Dissatisfaction Theory

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Abstract

I propose a new theory of semantic presupposition which I argue solves a number of serious open problems for satisfaction theory. Rather than saying that presuppositions are constraints on input contexts which must be locally entailed, as on satisfaction theory, we say that presuppositions are not-at-issue contents which project unless they are locally entailed. I argue that this reconceptualization of what kind of content semantic presuppositions are, and how they project, solves a variety of longstanding problems for the theory of presupposition.

1 Overview

I propose a new theory of semantic presupposition ('SP') which solves a number of serious open problems for satisfaction theory ('ST'), a leading theory of SP.

2 Satisfaction Theory

ST[1] has two planks (c is any *context* of any conversation, i.e. the set of worlds compatible with the *speaker presuppositions* of the conversants at some time):

(1)   STALNAKER'S BRIDGE: An assertion of p can only update c if c entails p's SPs.

(2)   PROJECTION IN ST: A complex sentence p SPs r iff r is entailed by every context p can update. p can only update c if, for every proper part q of p, all of q's SPs are entailed by q's *local context* in c.

3 Conditionals

ST's predictions about SPs in conditionals and attitude predicates are widely recognized not to match observed *speaker* presuppositions. I argue both cases are more problematic than is widely accepted. First, ST predicts 'If p then q_r' SPs 'p $\supset$ r', e.g.

(3)   'If Theo hates sonnets, so does his wife.' SPs 'Theo hates sonnets $\supset$ Theo has a wife.'

But a speaker of 'If p then q_r' is typically felt to presuppose not just $p \supset r$ but also r: in this case, not just 'Theo has a wife if he hates sonnets' but also 'Theo has a wife'.[2] Defenders of ST have proposed a pragmatic response to this problem, according to which ST makes the right predictions

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[1]Stalnaker [32, 34, 33], Karttunen [16, 17], Heim [10, 11, 12, 13], Beaver [2], von Fintel [5], a.o. Controversy about local contexts (e.g. Schlenker [26], Rothschild [23]) is orthogonal to my concerns, so I assume Heim's predictions for simplicity, except as noted. The problems I sketch here are also problems for almost every other theory of SPs; I focus on ST because of its prominence and because my theory is closely related to it. DRT approaches avoid both the problems I discuss (see e.g. van der Sandt [24, 25], Geurts [9], Maier [19]); but DRT faces other, equally serious problems (see e.g. Beaver [2]).

[2]See Geurts [7]; this so-called 'Proviso problem' was recognized as early as Karttunen and Peters [18]; parallel problems arise for con/disjunction, as well as in many competitor theories, in particular trivalent theories. Subscripts denote atomic SPs and '$\supset$' the material conditional (which I approximate 'if-then').

about *semantic* presupposition, but for pragmatic reasons, interlocutors often (but optionally) take the *speaker* to be presupposing the relevant unconditional.[3] But I argue this response cannot make sense of the fact that conditional SPs get strengthened to unconditionals *even when there is strong pragmatic pressure not to do so.* Consider:

(4)   [A:] How's Jo's health? [B:] I don't know; he has diabetes or MS, I don't know which. But if he restricts his sugar intake at dinner tonight, then his diabetes is under control.

B is here taken to have committed herself to the proposition that Jo has diabetes, not just that Jo has diabetes if he restricts his sugar intake; this explains the incoherence of (4). But if conditionals had conditional SPs which are *optionally* strengthened through *pragmatic* reasoning, that strengthening should be blocked in the present case due to considerations of charity. Since it is not, ST plus a pragmatic strengthening story looks inadequate.

4   Attitudes

Second, ST predicts that 'S believes/wants p_r' SPs 'S believes r', e.g.:

(5)   'Jo believes that his uncle will visit.' SPs 'Jo believes he has an uncle.'

But a speaker of 'S believes p_r' or 'S wants p_r' is typically felt to also presuppose r: in this case, not just that Jo *believes* he has an uncle, but also *that he has an uncle.*[4] Defenders of ST have proposed a pragmatic strengthening account here, too, according to which we tend to defer to a belief if it is *presupposed* (rather than asserted) that someone holds it. But, just as in the case of conditionals, I argue this approach fails a test in which we create pragmatic pressure against this kind of deference, as in:

(6)   Bernhard doesn't know anything about Bugandan politics. For instance, he thinks that Buganda's king answers to its parliament!

A speaker of (6) typically will be felt to presuppose that Buganda has a king and a parliament, even though she disavows Bernhard's beliefs as far as Bugandan politics goes. It thus looks like ST plus a pragmatic strengthening account is inadequate here, as for conditionals.

5   Dissatisfaction Theory

I propose a new approach to SPs, which avoids both of the problems just sketched. I call my approach 'dissatisfaction theory' ('DT'). DT replaces the two central planks of ST as follows. In place of STALNAKER'S BRIDGE we have:

(7)   SIDE ENTAILMENTS: SPs are side entailments, not preconditions on input contexts.

Thus an assertion of p_r can be felicitous in a context which does not entail r. As side (or 'not-at-issue') entailments, SPs are distinguished from main content as follows. Like conventional implicatures—e.g. appositives and NRRs (cf. e.g. Potts [22], AnderBois et al. [1], Murray [21])—they are harder to target with propositional anaphors and discourse particles than main content, and typically infelicitous if they answer a question under discussion (though in contrast to conventional implicatures, the information they convey need not be novel).

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[3]Beaver [2], Heim [15], Singh [29, 30], von Fintel [5], Carballo [3], Schlenker [27], a.o.
[4]See Karttunen [16, 17], Heim [13], Geurts [8], and Heim [13], Sudo [35], for responses.

Next, I propose, in place of PROJECTION IN ST, this composition rule for SPs:

(8)   DT PROJECTION (1ST PASS): A complex sentence p SPs r at context c iff r is SPed by a proper part q of p, and r is not entailed by q's local context in c.

DT bears an obvious similarity to ST. But while *satisfaction* theory sees SPs as *constraints* that demand to be *satisfied* (i.e. entailed) by local contexts, *dissatisfaction* theory sees SPs as content that is always passed up the composition process *unless* it is locally satisfied.

6   Conditionals

This difference in perspective is crucial. DT avoids the two problems raised above. First, we predict 'If p then q_r' SPs r, unless p contextually entails r, in which case it SPs nothing. We thus accommodate intuitions that drive ST, since e.g. we predict

(9)   If Theo has a wife, then his wife likes sonnets.

SPs nothing. But we also accommodate the intuitions that made trouble for ST, since we predict that e.g. the sentence in (3) SPs that Theo has a wife (unless it's contextually entailed that Theo has a wife if he likes sonnets); likewise, *mutatis mutandis*, for (4)[B], and for con/disjunctions. These predictions let us avoid the problems discussed above, given SIDE ENTAILMENTS; had we retained STALNAKER'S BRIDGE, speakers would still be predicted to have a choice between conditional and unconditional interpretations, a choice (4) suggests does not generally exist. (Though it *sometimes* does. I argue such cases can be explained pragmatically: we can take a speaker to be committed to an inexplicit conditional if it is a 'default' (e.g. that monarchs are male), if this lets us avoid attributing incoherence to her.)

7   Attitudes

Second, if we adopt a Kratzer semantics for 'believes' and 'wants', with a doxastic modal base for the latter—so the local context for 'S wants' in c is S's buletic worlds (as viewed in c), which are a subset of the the local context for 'S believes', which is S's doxastic worlds (as viewed in c)—we predict 'S believes/wants p_r' SPs r, unless the context entails 'S believes r', in which case it SPs nothing. So DT predicts in a null context

(10)   'Jo believes that his uncle will visit.' SPs 'Jo has an uncle.'

(whereas ST predicts it SPs only that Jo *believes* he has an uncle). But DT *also* accommodates intuitions that drive ST, since, like ST, DT also rightly predicts that 'S believes r, and S believes p_r' SPs nothing. DT thus solves the two problems we began with, while preserving much of what is attractive about ST. It also improves on the predictions of ST w.r.t. other cases of SPs under attitudes. First, DT rightly predicts not only that believe-believe sequences, but also want-want sequences, SP nothing. By contrast, ST predicts that 'S wants r and S wants p_r' SPs 'S wants r $\supset$ S believes r.' That this is wrong is shown in

(11)   Sue wants it to have rained, and wants it to have stopped raining.

which ST wrongly predicts to SP 'if Sue wants it to have rained, then she believes it was raining.'[5] By contrast, DT rightly predicts that sequences like (11) SP nothing. But we still capture ST's

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[5]Defenders of ST propose to treat these as cases of modal subordination, e.g. Heim [13], Sudo [35].

correct prediction that sequences with the form 'S believes r and wants p_r', e.g.

(12)   Jo believes it is raining and wants it to stop.

SP nothing. Finally, DT predicts that sequences of the form 'r, and S believes p_r' SP nothing. That this is right can be seen in examples like (13):

(13)   If someone left and Paul believes it was Jim who left, then he'll be furious; but if someone left and Paul doesn't find out, he'll stay calm.

ST predicts (13) SPs 'If someone left, then Paul believes someone left', and thus that (13) is incoherent. By contrast, DT predicts (13) SPs nothing, which is much more plausible.

8   Further Questions

This leaves a number of questions open about DT. First, how do we predict that 'S believes/wants p_r' SPs 'S believes r' (a prediction which follows naturally from ST)? Geurts [8] suggests a pragmatic derivation, but I propose rather to posit appropriate SPs for attitude predicates (extending an approach in Heim [14], Gajewski [6]); thus, e.g., 'believes p' and 'wants p' will both SP 'believes (p or ¬p)', which entails the SPs in question (this may look *ad hoc*, but is no more *ad hoc* than positing lexical SPs for factives, definites, etc.).

Second, we must generalize DT to account for projection through quantifiers. For any sentences or predicates s, q, with s SPed by q, let $\hat{s}$=s iff s is a sentence, else $\hat{s} = \forall x : (x \in \mathcal{D} \to \text{s}(x))$, with $\mathcal{D}$ the domain of the quantifier immediately embedding q. Then refine DT:

(14)   DT PROJECTION REFINED: A complex sentence p SPs $\hat{r}$ at a context c iff r is SPed by a proper part q of p and r is not entailed by the local context for q in c.

The resulting predictions for quantification match those of ST, with the important improvement that we solve quantificational parallels to the problems discussed above. This is, though, only a tentative success, since the correctness of these predictions is controversial.[6]

Third: we should ask whether we lose something by abandoning STALNAKER'S BRIDGE. Many have followed Soames [31], von Fintel [5] in thinking that it cannot be derived from more general principles. The empirical picture is less clear.[7] It looks like there is some evidence for STALNAKER'S BRIDGE for *some* presupposition triggers, in particular those that include anaphora resolution of some kind (pronouns, 'too', etc.); but not for triggers like factives, clefts, change-of-state verbs, etc. I hypothesize that once we distinguish anaphora resolution carefully from genuine SP, we no longer have direct empirical evidence for STALNAKER'S BRIDGE. STALNAKER'S BRIDGE does explain something that must for now remain stipulated in DT, namely the fact that SPs may be old or new, whereas other side content, like conventional implicatures, must be new—though it may well be possible to explain this contrast from other, more general principles. In any case, DT looks well worth exploring given its improvements over ST (as well as many of ST's competitors).

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[6]See e.g. Mayr and Sauerland [20] for a recent defense; Chemla [4], Zehr et al. [37] for experiment work.

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