Presupposition and Selectional Restrictions

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McCawley [7] proposes the idea that selectional restrictions should be treated presuppositionally. I provide support for the proposal using well-known tests for presupposition.

1 Presupposition and Entailment

Consider the following two sentences:

1. John has a German Shepherd.

2. John's dog likes to play.

We can conclude (3) from both (1) and (2):

3. John has a dog.

We sense that the source of the inference is different in the two cases. Intuitively, it is as if (3) "follows" from (1), in some sense, whereas it seems to be "taken for granted" in (2). More pedantically, we would say that (1) *entails* (3), whereas (2) *presupposes* it. We have in place several diagnostics for teasing apart standard entailments from presuppositions. These diagnostics substantiate our pre-theoretical intuitions. I go through some here.

1.1 Presupposition Projection

A well-known property of presuppositions is that they tend to project out of embedded contexts.[1] For instance, if ϕ presupposes X, then so do (eg.) "if ϕ, then ψ" and "not ϕ". However, if ϕ entails X, then X does not (necessarily) follow from "if ϕ, then ψ" and "not ϕ." Indeed, when we apply this diagnostic to (1) and (2), we find that (3) follows when we embed (2) under negation/in the antecedent of a conditional, but not when we embed (1) in these environments:

4. John doesn't have a German Shepherd.

[1] For comprehensive overviews of presupposition projection, see (eg.) Soames [8], Heim [5], Beaver [1].

5. If John has a German Shepherd, then I might consider inviting him to the party.

6. John's dog doesn't like to play.

7. If John's dog likes to play, then I might consider inviting him to the party.

1.2 The Hey Wait a Minute! Test

Kai von Fintel [4] develops a test which teases apart presupposition from assertion. In response to the speaker's utterance of ϕ, the hearer can respond *Hey wait a minute! I didn't know X!* if and only if ϕ presupposes X. Thus, in the context of our examples, the hearer should be able to object *Hey wait a minute! I didn't know John has a dog!* in response to (2), (6), and (7), but not in response to (1), (4), and (5). This prediction seems be correct, eg:

8. S: John doesn't have a German Shepherd.
   H: # Hey wait a minute! I didn't know John has a dog!

9. S: John's dog doesn't like to play.
   H: Hey wait a minute! I didn't know John has a dog.

1.3 Explicit Ignorance

von Fintel [3] provides the following test for presupposition. It is odd to explicitly assert ignorance about X and then go on to presuppose X in the next sentence. Thus, if one states ignorance about John having a dog, it should be odd to follow up with (eg.) (7), but not with (eg.) (5). This prediction seems to be correct:

10. I don't know whether John has a dog or not, but if he has a German Shepherd, I'll invite him to the party.

11. #I don't know whether John has a dog or not, but if his dog like to play, I'll invite him to the party.

2 Selectional Restrictions

Consider the following sentence:

12. Dr. Seth is a bachelor.

13. # The woman is a bachelor.

It follows from (12) that Dr. Seth is an adult, is unmarried, and is male. The fact that these pieces of information are intricately connected to the word *bachelor* prevents one from applying the predicate to Mary. Beginning with Chomsky [2], we've had a way to capture such data. The syntactic information

carried by lexical items will include selectional restrictions, such as that the predicate *bachelor* can only take adult, male, unmarried humans as arguments. McCawley [7] suggests that selectional restrictions be thought of as presuppositional.[2] Thus, in the case of a predicate like *bachelor*, the question arises: what is presupposed and what is asserted? Ignoring the "adult" and "human" component to the restriction, McCawley proposes that a sentence like (12) presupposes that Dr. Seth is male, and asserts that Dr. Seth is unmarried. Thus, the lexical entry he has in mind for *bachelor* is:[3]

Lexical Entry for *bachelor* $[[bachelor]] = \lambda x : x$ is male. x is unmarried

The oddness of (13) will then derive from presupposition failure. Unlike other cases of presupposition failure, there seems to be no possible way to repair the failure, or accommodate, in the sense of adding informaiton to the common ground to make it satisfy the presupposition. Thus, the failure seems more like:

14. #Every childless man loves his son.

In any event, McCawley argues for this entry based on the observation[4] that one can apply the predicate to someone known to be male in order to inform the hearer that the person is unmarried, but one cannot apply the predicate to someone who is known to be unmarried to inform them that the person is male.

The argument does not go through, however. First, it is not hard to imagine scenarios where one can make such a predication. Imagine an online singles-only chat room. Scrolling through the list of people in the chat room, one finds the following personal ad:

14. Bachelor out of New York City, new to Boston, looking to meet friendly people.

This sentence does indeed inform us that the person is male.

Nonetheless, even if the asymmetry in predication possibilities were true, it is not clear what the observation would show us. For instance, it might well be that being male and being unmarried are both presuppositional components of the meaning of *bachelor*, with one component being easier to accommodate than the other. We should like better tests for the proposal.

McCawley was of course writing before we had substantive diagnostics for presupposition in place. In the next section, I will use the presupposition tests from Section 1 to test McCawley's specific proposal about *bachelor*. I will conclude that McCawley's proposal about *bachelor* was correct. This is of interest, of course, only because it provides support for the more general theoretical claim that selectional restrictions can and should be treated presuppositionally.

[2] He attributes the proposal to personal communication from Charles Fillmore.
[3] I am using the notation of Heim and Kratzer [6].
[4] Which he again attributes to Charles Fillmore.

3 Presupposition and Selectional Restrictions

From our presupposition projection test, we see that it follows from both (16) and (17) that Dr. Seth is male, but not necessarily that Dr. Seth is unmarried:

16. Dr. Seth isn't a bachelor.

17. If Dr. Seth is a bachelor, I'll throw a party.

We also see that Dr. Seth's being male, but not his being unmarried, can be targetted by the *Hey wait a minute!* test. For instance, imagine Dr. Seth has applied for a job at our hospital. John has read the application, and knows a fair amount about Dr. Seth. Mary doesn't know much about Dr. Seth. They are discussing his application in the cafeteria:

17. John: Dr. Seth will be coming next week. If Dr. Seth is a bachelor, I'll throw a party.
    Mary: Hey wait a minute! I didn't know Dr. Seth is a man!
    Mary: #Hey wait a minute! I didn't know Dr. Seth is unmarried!

Finally, explicit ignorance of Dr. Seth's marital status is felicitous, but explicit ignorance of Dr. Seth's gender is not:

18. I'm not sure whether Dr. Seth is married or not, but if Dr. Seth is a bachelor, I'll throw a party.

19. #I'm not sure whether Dr. Seth is male, but if Dr. Seth is a bachelor, I'll throw a party.

References

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[2] Noam Chomsky. *Aspects of the Theory of Syntax*. MIT Press, Cambridge, MA, 1965.

[3] Kai von Fintel. Evidence for presuppositional indefinites. Manuscript, MIT, 1998.

[4] Kai von Fintel. Would you believe it? The king of France is back! Presuppositions and truth-value intuitions. In Marga Reimer and Anne Bezuidenhout, editors, *Descriptions and Beyond*. Oxford University Press, Oxford, 2004.

[5] Irene Heim. Presupposition projection. In *Reader for the Nijmegen Workshop on Presupposition, Lexical Meaning and Discourse Processes*. University of Nijmegen, Nijmegen, 1990.

[6] Irene Heim and Angelika Kratzer. *Semantics in Generative Grammar*. Blackwell, Oxford, 1998.

[7] James McCawley. Concerning the base component of a transformational grammar. *Foundations of Language*, 4:243–269, 1968.

[8] Scott Soames. Presupposition. In Dov Gabbay and Franz Guenther, editors, *Handbook of Philosophical Logic, vol. IV*. Reidel, Dordrecht, 1989.