PRESUPPOSITIONAL PHENOMENA IN ENGLISH

John Tynan

The analysis of presuppositional phenomena has proved extremely controversial [1]. On the one hand, there is the virtually undiscussed problem of the relation of these implications to given information generally and, on the other, their relation to other meaning implications, in particular to entailments and implicatures. Three claims will be made in the analysis that follows:

A. Presuppositions do not fit into any of the standard analyses of given-new information and must, therefore, be treated separately [2].

B. The assimilation of a number of different classes of presuppositional implications to entailments cannot be sustained [3].

C. As has been noted in the literature, the assimilation spoken of in B depends fundamentally on the analysis of negation. It will be claimed here that it is essential in linguistic analysis to distinguish between contexts of denial and contexts of 'ordinary' negation [4].

[1] A very good general account of this controversy can be found in Levinson, S. *Pragmatics*. Cambridge: C.U.P. 1983.

[2] One analysis, based on the notions of predictability and recoverability, can be found in Halliday, M. and R. Hasan. *Cohesion in English*. London: Longman. 1976 and Halliday, M. *An Introduction to Functional Grammar*. London: Edward Arnold 1985. Another analysis, based on the notion of saliency, can be found in Chafe, W. «Givenness, contrastiveness, definiteness, subjects, topics and point of view». In Ci, C. (Ed.) *Subject and Topic*. New York: Academic Press. 1976. A third analysis, based on the notion of mutual knowledge, can be found in Clark, H. and E. Clark: *Psychology and Language*. New York: Harcourt, Brace, Jovanovich. 1977.

[3] Such an assimilation is defended in Kempson, R. *Presupposition and the delimitation of Semantics*. Cambridge: C.U.P. 1975, and in Wilson, D. *Presuppositions and Non-Truth Conditional Semantics*. New York: Academic Press. 1975. It is also defendend in Lycan, W. *Logical Form in Natural Language*. Cambridge, Mass. M.I.T. Press, 1984. The proposal that presuppositional implications be assimilated to conventional implicatures (first advocated in Karttunen, L. and S. Peters. 'Conventional implicature' in Oh, C. and D. Dinneen. *Syntax and Semantics. Vol 11. Presupposition*. New York: Academic Press. 1979) will not be discussed here.

[4] The only other defence of this approach that I, at least, have come across is in Horn, L. 'Metalinguistic Negation and Pragmatic Ambiguity'. *Language*. 61.1. 1985.

Basically, the central assumption behind the approach that will be developed here is that it is necessary in the analysis of meaning to distinguish between *explicit* implications and other implications which, though they can equally be derived from what has been said, are only *implicit* in the utterances they are derived from. These latter implications can be regarded as deriving from assumptions that speakers make about the reality or realities they are representing or speaking about. In other words, the position adopted here leads to the view that language places at our disposal certain devices, more concretely certain syntactic structures and certain semantic predicates, which enable us to background in our linguistic utterances any information that we are assuming or taking for granted. It should be noted here, and will be made clear in what immediately follows, that these implicit assumptions (we shall henceforth call them presuppositional implications) are independent of other assumptions that speakers may have about their addressees' assumptions, strategies, etc.

1. *Presuppositions and Given Information.*

In the analyses of given information cited in fn. 2 above, there is, in each case, an essential appeal to the speaker-hearer relation. Basically, they account for given information as a product of a speaker's monitoring of his or her utterances in such a way as to utilize to the maximum whatever information he or she assumes the addressee to be in possession of at the moment of speech. Presuppositional implications, however, do not seem to be in any way dependent on the speaker-hearer relation. Let us look at a few examples[5]:

(1) a. It was in August that Mary left
     » Mary left.
    b. Mary has stopped studying linguistics
     » Mary was studying linguistics
    c. Mary has failed her driving-test again
     » Mary has already failed her driving-test al least once

We would probably all of us agree that it is not absolutely necessary for the correct utterance of (b) or (c) that the speaker assume that the addressee shares the presuppositions indicated. It is sufficient for the correct use of the sentences that the speaker alone assumes them, and he or she could not be accused of breaking any linguistic conventions should it turn out that the addressee, in point of fact, holds divergent or even opposite assumptions. Sentence (a), however, seems more problematic. Yet, when we examine (2) below, we see that the presupposition still follows. We would hardly want to insist in this case that the assumption about the addressee must also hold. It cannot, then, be a necessary condition on the correct use of the sentence:

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[5] I will follow standard practice and use the symbol '»' for presuppositional implications.

(2) It was in August that Mary left, wasn't it?
  » Mary left

  The limitation of presuppositions to strictly speakers' assumptions, with no riders attached, is not without its consequences for the traditional analysis of presuppositions. As is well known, the early history of this analysis centred around the analysis of definite descriptions [6]. So, for example, presuppositionalists claimed that the existential implication regarding the object described followed from the use of these descriptions in both positive and negative statements:

(3) a. The Parents' Association called a meeting
       » There is a Parents' Association
    b. The Parents' Association didn't call a meeting
       » There is a Parents' Association

Clearly, this implication, as it stands, is far too strong. The notion of existence involved would have to be relativized to all kinds of fictional and possible worlds. Apart from this, however, the whole analysis in some way misses the point. When a speaker uses a definite as opposed to an indefinite description, the basic assumption that he or she is making is that the addressee can recognise or locate in some way, either mentally or physically, the object that is being referenced. This, of course, means that the speaker-hearer relation is vital in the analysis of definite reference, and should, therefore, be treated together with other phenomena accounted for in the analysis of given information [7].
  The presuppositional analysis of verbs of judging, which has also proved very controversial, would be equally eliminated in the approach that is being taken here [8]. Let us look at a few examples:

(4) a. Mary criticised John for writing a letter
       » A letter was written
       » It was John who wrote it
    b. Mary accused John of writing a letter
       » A letter was written
       » It was John who wrote it

The problem with verbs of judging, such as 'criticise' and 'accuse' is to know where exactly the presuppositions come from. Do they follow from the sentences them-

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[6] The first account goes back to Frege, G. (1892) 'On sense and reference' in Geach, P. and M. Black. *Translations from the Philosophicald Writings of G. Frege.* Oxford: Blackwell. 1952. Presupposition came to occupy such a central place in contemporary semantics as a result of P. Strawson's 'On referring'. *Mind* 59. 1950.

[7] Definite reference is in fact treated as a category of given information in all the references cited in fn. 2. For a detailed analysis along pragmatic lines, see Hawkins, J. *Definiteness and Indefiniteness.* London: Croom Helm. 1978. This approach is also at the basis of the analysis given in Clark. H. and C. Marshall. 'Definite Reference and Mutual Knowledge', in Joshi, A. et al. *Elements of Discourse Understanding.* Cambridge: C.U.P. 1981.

[8] See Fillmore, C. 'Verbs of Judging: An Exercise in Semantic Description,' in Fillmore, C. and D. Langendoen (Eds.) *Studies in Linguistic Semantics.* New York: Holt, Rinehart and Winston. 1971.

selves, or should we rather say that they are assumptions either of the speaker or of the subject of the verb of judging, i. e. Mary in the case of the sentences in (4). Though I will not enter into this discussion here, it seems to me that the correct answer in this case is that verbs of judging must have their presuppositions attributed to their logical subject. This being the case, they are eliminated both from presuppositional analysis and from the category of given information.

## 2. *Presuppositions and Entailments.*

2.1. *Some essential distinctions.*

Throughout this account I shall use the term 'implication' as a general cover-term for any kind of inference that can be derived from a linguistic utterance, reserving the terms 'entailment' and 'presupposition' for specific types of implication, with the defining characteristics to be outlined below. Consider the following sentences:

(5) a. Cain Killed Abel (*P*)
    b. Abel died (*Q*)
(6) a. Cain dind't kill Abel
    b. Abel may or may not have died
(7) a. Abel didn't die
    b. Cain didn't kill Abel

There is a clear implication from (a) to (b) in (5). Using '*P*' and '*Q*' as symbols for these sentences, we can now ask ourselves; what is the nature of the relation? What are its logical characteristics? From (5) we can see that whenever *P* is true, *Q* must also be true. From (6) we see that *P* is false, *Q* may be either true or false; the truth or falsity of *Q* is in some way independent of the falsity of *P*. Finally, from (7), we see that when *Q is false, P* must also be false. We are told in logical analysis that whenever these conditions are fulfilled for any two sentences *P* and *Q,* then the implication relation between them is one of entailment, i. e. *P* entails *Q*[9]. We can also say that the entailment relation in such cases follows from the fact that the truth of *Q* is one of the necessary conditions on the truth of *P*. In the particular case that concerns us, if it is true that Cain killed Abel, then it must, of necessity, be true that Abel died. Otherwise, the claim made in (5a) simply could not hold. We can tabulate these logical characteristics in the following way:

(8)

$$
\begin{array}{ccc}
P & & Q \\
T & \longrightarrow & T \\
F & \longrightarrow & TvF \\
F & \longleftarrow & F
\end{array}
$$

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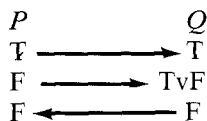
[9] A discussión of this relation, one of the keystones of semantic analysis, will be found in Bradley, R. and N. Swartz. *Possible Worlds: An Introduction to Logic and its Philosophy*. Oxford: Blackwell. 1979. It will become clear from what follows that standard logical accounts of entailment must be extended if they are to be of use in linguistic analysis.

Presuppositional implications, at first sight anyway, seem to be completely different from entailments. Consider the following:

(9) a. Mary forgot that she had arrived late (*P*)
    b. Mary had arrived late (*Q*)
(10) a. Mary didn't forget that she had arrived late
    b. Mary had arrived late
(11) a. Mary hadn't arrived late
    b.1. Mary forgot that she had arrived late?
    b.2. Mary didn't forget that she had arrived late?

What are the characteristics of the relation between *P* and *Q* in this case? In (9), it would seem to be the case that if *P* is true, then *Q* must be true. There is no difference here between presuppositions and entailments. In (10), it would also seem to be the case that for *P* to be false *Q* must also be true. In this, presuppositions do seem to differ from entailments. Finally, we must ask ourselves what our judgement is of *P* when *Q* is false. As indicated in (11), it seems difficult to make any judgement at all about *P* in this case. Initially anyway, most of us would probably want to say that *P* is in some way absurd or nonsensical if *Q* is false, i. e. *Q,* in such cases, is a statement about a non-existing reality. We can say that it is neither true nor false. These characteristics can be tabulated as follows:

(12)

$$
\begin{array}{ccc}
P & & Q \\
T & \longrightarrow & T \\
F & \longleftarrow & T \\
\sim(T \vee F) & \longleftarrow & F
\end{array}
$$

It has been claimed, however, that table (12), and the justification given for it in the preceding paragraph, is mistaken. (cf. references in fn. 3). The problem with (12) is that it does not reflect strict properties of truth. The theory of truth that semantics (and classical logic) is based on is known as the correspondence theory of truth [10]. Intuitively, this theory is based on the belief that all statements either correspond to reality or do not; the so-called law of the excluded middle eliminates the possibility of there being any middle term between truth and falsity. Let us, in the light of this theory then, reanalyse the relation between (8a) and (8b).

Objections to the analysis that we have just provided have centred on the second and third lines of the truth table in (12). These objections have usually been expressed somewhat as follows: Let us imagine a situation in which a speaker claims that Mary forgot that she had been late [11]. The addressee might very well disagree with this claim in the following way:

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[10] For a defence of this theory against the coherence and pragmatic theories, see Blackburn, S. *Spreading the Word.* Oxford. O.U.P. 1984.

[11] I assume throughout that 'she' refers to Mary.

(13) You're wrong, you know. *Mary didn't forget that she had been late.* I distinctly remember that she arrived early that day.

Clearly, in contexts such as (13), the implication to presupposition (9b) no longer holds. Rather, the implication from (13) is that (9b) is false. It seems to be the case, then, that implication (9b) may be either true or false, depending on the context in which sentence (9a) occurs. But this, from a strictly truth-functional point of view, is exactly what happens also with entailment relations. As we saw with (6a) and (6b), when the entailing sentence is false, the sentence entailed may be either true or false. We are now arguing that, when its presupposing sentence is false, a presupposition also may be either true or false.

The third line of (12) must also be changed if we adopt the correspondence theory of truth. From the point of view of this theory, what matters is whether or not the statement that Mary forgot that she had arrived late corresponds to reality. Since it could not possibly be true that Mary forgot that she had arrived late if she had in actual fact arrived early, the falsity of Q would, in all such cases, guarantee the falsity of P. We are left, then, with a third line in (12) which is exactly the same as (8). In fact, since the first lines of both tables are the same, we can now eliminate (12) altogether in favour of (8).

We have already said, however, that presuppositions, from an intuitive point of view, are basically background assumptions of the speaker whereas entailments follow as semantic implications from what is said, i. e. they are derived from the literal meaning of sentences. But if the analysis just proposed is correct, linguistic theory is incapable of distinguishing between them. In spite of this, however, psycholinguists have insisted that successful communication can only take place when language users are able to monitor the background assumptions that are in operation at any given moment in a linguistic interaction [12]. This being the case, it would seem that linguistic theory must develop definitions and heuristics which will be capable of dividing them.

Standard analyses of presuppositions have been based on the supposed difference between these implications and entailments in negative contexts: presuppositions, it is said, survive in negative contexts while entailments disappear. As we have now seen, however, this claim is, from a strictly logical point of view, open to question. The basic strategy, obviously, must be to find some logically clear distinction between them.

For all meaning implications, whether entailments, presuppositions or implicatures, we can always find a context in which the implication no longer holds. So, for any implication from P to Q, let us say PxQ, we can always find a given context, let us say U...V, in which it is not the case that PxQ. One such context for entailment implications is that of negation; another is the modal context of epistemic possibility. So, for example, while the implication from (a) to (b) follows in (14), it does not necessarily follow in either (15) or (16).

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[12] See Clark, H. and E. Clark. *Psychology and language.* New York: Harcourt Brace Janovich. 1977. See also Greene, J. *Language Understanding: A Cognitive Approach.* Milton Keynes: Open University Press 1986.

(14) a. Mary is Welsh
     b. Mary is British
(15) a. Mary is not Welsh
     b. Mary is British
(16) a. Mary may be Welsh
     b. Mary is British

Studies of the characteristic properties of presuppositional implications have concentrated on three types of context: holes, plugs and filters [13]. The object of these studies has been to define the ways in which the presuppositions of simple sentences survive or not when these same simple sentences are contained in compound or complex sentences. Plugs are contexts in which presuppositional implications do not survive. Since entailments do not survive either in these same contexts, they are of no use for our present purposes and will not be discussed here. Holes are contexts in which presuppositions survive and it is on these that the approach being developed here depends.

Holes have basically two sub-categories: negative contexts and modal contexts. We have already seen some of the problems associated with negative contexts and will delay further comment until section three. Modal contexts, at least those of epistemic possibility, eliminate, as we have just seen, entailment implications. Presuppositions, on the other hand, survive. Consider the following:

(17) a. It may have been in August that Mary left
      » Mary left
    b. Mary may have forgotten that she arrived late
      » Mary arrived late

Both of these contrast with (16) in that the implications survive. We can appeal, then, to modal contexts in order to establish a clear-cut distinction between entailments and presuppositions. The logical properties of the modal operator of possibility are well known and all that we would need to do in order to establish the desired distinction is to add an extra line to the truth-table in (4) In the case of entailments it would indicate that possibly P implies either Q or not-Q, and in the case of presuppositions it implies Q.

2.2. Typical Presuppositional Contexts in English.

In what follows, I will outline some of the contexts in which presuppositional implications typically appear in English. It should be clear from section 2.1. that these implications should have the following four characteristics: they can be derived in positive, negative, and modal contexts, and they no longer hold in contexts of denial. I will in each case give an example of a positive sentence and a presuppositional implication that can be derived from it. In the first example,

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[13] These contexts were first outlined in Karttunen, L. 'Presuppositions of conpound sentences'. *Linguistic Inquiry IV*. 1973. A later analysis, incorporating insights gained in the interim can be found in Soames. S. 'A projection problem for speaker presuppositions'. *Linguistic Inquiry 10*. 1979.

I will show that the presupposition has the four characteristics mentioned, but will confine myself to the first characteristic in all other cases. No attempt will be made to provide an exhaustive list; the whole object of this section is simply to make it clear just how prevalent these implications are within the language.

(18) a. *Factive Predicates:* It is significant that the Minister refused to comment.
         » The Minister refused to comment
         It isn't singnificant that the Minister refused to comment
         » The Minister refused to comment
         It may be significant that the Minister refused to comment
         » The Minister refused to comment
         I don't know what you're talking about. It isn't significant that the Minister refused to comment. As a matter of fact he commented at length to those who were present.
   b. *Cleft Sentences:* It was Mary who left before the party ended.
       » Someone left before the party ended
   c. *Iteratives.* He doesn't write to me anymore.
       » He did write to me at one time
   d. *Temporal Clauses:* Mary arrived after Susan had left.
       » Susan left
   e. *Aspectual Verbs:* Mary has stopped studying semantics.
       » Mary was studying semantics before this
   f. *Comparisons of Equivalence:* Mary is as difficult to please as I am.
       » I am difficult to please
   g. *Counterfactual Conditionals:* If we had arrived on time, there would have been an accident.
       » We didn't arrive on time.
   h. *Non-Restrictive Relatives:* The President, who is on an official visit to France, will be coming back on Friday.
       » The President is on a official visit to France

3. *Negation and Contexts of Denial.*

It will be clear from section 2 that no attempt is being made here to justify a three-valued logic for the semantics of natural languages [14]. From the point of view of truth, it seems to me that the third line of the truth-table in (12) must be assimilated to the third line of the truth-table in (8). This is not to deny, of course, that in the present circumstances, in which France is a republic, it would be somehow absurd or crazy to make a claim such as the following:

(19) The present King of France is bald.

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[14] It is not that I am criticising these logics as such. It is rather that they seem to me unnecessary for natural language. See Van Fraassen, B. *Formal Semantics and Logic. New York: Macmillan. 1971.*

Notwithstanding its absurdity, however, it seems to me that we cannot deny a truth-value to any utterance of this sentence: it is simply and plaintly false. But that seems to commit us to the claim that its negation, in 20), must be true.

(20) The present King of France isn't bald

Most of us balk as quickly at (20) as we do at (19). It seems that we do not want to commit ourselves to either claim. Russell ingeniously worked his way round the problem by refusing to treat definite descriptions as atomic symbols and introducing scope distinctions into his treatment of logical operators such as negation [15]. So, for him, (20) could have two interpretations, one in which it is false and another on which it is true, depending on whether the negation is treated as primary or internal in one case and secondary or external in the other. The logical forms which he proposed as corresponding to these two interpretations are as follows:

(21) a. $\exists$x (kx $\wedge$ $\forall$ y (Ky $\longrightarrow$ y $=$ x) $\wedge$ ~B(x))
  b. ~$\exists$ x (kx $\wedge$ $\forall$ y(ky $\longrightarrow$ y $=$ x) $\wedge$ B(x))

Sentence (21a) can be interpreted as asserting that there is a King of France who is uniquely identifiable and who is not bald. At the present stage of French history, this assertion is clearly false. Sentence (21b), on the other hand, asserts that there is no uniquely identifiable entity corresponding to the description: 'bald King of France'. At present, this assertion is clearly true.

Two comments are in order about this analysis. It postulates that two assertions are inherent in the use of definite descriptions, i. e. it claims that in using a definite description a speaker asserts an existential condition and an identifiability condition on the object referenced. We have already noticed that the existential condition, as it stands, is far too strong. What needs to be pointed out here, however, is that neither of these conditions, even if correct, are *asserted* in an utterance containing a definite description; the most we are entitled to say is that the identifiability condition is *assumed,* and it is assumed in relation to the addressee, not in its own right. A further defect of Russell's analysis is that it assumes an inherent semantic ambiguity in negation. Negation, in other words, may be predication-denying or presupposition-denying, and whether it is one or the other is, Russell claims, in no way dependent on context, it is an essential property of all negative sentences.

Later analyses have sought to eliminate this ambiguity by claiming that all natural language negation is external, i. e. both presupposition-denying and predication-denying, the context determining in each case whether it is one or the other [16]. In other words, this analysis claims that sentences (20) above, as it

[15] See Russell, B. 'On denoting'. *Mind.* 14. 1905. See also the introduction to Russell, B. and Whitehead, A. *Principia Mathematica.* Cambridge: C.U.P. 2nd Edition. 1923.

[16] See Kempson. (op. cit.) fn. 3. This view is also defended in Gazdar, G. *Pragmatic: Implicature, Presupposition and Logical Form.* New York. Academic Press. 1979. See also Atlas, J. 'Negation, ambiguity and presupposition', in *Linguistics and Philosophy,* 1. 1977.

stands, can have either of the interpretations given in (21). What I would like to claim here, however, is that sentence (20), as it stands, can only be interpreted as predication-denying. It may be, of course, that the logical form of negative sentences should in all cases be represented with the negative operator including in its scope the whole sentence to which it is attached. That is not an argument that I will enter into here. What I would like to maintain, however, is that there is a clear need in the analysis of English to keep a definite dividing-line between contexts of denial and contexts of ordinary negation [17].

Positive and negative polarity items seem to depend, in their distributional patterns, on whether the context in which they occur is affective or non-affective. The general pattern of this distribution can be seen in the following:

(22) a.   They have *already* left
      *b.   They haven't *already* left
(23) a.   I *would rather* go to the cinema
      *b.   I *wouldn't rather* go to the cinema
(24) *a.   We will *ever* see him again
      b.   We won't *ever* see him again
(25) *a.   The exam was *all that* hard
      b.   The exam wasn't *all that* hard

Clearly, the underlined positive polarity items in (22) and (23) are perfectly acceptable in affirmative sentences, while the underlined negative polarity items in (24) and (25) are not. On the other hand, the negative polarity items are perfectly acceptable in the (b) sentences, while the positive polarity items, unless they occur in a very determinate context, are not. So, for example, when it occurs in discourse (26), sentence (23b) is unacceptable, but in the context of discourse (27) it is perfectly acceptable.

(26)   * I don't know what to do this evening. I wouldn't rather go to the cinema, but I don't know what else I can do.
(27)   *Mary:* You needn't be polite. I know you would rather go to the cinema, so let's go and see what's on.
       Peter: I wouldn't rather go to the cinema. I've already had a look at what's on and there's nothing that interests me.

Contexts (27) is very clearly a context of denial. Baker (see fn. 17) noted that positive polarity items were acceptable in contexts of double negation, i. e. in contexts where there was an implication to a corresponding affirmative sentence in which the positive polarity item was acceptable:
(28)   There isn't anyone in this camp who wouldn't rather be in Montpelier.
       Implication: Everyone in this camp would rather be in Montpelier.

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[17]   The analysis of polarity items has been dealt with in detail by Klima, E. 'Negation in English' in Fodor and Katz (Eds.) *The structure of Language.* Englewood Cliffs: Prentice Hall. 1964. See also Baker, C. 'Double Negatives' in *Linguistic Inquiry* 1. 1970, and Fauconnier, G. 'Polarity and the Scale Principle'. *C.L.S.* 11. 1975.

This is not, however, the type of negation that I am drawing attention to here. Karttunen and Peters (see fn. 3) drew a distinction between what they called ordinary negation and contradiction negation. They noted that negative polarity items cannot appear in contradiction negation. This is the same point that I am making here, yet they went on to claim that contradiction negation is non-specific and worked out a formalism to this effect. Yet surely the whole point of this type of negation is to draw attention to some specific implication or aspect of the context with which the speaker is not in agreement. The point that I would like to make is that this type of negation is only acceptable when it is accompanied by either a specific assertion or a clear implication as to what it is the speaker disagrees with. And this is true of denial negation generally. Much more than an assertion about states of affairs, it is an objection to interpretations of states of affairs which have been put forward in context [18]. Once this is admitted, however, and once we recognise the need to keep both types of negation apart, if we are to account for the distributional patterns of polarity items, then the claim that presuppositions and entailments form one class of meaning implications loses a great deal of its force. This approach implies, however, that there is a need within semantic analysis to allow for an object language that can be self-referential. I will not try to follow the consequences of this implication here.

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[18]   This point is also made by Wilson (see fn. 3) though she insists on the similarity of entailments and presuppositions.