## Antipresuppositions in Counterfactuals

Antipresuppositions are implicatures derived from the presuppositions of a sentence and the presuppositions of its unasserted competitors rather than from the asserted propositional content of a sentence and the contents of its unasserted competitors. Antipresuppositions can explain the implicature associable with sentences like (1):

- (1) John believes that I have a sister (*Implicature: the speaker does not have a sister*)
- (2) Competitor: John knows that I have a sister (Chemla 2008)

The derivation of this implicature has been carefully investigated, a.o., in (Schlenker 2006), (Sauerland 2008), and (Chemla 2008). I adopt Chemla's account and show how it explains the implicature of antecedent falsity in counterfactuals.

Counterfactuals like (3) typically bear communicate that their antecedents are false.<sup>1</sup>

(3) If you hadn't eaten all the chips, you wouldn't be so thirsty.

It is widely accepted that this is neither part of the semantic content nor a presupposition of counterfactuals (for example, (Stalnaker 1975), (Anderson 1951)). The message has been taken to be a cancellable implicature. While this has been treated as a constraint on an adequate semantics, few efforts have been made to derive the implicature.

Two exceptions are (Iatridou 2000) and (Ippolito 2003). Ippolito's proposal is our point of departure. She develops a system whereon the presuppositions of the antecedents of counterfactual conditionals are systematically weaker than the presuppositions of the antecedents of various available alternative constructions; given Heim's (1991) Gricean injunction, "Maximize Presupposition," this generates the implicature that the presuppositions of the antecedent of the stronger alternative are not satisfied. This approach has two flaws: first, it derives the implicature of antecedent presupposition failure, not strict falsity; second, as Ippolito notes, it has no developed account of the implicature of antecedent falsity in counterfactuals that lack presupposition triggers. While Ippolito's use of 'Maximize Presupposition!' to generate the implicature is promising, the implicature is better derived by appeal to global presuppositions of various conditional constructions.

First let me sketch Chemla's account of antipresupposition. According to Heim's maxim, (1) should not be uttered if (2) is felicitous. From the utterance of (1), the hearer will infer that it is not the case that the speaker believes that (2) is felicitous. On Chemla's account, this means that at least one of the following must be true:

- 1. it is not the case that the speaker believes that she has a sister ( $\sim B_s(p)$ );
- 2. it is not the case that the speaker believes she is an authority about whether she has a sister ( $\sim B_s(Auth_s(p))$ );

So an utterance of (1) will cause the hearer to infer that either  $\sim B_s(p) \vee \sim B_s(Auth_s(p))$ . The desired implicature—that the speaker believes that her mother does not have a unique sister  $(B_s(\sim p))$ —follows if the hearer makes two assumptions. The first is that the speaker is opinionated about the matters at hand:  $B_s(p) \vee B_s(\sim p)$ . The second is that the speaker takes herself to be an authority about the matters at hand:  $B_s(Auth_s(p))$ .

Deriving antecedent falsity as a antipresupposition imposes two requirements on the presuppositions of conditionals. First, the presuppositions of conditionals must constitute a lexical scale: where an indicative and its counterfactual counterpart have the same truth conditions, their presuppositions must be asymmetrically ordered by logical strength.

<sup>&</sup>lt;sup>1</sup>For this abstract I use the terms 'counterfactual' and 'subjunctive' interchangably.

And since the implicature arises from use of the counterfactual rather than its indicative alternative, the presuppositions of the counterfactual must be logically weaker.

(von Fintel 1997) discusses several accounts of the presuppositions of conditionals, settles on an account very close to that offered in (Stalnaker 1975), and provides several tests that any account of the presuppositions of conditionals must solve. I too will argue for an account of the presuppositions of conditionals that is very close to Stalnaker's. I will argue that indicative conditionals presuppose that their antecedents are contextually possible (consistent with the common ground). Counterfactuals have no presupposition. This account is shown to be plausibly close to Stalnaker's own claims and to pass the tests that von Fintel provides. Furthermore, it straightforwardly yields the desired implicature.

Since the presuppositions of indicative and counterfactual conditionals are asymmetrically ordered by logical strength, then if a speaker uses the weaker member of such a pair, there will be an implicature that the stronger member is infelicitous.

- (4) If they had raised the blinds they'd have seen daylight.  $(A \square \rightarrow B)$
- (5) If they raised the blinds they saw daylight.( $A \rightarrow B$ )

An utterance of a counterfactual  $A \square \to B$  where the indicative  $A \to B$  is a salient alternative could, given  $Maximize\ Presupposition$ , generate in the hearer a belief that the speaker doesn't believe that the felicity conditions for the stronger indicative are satisfied:  $\sim B_s[C[A \to B]]$ . Given Chemla's analysis of antipresuppositions and my account of the presuppositions of conditionals, this entails that  $\sim B_s[\diamond A] \lor \sim B_s[Auth[\diamond A]]$ . If hearers make the authority assumption—they assume that the speaker believes that the hearers are willing to take the speaker as an authority—then the second disjunct can be eliminated, leaving us with  $\sim B_s[\diamond A]$ . If hearers make the competence assumption—that  $B_s[\diamond A] \lor B_s[\sim \diamond A]$ —it follows that  $B_s[\sim \diamond A]$ . The assumption that the speaker is reliable will then give us  $\sim \diamond A$ . If the diamond is interpreted as contextual possibility, that amounts to ruling A-worlds out of the common ground, which is the desired result.

## References

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