What is Semantic Content?

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Introduction

Some linguistic expressions are obviously context sensitive: what the word "I" refers to depends upon who uses it; what "that" refers to often depends on what the speaker demonstrates. But some have argued that such context sensitivity is much more pervasive: for instance, it is sometimes argued that gradable adjectives such as "tall" and "flat" are context sensitive; that "knows" is; that attitude ascriptions quite generally are; that epistemic modals are; and so on. Others argue that such expressions are not context sensitive, but assessment relative. Others yet argue that (syntactically complete) sentences containing expressions like these fail to semantically express propositions. Still others deny all of these claims. There are accordingly a number of conceptions - and theories - of semantic content present in the philosophical literature.

In this paper I articulate a principled taxonomy of positions, categorizing the views of semantic content of Kent Bach (1994, Bach, 2005), Emma Borg (2004), Herman Cappelen and Ernie Lepore (2005a, Cappelen and Lepore, 2005b), Max Kolbel (2002), John MacFarlane (2005), John Perry (1986, Perry, 2001), Paul Pietroski (2003), Francois Recanati (1993, Récanati, 2004, Récanati, 2002), and Jason Stanley (2007). In doing so I identify some key choice points for those interested in answering the title question, What is semantic content? The investigation is not conclusive. Nevertheless it makes clear a number of considerations which count in favour of and against the various positions, and accordingly may serve as a kind of shoppers' guide for those in the market for a theory of semantic content.

The Taxonomy

The taxonomy of positions I provide is organized around the answers given to the following five key questions:

(1) Is there such a thing as semantic content?
(2) Is semantic content syntactically constrained?
(3) Must semantic content be truth-evaluable?
(4) How much syntax is covert?
(5) Must semantic content be propositional?

The first of these questions serves to distinguish Paul Pietroski's semantic content Nihilism from the positions of the other philosophers considered here; for he denies that semantics

yields content at all, while the others agree that there is such a thing as semantic content, but disagree regarding its nature.[1]

The second question distinguishes John Perry and Francois Recanati's Free Enrichment theories, for instance, from the views of the remaining contributors to the debate –for they suggest that semantics is not strictly constrained by syntax.

The third question differentiates Kent Bach's Propositional Radicalism from the positions of his rivals: while others maintain that semantic content must be truth-evaluable, he denies this.

The fourth question sets Jason Stanley's Indexical Contextualism apart from the views of others (and in particular those of Minimalists like Emma Borg, and Herman Cappelen and Ernie Lepore) - he holds that a lot of syntax is covert, while the others maintain that syntax is mostly overt.

The fifth question might appear to be worse than redundant, in the sense of failing to characterize any new position; it might be thought to be a mere repetition of the second. However, I employ the term "propositional" in this paper to mean *truth-evaluable relative only to a possible world*. This appearance is therefore illusory: the fifth question therefore allows us to distinguish the Relativisms of Max Kolbel and John MacFarlane from e.g. Minimalism.

The following table summarizes these considerations.

	Any such thing?	Syntactically Constrained?	Truth-evaluable?	Covert syntax?	Propositional?
Nihilism	No	n/a	n/a	n/a	n/a
Free Enrichment	Yes	No	Yes	Not much	Yes
Minimalism	Yes	Yes	Yes	Not much	Yes
Propositional Radicalism	Yes	Yes	No	Not much	No
Indexical Contextualism	Yes	Yes	Yes	Lots	Yes
Relativism	Yes	Yes	Yes	Not much	No

What grounds can be given in support of some answers to these questions over others?

First Question

Semantics is thought to be concerned, on the one hand, with linguistic meaning, and on the other, with word-world relations. The term "semantic content" reflects both of these concerns: for the expression "semantic" connects with linguistic meaning, and "content" with intentionality, i.e. word-world relations.

However, Paul Pietroski claims that "semantics is concerned with "internalist" features of linguistic expressions, rather than truth *per se*. The fact that (an utterance of) a sentence has a certain truth-condition," he continues, "is typically an *interaction effect* whose determinants include (i) intrinsic properties of the sentence that we can isolate and theorize about, and (ii) a

[1] With the possible exception of Francois Recanati – see the exegetical discussion below.

host of facts less amenable to theorizing, like facts about how "reasonable" speakers would *use* the sentence" (2003, emphasis original). Elsewhere he says, " one might think about a... monadic predicate... as (*inter alia*) an instruction for creating a monadic concept" (Pietroski, 2005) – though presumably the idea is that the *meaning* of such a predicate is such an instruction, and not the expression itself.[2] Such concepts are taken to be mental items which are not world-involving. "From this perspective," Pietroski claims, "semantics is not the study of symbol-to-world relations" (2003). This suggests that Pietroski can be characterized as a Nihilist about semantic content: he thinks there is simply no such thing.

I will not have anything to say by way of assessment of this position; but it will prove useful to have it located in our taxonomy, so that other views may be compared with it.

Second Question

Both John Perry and Francois Recanati seem to allow that semantic content can fail to be syntactically constrained. Perry, for instance, claims that when one uses the sentence "It is raining",

> the place [typically, though not invariably, that in which one utters the sentence] is an *unarticulated constituent* of the proposition expressed by the utterance. It is a constituent, because, since rain occurs at a time in a place, there is no truth-evaluable proposition unless a place is supplied. It is unarticulated because there is no morpheme that designates that place. (Perry, 2001)

So it seems Perry thinks that there are aspects of semantic content which are not the semantic values, in context, of any syntactic element of the sentence uttered – in short, semantic content is not syntactically constrained. Similarly, Recanati argues against what he calls the "linguistic direction principle", according to which a context dependent aspect of meaning is part of what is said "only if its contextual determination is triggered by the grammar, that is, if the sentence itself sets up a slot to be contextually filled." (Récanati, 1993) Apparently then, both philosophers allow the "enrichment" of semantic content in a manner that is "free" from syntactic constraint.

There is, I think, a quick argument against this view. According to one prominent account, if the semantics-pragmatics distinction is to be upheld, then it must be drawn in terms of the difference between interpreting utterances (certain speech acts), and their objects (sentences): the former kind of interpretation is pragmatic, the latter semantic. If this is right, then we can see that semantic content must be syntactically constrained. For semantic content – as opposed to pragmatic content - is the content of the sentence uttered; and sentences have syntactic features. Indeed, one might think that it is only by virtue of standing in some syntactic relation to a part of the sentence uttered that something counts as part of that sentence and not merely part of the utterance of that sentence.[3] So if semantic content is a

[2] Pietroski later suggests that "an expression of a spoken language may just be a pair of instructions for creating a sound of a certain sort and a concept of a certain sort" (Pietroski, 2005).
[3] This, of course, won't do as a reductive account of sentence-hood, invoking the notion of a sentence as it does.

feature of sentences then it is syntactically constrained; and if it is a feature of utterances then it need not be. But, given that we want to draw a distinction between semantic and pragmatic content, we can conclude that semantic content is syntactically constrained.

There are, however, three considerations which muddy the waters here: two are exegetical; the third is more substantive. Let's begin with matters of exegesis. Do Perry and Recanati hold the views that I have attributed to them?

It is quite clear, in Perry's case, that he takes utterances, not sentences, to be the bearers of semantic content (as opposed to linguistic meaning). According to Perry, "[u]tterances are intentional acts... [whereas] tokens are traces left by utterances" (2001). So it is in this sense that Perry is using these terms when he says that "[i]n some kinds of discourse tokens are epistemically basic, but utterances are always semantically basic" (2001); and it is therefore fair to regard him as maintaining that the propositions *semantically* expressed by utterances often contain unarticulated constituents.

Of course, Perry won't accept the premise of the above argument against free enrichment – the claim that semantics concerns the interpretations of sentences, while pragmatics concerns the interpretation of utterances. The result of rejecting this premise, however, is confusion, or perhaps equivocation, on Perry's part. For Perry allows that in addition to what he calls "referential content", utterances possess various kinds of "reflexive content". He sometimes speaks of the referential content as the "official" content (2001), and one way of interpreting this claim is by acknowledging that it alone is semantic content.[4] However, Perry argues against the view that semantics has rested on a mistake – namely that of assuming that it must account for the cognitive significance of (utterances of) sentences - by allowing that varieties of reflexive content can explain differences in cognitive significance between (utterances of) sentences with the same official content; yet this is only a response, rather than a concession, if such reflexive content is also semantic. Thus, the result of abandoning the above characterization of the semantics-pragmatics distinction is indecision regarding, or perhaps indeterminacy of, semantic content: better then to stick to the view that sentences have semantic content, and allow utterances to differ in their cognitive significance.[5]

There is one further complication regarding the exegesis of Perry's view. Perry claims that the example mentioned above – an utterance of the sentence "It is raining" - is a "counterexample" to a principle he calls "homomorphic representation", namely the principle that "[e]ach constituent of the proposition expressed by a statement is designated by a component of the statement" (1986). However, he later draws a distinction between an assertion's being *about* some item and its *concerning* it (1986), where – crudely – in the former case the item in question is a constituent of the content expressed, and in the latter it is part of the relevant circumstance of evaluation of the content; moreover, Perry is somewhat equivocal about which of these views he accepts. I think ultimately he does commit to the

[4] In fact, when the notion of official content is introduced it is defined in terms of "our common-sense concept of content" (2001); but it is not clear that we have such a notion, nor that if we do it ought to be used as the basis for a science of language.

[5] Bach (2007) raises similar concerns with Perry's view. Note that Perry *might* be advocating pluralism about content, or a certain sort of relativity thereof: but it is hard to tell *which* view he wants to endorse.

rejection of a syntactic constraint on semantic content; [6]but if not, then his view will constitute a version of Relativism, which will be discussed below.

The exegetical concern in Recanati's case is somewhat different. Recanati , like Perry, is certainly committed to the view that "*speech acts* [as opposed to sentences] are the primary bearers of content" (2004, italics original), and I have said that on his view semantic content is not syntactically constrained; yet Recanati speaks not of semantic content, but of "what is said" - he might therefore deny that what is said is semantic content. Indeed, Recanati speaks of "truth-conditional pragmatics" (1993), and it seems therefore likely that he will insist that *what is said* is a pragmatic notion.

It is important to have conceptual clarity at this stage. In his book *How to Do Things with Words* John Austin endeavoured to "consider from the ground up how many senses there are in which to say something *is* to do something, or *in* saying something we do something, and even *by* saying something we do something" (1975); he thereby initiated the systematic investigation of speech acts. A crude account of Austin's answer to the above question is that there are three kinds of speech act (corresponding to the different italicized expressions in the above quote). He wrote:

> [T]o say something is in the full normal sense to do something – which includes the utterance of certain noises, the utterance of certain words in a certain construction, and the utterance of them with a certain 'meaning' in the favourite philosophical sense of that word, i.e. with a certain sense and a certain reference. The act of 'saying something' in this full normal sense I call, i.e. dub, the performance of a locutionary act. (1975)

In addition to locutionary acts, Austin also recognized illocutionary acts such as stating and arguing, whose success consists in their being understood, and perlocutionary acts such as convincing, the success of which require some further effects on the audience.

This is important because, as Bach (2005) has stressed, "saying" might be construed either as a locutionary act - uttering certain words, in a certain construction, with a certain sense and reference - or as an illocutionary act - stating, or asserting. It is clear, however, that Recanati must intend what is said to be the content of a locutionary act; for he insists that we can speak of what is said by, for instance, the antecedent of a conditional (1993) – yet this is not the content of any illocutionary act. Indeed, Recanati seems to acknowledge as much when he writes:

> Grice uses 'say' in a strict sense. In that sense whatever is said must be meant. But we can easily define a broader sense for 'say':
>
> S says that *p*, in the broad sense iff he either says that *p* (in the strict sense or makes as if to say that *p* (again, in the strict sense of 'say').

[6] He says, "Could we apply this [relativist] analysis to my younger son's remark [that it is raining]? That is, could we interpret it homomorphically, taking it to express a propositional function, and say that it is true, because it concerns Palo Alto? But this would not be an accurate remark about English. Weather discourse in English does not uniformly concern the place the discussants are at." (1986) He then goes on to say some things in favour of relativism.

I will henceforth use 'say' in that broad sense. (2004)

If we take it that meaning something involves performing an action with an illocutionary force, then "say" in Grice's "strict" sense is a generic verb for an illocutionary act; this suggests that in Recanati's "broad" sense it describes a locutionary act.

One concern about this suggestion, however, is that it is not clear that locutionary acts have contents, if these are construed as language independent entities; for Austin described the locutionary act itself in detail not given in the above quote - in particular, he distinguished (a) the phonetic act, (b) the phatic act, and (c) the rhetic act as (individually necessary and jointly sufficient) elements of the locutionary act (1975). It accordingly seems reasonable to maintain that the object of the locutionary act is the interpreted sentence, whereas the object of the illocutionary act is a proposition or thought.[7] To see this, note that two people might perform the same illocutionary act though they used different sentences. By contrast, the object of the phonetic act is a string of phonemes; that of the phatic act – which might better be called a syntactic act – is a syntactic structure, including vocabulary items.[8] The object of the rhetic act, and therefore of the locutionary act, it seems, is therefore the syntactically parsed, semantically interpreted sentence.

Nevertheless, I think we can say that the content that p is the content of a given locutionary act A, if in performing that the speaker produced a sentence s, meaning - that is, not necessarily asserting, but expressing - by it that p. (Thus, just as one can perform different illocutionary acts with the same content – asserting, or demanding, for instance – so too, according to this suggestion, one can perform different locutionary acts with the same content.) So the view that what is said is the content of a locutionary act seems ultimately intelligible.

Using the above distinctions and clarifications we can now articulate the following conjectures concerning the relations between our central notions: (i) semantic content is locutionary content; and (ii) locutionary content is illocutionary content (in cases of literal speech). Given his account of locutionary saying cited above, it should be clear that Recanati endorses the second of these conjectures; the question before us now is whether he endorses the first.

On the one hand, I think we should endorse the conjecture that semantic content is locutionary content: for it is not clear to me that there is any need for two kinds of content here rather than one. Yet, on the other hand, I think Recanati should not identify semantic and locutionary content: for given his view of the latter as freely enriched, by identifying the two he would also be committed to the claim that semantic content is not syntactically constrained – and by the quick argument above this is not a conclusion we should accept.

If Recanati were to deny the hypothesis under consideration – which he may do – then it is unclear to me how he thinks of semantic content: perhaps he accepts Pietroski's Nihilism -

[7] I am here relaxing the suggestion that propositions must be evaluable only relative to a possible world: the point is that illocutionary acts have as objects certain entities which are independent of their linguistic clothing.
[8] That is, what Predelli (2005) calls a "clause" – see below.

though it seems that his "quasi-contextualism" can acknowledge the intelligibility of a notion of semantic content distinct from locutionary content (2004). Of course, Recanati will regard any such notion as picking out a gerrymandered, rather than natural kind, as he suggests it has no psychological reality in the process of communication (2004).

Nevertheless, there is some evidence that Recanati does accept the identification of semantic content with locutionary content. In a response to Jason Stanley's (2000) binding argument, which aims to establish that there are no unarticulated constituents, Recanati (2002) has suggested that there is a level of mental representation distinct from LF, or logical form, which he calls "SR" or "semantic representation". This level contains representational elements which are not triggered by the syntax of the sentence, i.e. unarticulated representational constituents. It seems that the content of this representation is the locutionary content of the utterance in response to which the SR is generated; but it also seems natural to suppose that the content of a "semantic representation" is semantic content. If so, then my characterization of Recanati's view of semantic content as involving unarticulated constituents is accurate, and the objection above applies.

Let's turn now to the substantive worry concerning the quick argument given in favour of the claim that semantic content is syntactically constrained. There are some linguists and cognitive scientists who think that it is not the noises themselves, which are produced by speakers, but rather mental representations of them that literally have syntactic structure. If so, then it will prove very difficult to determine whether any such mental representation is a representation of a sentence or of an utterance of a sentence (including, e.g. speaker intentions as a proper part). Consider, for instance, Recanti's SR discussed above: it is syntactically structured, but is it a representation of a sentence or of an utterance? An inability to decide this issue threatens to undermine the above argument, and opens up the possibility that Free Enrichment theories of semantic content such as Perry's and Recanati's are correct after all.

Before responding to this worry, let me try to spell it out in more detail. Many Chomskyan linguists have been impressed by the facts that (i) two spoken tokens of the same sentence may differ wildly from one another in terms of their acoustic properties, and (ii) syntactically important boundaries and distinctions are not marked acoustically. They have concluded that these acoustic objects – the sounds – do not have syntactic features independently of our intentional relations to them: crudely, we merely hear (and otherwise think about) them *as* syntactically structured instead.

There are perhaps two ways of filling out this suggestion. According to the first, there are mental representations with the *content* that such and such sound has such and such syntactic features – that it is comprised, for instance, of sub-sounds, one of which is a noun, another of which is a verb, and so on. According to the second, by contrast, there are mental representations whose *objects* are the sounds in question – they are representations *of* those sounds – and which *have* the syntactic features in question.

I am not sure which of these proposals is more plausible – or even if they ultimately differ. The first is perhaps more intuitive: isn't it just what is meant by the representation of a sound *as* syntactically structured? The second on the other hand has the distinctive merit that it provides an explanation of why any transformations which might occur in the representation of a sentence are sensitive to syntactic form – for this just amounts to the suggestion that they are sensitive to the form of the representation itself! But perhaps the former suggestion can be regarded as a version of the latter – after all, if there is a low level language of thought capable of representing the content that a given sound has a given syntactic structure, then will it not also be the case that there is a high level language of thought which has the syntactic features in question? For simplicity I will consider the objection under discussion from the perspective of the second of the two proposals considered here.

Suppose, then, that there is a mental representation which has a certain syntactic structure in virtue of which it is the representation of something as syntactically structured in that way. What is its object? Is it a representation of the sentence token a given speaker has produced? Or is it instead the representation of an event of which that sentence token is a mere part – the speaker's utterance itself?[9] What could possibly determine this? Without an answer to this question it seems we can't be sure that semantic content is a feature of sentences rather than utterances.

I think that although it may be empirically very difficult to provide evidence in support of one answer to this question rather than the other, there is nevertheless a difference in principle between the two answers – a difference which can be drawn out as follows.

A number of authors have taken the view that the semantic features of a concrete sentence token, or an utterance thereof, can be regarded as stemming from the semantic features of an abstract representation of the event in question.[10] Thus, David Lewis advocated this view explicitly in his (1975) "Language and Languages"; Stefano Predelli (2005) has both defended this view and attributed it to David Kaplan (1989); and Scott Soames (1984) has argued that the founder of modern semantics himself, Alfred Tarski (1956), held this view. In Predelli's terminology, an *utterance* u is *represented* by a pair <c,i> whose first member is a *clause* and whose second member is an *index*. Intuitively, the pair <c,i> stands in the representation relation to the utterance u if and only if the clause, c, encodes the syntactic features of the sentence uttered, s, and the index, i, encodes the semantically relevant features of the context of utterance. According to a slight variation of this proposal, which I prefer, it is the sentence (token) s itself which is represented by the pair <c,i> in such circumstances.

It is worth noticing, however, that for languages with a transformational grammar, there will be more than one clause, or syntactic structure encoding the relevant features of a given sentence token. Some levels of representation which have been proposed include deep structure, surface structure, and logical form. If this is right, then a sentence token will be represented by a pair, not of a clause and an index, but rather of a sequence of syntactic representations together with an index.

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[9] I assume here, following Davidson (1967), that actions (such as utterances) are just events of a certain sort.
[10] I here ignore complications arising from written sentence tokens.

Gilbert Harman (1970) has argued that logical form should be identified with deep structure. By contrast, Robert May (1985) has proposed that logical form should be regarded as a level of linguistic representation distinct from deep structure. One way of interpreting May's suggestion is to regard deep structure as a level of representation involved in the production of speech, while logical form is involved in its interpretation. Thus we have the surface structure, which serves as a representation of the product of the utterance – a certain noise – joined by an earlier member of the representing sequence, a deep structure, as well as a later structure, the logical form. A given sentence token will then be represented by a sequence-index pair just in case some mental representation of the speaker has the deep structure in question, the audience (or perhaps normal hearer) of the token has mental representations in succession, one with the surface structure and one having the syntactic structure of the logical form representation,[11] and the parametric values of the index are those determined by the context.

In this way I believe we can distinguish between a representation of a sentence having a certain structure and a representation of an utterance of that sentence having that structure. In particular, we should be able to distinguish between, on the one hand, someone who thinks, for example, *I haven't eaten breakfast today* but intends to produce the sentence "I haven't eaten breakfast", and on the other, someone who intends to produce the sentence "I haven't eaten breakfast today" but drops the word "today" when the time to pronounce it comes. The latter will involve a deep structure involving the word "today" whereas the former won't. Accordingly, there will be a distinction between two mental representations with the same syntactic features (such as, for instance, logical form) such that one of them is a representation of a sentence while the other is a representation of the utterance of that sentence. Thus, we should be able to distinguish in principle between the production of a sentence with hidden syntax and the expression of a thought by means of a sentence with less syntax than the thought itself.[12]

This dispels the worry raised against the suggestion that semantic content is a feature of sentences rather than utterances, and is accordingly syntactically constrained; but it also suggests a more general lesson - namely, that production is important to the metaphysical determination of the features, including the semantic features, of a sentence (token). We will return to this theme below.

Third Question

The third question involved in my taxonomy of views of semantic content, recall, is whether the semantic content of a sentence must be truth-evaluable.

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[11] In fact, I suspect this way of approaching the issue will ultimately involve two structures in place of surface structure – one on the production end and one on the perception end.

[12] Note that this account assumes that natural languages have transformational grammars. I am unsure how this issue will play out if it turns out that they are better described as having lexical functional grammars (Dalrymple, 2001).

One reason for taking semantic content to be non-truth-evaluable would be if it were simply the output of a modular interpretive system[13] which did not have access to the information required to generate truth-conditional content. If, in addition, pragmatics is concerned with general purpose interpretive reasoning, then it might seem that semantic content can't serve as the input to pragmatic reasoning – after all, reasons are truth-evaluable! Is this a good reason to think that the notion of semantic content can't bridge the gap between syntax and pragmatics? I don't think so. For if the semantic interpretation module yields a non-truth-evaluable semantic content m when given a sentence s, it doesn't follow that the output of semantics is not an appropriate input to general pragmatic reasoning – for the output of the semantic module might be plausibly regarded as the truth-evaluable content that s means m! This is clearly something one can entertain in one's general purpose reasoning.[14]

Nevertheless, this discussion of modularity raises the question whether semantic content is metaphysically determined by the facts of speech production or of interpretation. I argue that since interpretation is an epistemic process there is no reason to regard semantic content as metaphysically determined solely by this process. Accordingly, views according to which semantic content often fails to be truth-evaluable will seem unmotivated. Before making this case, however, it will be worth clarifying further what I will be arguing – or, more accurately, what I won't be arguing. To this end it will again be worth getting clear on a few issues.

Many (alleged) data are presented in support of various contextualist hypotheses, some of which were mentioned in the introduction; yet I think they can all be classed into three types of phenomena. First, there is the assignment of values to items which are syntactically, even if not phonetically, present in the sentence uttered. The most obvious cases are the assignment of values to indexical expressions such as "I", "he" and "that"; but also included in this class will be the assignment of values to any variables which occur without phonetic marking (if such there be). Borrowing a term (though not a concept[15]) from Recanati (2004), I call this phenomenon "saturation".

The next phenomenon is that which, following Bach (1994) I call "completion". Bach draws attention to pairs of expressions which are near synonyms, but whose syntactic properties differ. Thus, it seems "finished" and "completed" are (nearly) synonymous; yet "Al has finished" is a perfectly grammatical sentence, while "Al has completed" is not. Bach

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[13] See Borg (2004) for the suggestion that semantic interpretation is modular.

[14] Endorsing this response to the present concern, however, may involve the rejection of the second of the two versions of the view that sounds are only represented as having syntactic structure; in particular, it seems to require that one have a mental representation whose content is *that* a certain sentence has a certain syntactic structure and a certain meaning.

[15] Recanati's account of saturation is related to, but different from, the one proposed here. He says, "Saturation is the process whereby the meaning of a sentence is completed and made propositional through the contextual assignment of semantic values to the constituents of the sentence whose interpretation is context-dependent" (2004). This account assumes that the next phenomenon I will discuss (completion) is to count as saturation. Moreover, Recanati's preferred account of this latter phenomenon seems to involve the interpretation of the overt expression – say, "noticed" – by an *ad hoc* concept, such as – in our example - *noticed that he is playing the Piano*. This does not involve the assignment of a value to an indexical expression or variable, so doesn't count as saturation on my account.

concludes that, although it is syntactically unexceptionable, the sentence "Al has finished" stands in need of semantic completion.

Finally, there is the phenomenon that Bach (1994) calls "expansion": this is when semantic material is added to a sentence which is already semantically complete, in the sense that it is already truth-evaluable. Thus, for instance, Bach suggests that a speaker might use "I've eaten breakfast" to mean that he or she has eaten breakfast on the day in question; yet the sentence can be literally used to mean that the speaker has eaten breakfast at some time in the past – a claim which can itself be evaluated as true or false.

Note that although completion and expansion are defined to be mutually exclusive, it is an open question whether these phenomena are also cases of saturation – Stanley (2007), for instance, argues that they are. Moreover, there is room for disagreement over how to classify specific cases: if someone utters "He is tall", meaning that he is tall for a 12 year old boy, is this a case of completion or expansion? The answer will depend upon whether it is possible for someone to be tall *simpliciter*.

Now, Bach gives two kinds of argument in favour of his propositional radicalism. The first concerns completion phenomena. The thought is that if someone says, "Al has finished" or "Tipper is ready" then one needs to know what Al is alleged to have finished doing, or what Tipper is claimed to be ready to do, if one is to be able, even in principle, to assign a truth-value to the sentence uttered. I will not be concerned with such reasons for abandoning truth-evaluability here.[16]

Bach's second reason for denying that sentences uttered have truth evaluable semantic contents derives from considerations surrounding saturation, and in particular the thought that the assignment of referents to certain context-sensitive expressions such as demonstratives is not a semantic matter. Since truth depends on reference, this gives us grounds for thinking that truth conditions are not a feature of semantic contents. Bach claims that "[d]emonstratives and most indexicals do not refer as a function of context" (2005); unlike the pure indexicals "I" and "today", he says, "they suffer from a character deficiency" (2005). He writes, "The communicative context (context broadly construed) enables the audience to determine (in the sense of ascertain) what [the speaker] is referring to [when using such expressions], but it does not literally determine (in the sense of constitute) the reference" (2005). The idea then, is that a token of a sentence such as "He is happy" or "That is red" does not have a truth-evaluable semantic content, since the context in which it is uttered merely helps the speaker to correctly identify who is claimed to be happy, or what is said to be red; it does not, together with the linguistic meaning of the impure indexical in question, fix this as a matter of fact. I find this claim implausible; and it is this reason for denying truth-evaluability which I wish to dispute.

All indexicals, I claim, pure or impure, must be grouped together. So if there are considerations, perhaps due to modularity, which tell against counting the reference of an

[16] I suspect the correct treatment of these cases depends upon issues of syntax; however, one might hope to assimilate these cases to that of e.g. gradable adjectives discussed below.

impure indexical as semantically determined, then they tell equally against counting the reference of a pure indexical as so determined. Fortunately such considerations are not compelling, and we can therefore count the reference of overt expressions as semantically determined.

I spoke earlier of a modification of Predelli's (2005) suggestion, according to which we can regard sentence tokens as represented by abstract pairs, the second member of which is an index – that is, an n-tuple of parameters determined by features of the context of utterance of the sentence. Now, if we think of the context itself as the situation in which the sentence token is produced, then it seems clear that *this* suffices to determine the reference of any given indexical, whether pure or impure – for the referents of such expressions are determined by the linguistic meaning of the expression along with the speaker's intentions – both of which are aspects of the situation which is the context. But then, why should there not be a parameter of the *index* which encodes this fact? That is, why should the index not include, as one of its members, the relevant demonstratum? Yet if the index – Bach's "narrow context" – includes a demonstratum parameter (or a sequence thereof, to deal with cases in which multiple demonstratives are used) then demonstratives and other impure indexicals are no different from pure indexicals: both have a reference relative to an index.

One might be concerned that the semantic module of the mind will have no access to information concerning who or what is referred to by a given impure indexical. For clearly, general epistemic resources of the hearer will be called into play in order to ascertain which object is demonstrated when a given speaker uses the word "that". But then, the argument goes, if semantic content is the result of modular processing alone, the reference of such a word cannot be one of its semantic features.

This argument has its merits. But I think it proves too much – certainly too much for Bach's purposes. For just as it is clear that general epistemic resources are required on a hearer's part to ascertain what object is demonstrated when a speaker uses the word "that", so too general epistemic resources are required to ascertain who the speaker is. Clearly the semantic module doesn't do that! (Imagine a lost postcard case: a reader whose semantic module is perfectly intact can't figure out who sent it - nor, therefore, can such a hearer ascertain who the referent of a token of "I" occurring on it is.) If these considerations are correct, then if semantic content is metaphysically determined solely by the modular process of interpretation, the semantic content of a token of "I" cannot be the person who produced it. That is, the semantic content of a token of "I am F" produced by *a* cannot be the externalist content that *a is F*; rather, it must be the internalist content that *the speaker is F*.[17] Bach's propositional radicalism is unstable – considerations which support it lead to semantic internalism, and the concomitant Pietroskian semantic content Nihilism.

We can, however, avoid semantic internalism and content Nihilism by denying that semantic properties are metaphysically determined by the process of interpretation alone. It is a perfectly objective fact that a given speaker used a given token of "I" – and it is this which

[17] Here "the speaker" is used attributively.

determines (metaphysically) that that token of "I" refers to that person. A fact such as this is semantic – even if some non-linguistic cognitive resources must be deployed if one is to come to know it. Sometimes one must know some non-semantic facts in order to ascertain the semantic facts. But this applies equally to pure and impure indexicals: for it is an objective fact that a given speaker intended to refer to a certain object o when using the demonstrative "that", even if it is one which requires general epistemic resources to recognize. In this way we can resist semantic internalism and content Nihilism; but on this basis we can equally rule out Propositional Radicalism – unless, of course, there are reasons to endorse it due to completion phenomena.[18]

Fourth and Fifth Questions

I take the fourth question – the question of how much covert syntax there is - to be largely empirical; which is not to say that it isn't theoretical! But without strong evidential backing and thorough consideration of the intricacies of syntactic theory it will prove hard to determine which answer to this question is correct. So I will not engage in this debate directly.

Nevertheless, it might be thought that the issue which divides Indexical Contextualists from Minimalists could be approached via the fifth question. For the Indexical Contextualist might argue that sentences without much covert syntax would not have propositional content – they would not be evaluable only relative to a possible world. If so, then if semantic content must be propositional (as both the Indexical Contextualist and the Minimalist agree it must), this would count against the Minimalist.

I argue, however, that without an account of what possible worlds are it will prove difficult to make the charge of non-propositionality stick. Moreover, it will be hard to see why non-propositional contents shouldn't be truth-evaluable.

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[18] Borg (2004: chapter 3) takes a slightly different approach. On her view, semantic features are determined by the process of interpretation, but this process is not epistemically constrained. Thus, when we hear a sentence containing an indexical, we construct a mental representation, or singular concept, whose denotation is the relevant item. (This process, Borg claims, is modular.) The resulting mental representation is directly referential, but nevertheless has a character, which helps the hearer (using non-modular processes) to integrate the singular concept with other mental representations, thereby rendering it useful to the hearer at the personal level. Accordingly, the contents of expressions like "I" or "that" are external-world objects, though at a personal level the hearer may not be in a position to identify the objects in question.
Borg's view is, I think, an intelligible one without obvious flaws; though it is one which is subject to empirical fortunes. For instance, it can be compared to one which, inspired by Pietroski's semantic internalism, regards the interpretation process as involving instructions to construct concepts. When one hears an indexical expression, on this view one forms the (sub-personal) intention to construct a singular concept, in accordance with certain rules for integration with further information provided by the character of the expression. The view differs from Borg's in that, while on Borg's view one interprets an expression e if one successfully constructs a singular concept α which one may then integrate with, say, a perceptual singular concept A in accordance with the character of the expression e whose interpretation generates α, on this alternative account one interprets e by following the instruction to generate a singular concept in accordance with the character of e. One may fail to do this if one cannot, say, form a perceptual concept associated in the appropriate way with the expression. Basically, the interpretation of e is successful if A is generated, not if α is (though "understanding" might be said to occur anyway). This alternative approach appears to have less commitment vis-a-vis the language of thought hypothesis than does Borg's (it requires just one singular concept, where Borg's requires two); though I confess I don't know what empirical evidence would decide the issue from an epistemological point of view.

Consider the case of a word like "tall" – though something similar could be said about other controversial terms such as "empty", "flat", "knows", "might", "right", "delicious", "beautiful" or even "true". According to some the word "tall" is context sensitive. Thus, they claim, we might say truly of a man who is 6'2", "He is tall", if we have in mind to compare him to the population of men at large; but we might say truly "He is not tall" if we are concerned with how effective a volleyball player he will be for his national team. Thus, the truth conditions of any given token of "He is tall" are not that the indicated person is tall *simpliciter*, but rather that the indicated individual is tall *relative to R*, where R is some comparison class – say, men in general, or male volleyball players in international competition.

Minimalists Cappelen and Lepore (2005a, Cappelen and Lepore, 2005b) respond to the charge that the truth conditions of "He is tall" can't be simply that the indicated individual is tall *simpliciter* since it is unclear what it is to be tall *simpliciter*. They argue that a semantic theory needn't provide an analysis of each word in the language; so they don't need to say what it is to be tall *simpliciter*.

I think the Cappelen and Lepore response can be made plausible as follows. A token of "He is tall" is true at a possible world w, they claim, just in case the indicated individual is tall at w. But what is a possible world? Few of us are willing to countenance non-actual Lewisian possible worlds – mereologically maximal concrete objects which stand in no spatio-temporal relation to us (Lewis, 2001). But if we think of worlds instead as something like maximally consistent sets of propositions – or perhaps sets of interpreted sentences - then there is no reason why we should not allow that "He is tall" is true relative to a world w just in case w contains a proposition or sentence to the effect that the indicated individual is tall. If this is right, then minimal semantic contents are propositional after all.

Perhaps someone will object that my proposal is really relativist in character, not minimalist. Relativism is the view that semantic content must be evaluated relative to a parameter beyond just a possible world[19] – in the case under consideration, a comparison class must also be included in the circumstance of evaluation; perhaps to deal with other cases the relativist would add other parameters as well. But I am simply building the comparison class into the possible world; that is, the objector contends, I am saying that a sentence is true relative to a world and a comparison class – but that my worlds implicitly contain comparison classes. Thus the semantic contents I envision are not Minimal propositions – for they are not propositions at all.

My response is that this thought is basically correct – though it is expressed in contentious language. The point I wish to stress is that all parties effectively agree that a token of "He is tall" is true only relative to a comparison class – but they insist that the comparison class enters into the determination of a truth value in a different way. Yet I can see no semantically

[19] This is how Max Kolbel (2002) characterizes the view; and although John MacFarlane (2005) does not give this account of what relativism consists in, preferring to characterize a semantics as relativist only if it relativizes sentence truth to a context of assessment as well as a context of utterance, his view is ultimately covered by the account given in the main text – see Cappelen and Hawthorne (2009: chapter 1) and my (forthcoming).

tractable difference between the three proposals.[20] There is, of course, a syntactic difference – the Indexical Contextualist maintains that the sentence under discussion contains covert syntax. Recall, however, that we were hoping to find independent semantic evidence which would suggest that we ought to pursue the Indexical Contextualist's hypothesis. My suggestion is that there isn't any evidence of this kind – if we are to make the case for Indexical Contextualism as opposed to Minimalism or Relativism, we will have to do so on purely syntactic grounds.

Conclusion

If these considerations are correct, Indexical Contextualism, Minimalism, and Relativism are left as live options concerning the nature of semantic content. What will decide between them is an independent syntactic investigation which I have not been willing to undertake here. But some progress has been made – Free Enrichment theories of semantic content have been ruled out; and it has been argued that if there are no successful arguments from completion phenomena in support of Propositional Radicalism, then the view collapses to an internalist, semantic content Nihilism.[21]

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[20] On Predelli's (2005) account, clause-index pairs are assigned t-distributions, which are assignments of truth-values at "points" of evaluation. This leaves room for a range of possibilities concerning the nature of those points. My argument here is effectively exploiting this indeterminacy.

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