha \) and \( \beta \) get incorporated into a single system of beliefs and desires. The possibility that these correspond to a single object gets built into the very structure of your understanding of \( \alpha \) and \( \beta \). This makes it difficult to recover the possibilities that were previously at play, that provided for the possibility that there might have been two objects. Once we know that Hesperus and Phosphorus amount to only one object, it is difficult to conceive of how it might have been two. By contrast, while it is still an open possibility that Haig and Deep Throat might be two, we have no difficulty conceiving that either they might be two or it might be one.

4.7 Conclusion

I have offered a characterization of the kind of work that identity claims are supposed to do, what information they have the function of conveying and, perhaps more importantly, the atypical way in which they are supposed to convey this information. That it is the function of identity claims to convey this information makes it constitutive of their meaning. So, by contrast with Stalnaker, I maintain that the informativeness of identity claims is a semantic phenomenon, not a pragmatic one.

However, by contrast with the Fregean approach, I have not gone in for the view that our conception of the referent of a name is part of the content of an identity claim. We might conceive of the referent of a name in very different ways, and the particular way in which we conceive of the referent of a name does not get incorporated into identity claims that employ the name.

The objective significance of an identity claim is given in reference to the expressions employed. To say that Hesperus is Phosphorus is to say that Hesperus and Phosphorus are one object rather than two—there is a single object that attaches to the names ‘Hesperus’ and ‘Phosphorus’. But in asserting this identity, I am not saying anything about ‘Hesperus’ and ‘Phosphorus’. This is the important point of contrast with the meta-linguistic view.
The information about the number of objects is conveyed not by representing the names as being co-referential. Rather, the information gets conveyed by changing the significance of the states that underlie your understanding of the names. The business of an identity claim is not to represent language, but rather to rearrange our understanding of language.


Bibliography


