

To appear in:
Szabó, Zoltán (ed.) *Semantics vs. Pragmatics*. Oxford: Oxford University Press.

PRESUPPOSITION AND RELEVANCE

Mandy Simons
Carnegie Mellon University, Dept. of Philosophy
simons@andrew.cmu.edu
August 2002

1. Two types of Relevance Implicature

Recall Grice's well-worn example from *Logic and Conversation* about Smith, his girlfriend, and his trips to New York:

- (1) A: Smith doesn't seem to have a girlfriend these days.
B: He has been paying a lot of visits to NY recently.

Grice says that in this dialogue, B implicates that Smith has, or may have, a girlfriend in New York. But in saying this, Grice under-describes his own example. For this proposition alone does not suffice to satisfy the requirements of Relation, the maxim presumed to be operative in this case.

Grice says that "[B] implicates that which he must be assumed to believe in order to preserve the assumption that he is observing the maxim of Relation." But the assumption that B thinks that Smith might have a girlfriend in NY is not in itself sufficient to render B's utterance relevant. An additional assumption is required, one which explicitly links the issue of having girlfriends to the issue of travel to NY: perhaps, the proposition that a person who has a girlfriend somewhere travels there frequently; or that many people have long-distance relationships, and these involve frequent trips to the same place. If A can work out that B is making *this* supposition, then she can immediately see the relevance of B's response to her remark. Without it, relevance cannot be established. So this general background assumption must be implicated by the utterance.¹

Now, this background assumption is not enough by *itself* to guarantee relevance. Suppose that B believes the background assumption, but does not believe that Smith might be traveling to NY to visit a girlfriend. Then his utterance is still in violation of Relation. B should invoke the background assumption only if it is relevant itself,

1. Zoltan Szabó points out (p.c.) that Grice may be reluctant to call this background proposition an implicature because the speaker does not really intend to convey this proposition to the addressee. But there are cases where the speaker may intend the background proposition as part of, or even as the main point of, what is communicated. See example (2) below.

that is, only if he believes that it might provide an explanation for Smith's trips to NY. So (at least) two propositions are implicated: some "background" proposition connecting girlfriends and travel; and the "foreground" proposition that Smith might have a girlfriend in New York. The "background" implicature is in some sense prior to the "foreground" implicature; the calculation of the latter requires the prior calculation of the former. The difference between these two types of implicature is made explicit in Sperber and Wilson's (1986) distinction between *implicated assumptions* and *implicated conclusions*. This paper will be concerned with implicated assumptions, and with the possibility that this notion has a central role in explicating the nature of presupposition.

2. Implicated Assumptions and Presuppositions

Using the ordinary, non-technical sense of the term, we might be inclined to say that B, in saying what he says in the dialogue above, is presupposing a particular relation between girlfriends and travel. Moreover, this implicated assumption has certain properties in common with the kinds of things which, in technical parlance, are often called presuppositions. The implicated assumption might come as new information to A, but probably not: probably she shares this assumption with B. Presuppositions, of course, may constitute new information but frequently don't. If A does not share B's assumption about the relation between travel and girlfriends, or doesn't think it applicable to Smith, then an appropriate response on her part to B's assertion would be to deny that assumption – to say *Smith only travels for business* or some such thing. Similarly, faced with a presupposing utterance the presupposition of which one does not accept, the appropriate response is to deny the presupposition. Also, of course, the implicated assumption is in some sense backgrounded; it is not the main point of B's utterance. However, an implicated assumption *may* be a main point. Consider the dialogue below:

- (2) Ann: Did George get in to a top university?
Bud: His father is a very wealthy man.

Bud here implicates that a place at a top university can be bought. From this implicated assumption and the content of his assertion can be derived the implicated conclusion that George did get in to a top university. Although this is the ostensible main point, being the answer to Ann's question, it is plausible that Bud's real point has to do with the privileges of wealth. Similarly, the presuppositions of utterances are normally backgrounded, but may in some cases provide the real point of an utterance.

These observations raise a tantalizing possibility: perhaps the things which we call "presuppositions" are a kind of relevance implicature: propositions which a hearer must assume in order to find the utterance relevant. This is the thesis which

I will pursue here. This proposal builds on that of Wilson and Sperber 1979, in which focal presuppositions are argued to be propositions necessary for establishing the relevance of the main point of the utterance. It also draws on Blakemore 1987, where it is argued that certain lexical items function to guide the addressee's process of establishing the relevance of an utterance. I will attempt here to extend these ideas into a broad characterization of presupposition.

3. Desiderata for a theory of presupposition

I want to begin by clarifying the goals of this discussion. My proposal will constitute (a preliminary formulation of) a theory of presupposition. So let me say what I think a theory of presupposition is supposed to do. It is supposed to do two things: First, it is supposed to provide a relevant *description* of the phenomenon as a whole. Second, it should provide an *explanation* for why things are as described. This paper aims to accomplish only the first of these two tasks. But the importance of this task, of getting the description right, should not be underestimated. The task of giving an explanation is enormously simplified when we have an appropriate characterization of the phenomenon we are trying to explain. It is not impossible that we would arrive at the correct explanation in the absence of a correct description, but it is not very likely.

Both the traditional semantic account of presupposition and the now widely-accepted pragmatic view proposed by Stalnaker offer *descriptive characterizations* of the phenomenon of presupposition.² (For a recent formulation and detailed discussion of the semantic account, see Burton-Roberts 1989; for Stalnaker's account, see in particular Stalnaker 1974, 1998 and 2002.) Stalnaker (2002) makes very clear that his goal, in formulating his account of presupposition, was to offer a redescription or reinterpretation of the familiar data concerning presupposition, and not to offer a predictive or explanatory theory. The attempt to formulate a pre-theoretical description of presupposition is problematic in (at least) one respect, which is that there is disagreement about the cases which constitute the phenomenon. However, there is a reasonably well-established set of central cases on which the descriptive characterization can be based. The descriptive characterization will, in turn, serve to delimit the scope of the phenomenon for which we seek an explanation (see section 4.3.2. below). And the plausibility of the limits set by the description will, in turn, provide a criterion for evaluating it.

To reiterate: the importance of the descriptive characterization is that it tells us just what it is that we need to explain. According to the description offered by the semantic view, the presuppositions of a sentence are those propositions which must be true in order for the sentence to have a truth value. This description turned out to be problematic in a variety of ways. But if this were the correct description of

2. The same is true of the various accounts of presupposition in the dynamic semantic literature. See e.g. Heim 1983, Van der Sandt 1992.

presupposition, it is clear what an explanation of the phenomenon would have to look like: it would have to explain, for each of the variety of cases, why (presuppositional) sentence S, or an utterance thereof, would lack a truth value if proposition *p* were false. Strawson offers such an explanation for the existential presuppositions of expressions used to refer. Strawson suggests in “On Referring” that “one of the main purposes for which we use language is the purpose of stating facts about things and persons and events” (p.228). The achievement of this purpose involves two tasks: identifying what you are talking about (the referring task), and then saying something about it (the predication task). But if the expression used to refer does not in fact do so – if the existential presupposition fails – then the second task cannot be undertaken. In Strawson’s view, the truth or falsity of an assertion of this kind depends on what happens in performing this second task. Hence, where the existential presupposition fails, no statement evaluable for truth is made.

Stalnaker’s view takes the presuppositions of a sentence to be those propositions which must be presupposed by the *speaker* of the sentence in order for the sentence to be appropriately used. Again, this is not offered as an *explanation* of presuppositional phenomena. Rather, it is offered as the description which our further research should be oriented towards explaining. An explanatory theory of presupposition would have to tell us why utterance of particular sentences would turn out to be inappropriate unless some proposition *p* were presupposed by the speaker. Stalnaker offers one such explanation, for the presuppositionality of *know* (Stalnaker 1974, p.206). He suggests that a speaker who asserts “x knows that P” in a situation in which P is in doubt or dispute “would be saying in one breath something that could be challenged in two different ways.” The speaker would thus leave his communicative intention unclear: Is his main point to make a claim about the truth of P, or about the epistemic state of x? Stalnaker suggests that as speakers normally aim to communicate effectively, it would normally be unreasonable to assert “x knows that P” in such a context. So a speaker can reasonably make this assertion only if he presupposes P, that is, believes P to be commonly accepted by the group of interlocutors.

Note that in both of these examples, the descriptive account of presupposition is highly general, intended to cover all presuppositional phenomena; but the explanations given are highly specific, and tell us for only a limited set of cases why presuppositionality arises.

Stalnaker’s account points towards another measure of adequacy of a description of the phenomenon, namely, that explanations for some of the phenomena in question fall out from the description. Thus, Stalnaker’s description of presupposition provides an explanation for certain projection facts, even prior to a specific explanation of why the atomic sentences in question meet the description given. Ultimately, the adequacy of any proposed description is measured by the adequacy of explanations which depend upon it.

My goal in this paper, then, is to offer a new description of the phenomenon of presupposition. I will not attempt here to argue against existing descriptions. Instead,

I will focus on the arguments in favor of the redescription I offer, in particular, its potential to provide the foundation for an explanatory theory of presupposition.

4. The thesis and some initial support

4.1. The thesis

The redescription I propose is this: The presuppositions of an utterance are the propositions which the hearer must accept in order for the utterance to be relevant for her. I use the term *accept* in the sense of Stalnaker 1984, who characterizes acceptance as

a category of propositional attitudes and methodological stances toward a proposition, a category that includes belief, but also some attitudes (presumption, assumption, acceptance for the purposes of argument or an inquiry) that contrast with belief and with each other. To accept a proposition is to treat it as true for some reason.³

The first consequence of my proposal: on this view, it is utterances, rather than sentences or speakers, which are the primary bearers of presupposition. Sentences bear presuppositions in the following derivative sense: For a sentence S to have a presupposition p is for the relevance of an utterance of S usually to require the hearer to accept p. (The vagueness of this formulation accommodates the fact that it is almost impossible to find a sentence – even among the classic cases of presupposition – whose utterance invariably induces a presupposition.) Speakers also have presuppositions in a derivative sense: For a speaker to presuppose p in uttering S is for the speaker to intend the addressee to accept p for the purpose of establishing the relevance of the utterance. Or we can perhaps say more simply that for a speaker to presuppose p in uttering S is for the speaker to intend p to be a relevance establisher for her utterance. The questions we must now ask are: What is it for an utterance to be relevant, and what is it for a proposition to be a relevance establisher for an utterance? To answer these questions, I will appeal to the Relevance Theoretic construal of relevance (Sperber and Wilson 1986, Wilson and Sperber 2003).⁴

3. Stalnaker also takes acceptance to be the propositional attitude relevant to presupposition. See Stalnaker 2002.

4. There is a second major thread in Sperber and Wilson's work, which is the argument that the truth conditional content of utterances is not determined solely by compositional semantic interpretation and linguistically mediated references to context, but includes information derived via Relevance driven inference. By invoking Sperber and Wilson's notion of Relevance in the explication of presupposition, I do not intend to commit myself

For Sperber and Wilson, relevance is a matter of how well and productively some input interacts with existing salient assumptions of the interpreter. An utterance is *relevant in a context* just in case it has some contextual effects in that context. A *context* is here construed as a set of propositions, a subset of an individual's assumptions. This notion of context concerns an individual's epistemic state, not the common beliefs (or commonly accepted propositions) of a group of individuals. *Contextual effects* are any changes to the context, in particular, addition or elimination of propositions, or strengthening of the degree of belief in the proposition. Such effects are derived by deductions involving (a) the proposition expressed and (b) any *contextual assumptions*, i.e. propositions in the context. An utterance is *relevant for an individual* at a given time just in case it is relevant in one or more of the contexts accessible to that individual at that time.⁵ Finally, an utterance is *optimally relevant* for an individual just in case it produces adequate contextual effects for the processing effort required. Processing effort is presumed to be affected by the complexity of the utterance being processed; by the size of the context required to derive contextual effects; by the complexity of the deductions required to derive them; and by the relative accessibility of the required assumptions. What determines whether the contextual effects are *adequate* for the effort required? While there is no definitive answer to this question, it is clear that the adequacy of contextual effects is not just a matter of their number, but of their current usefulness. Sperber and Wilson 1995 suggest that the worth of a contextual effect is determined by its contribution to the individual's cognitive goals.⁶

The basic picture we have, then, is this: In interpreting an utterance, an addressee must select a context – a set of propositions – relative to which to interpret it. She will seek a set of propositions which interacts productively with the content of the utterance, allowing her to derive further inferences which are of interest to her. The harder she has to work to find such a context, or to derive interesting inferences, the less relevant the utterance will be for her.

This picture of interpretation corresponds nicely to some basic intuitions about relevance. If we are preparing to cook pasta sauce, and you tell me: *We're out of garlic*, the utterance is intuitively relevant. And it is plausible that in such a situation, I have readily available a context – a set of propositions – with which the content of your utterance will interact productively. On the other hand, if you were to say the same thing while we are at the movies and planning to go out for dinner afterwards, I would be likely to find your utterance quite *irrelevant*. And this seems to

to this other aspect of their view.

5. All of these notions are elaborated on in Sperber and Wilson 1986.

6. Sperber and Wilson 1995 introduce the term *positive cognitive effects* for those contextual effects which contribute to the achievement of cognitive goals. Since 1986, they have in general used the term *cognitive effects* for any contextual effects occurring in a cognitive system (e.g. a human interpreter).

correspond to the fact that in this situation, there is no set of assumptions currently salient to me which, in conjunction with your utterance, allows me to derive inferences which serve my current cognitive goals.

However, the technical notion of relevance defined above does not always correspond to the intuitive one. Nor is it intended to. Sperber and Wilson make explicit that the notion of relevance defined in terms of contextual effects is not intended as a definition or characterization of the ordinary notion. Rather, it is intended to provide a foundation for a cognitive theory of utterance interpretation. It will be important to keep in mind in what follows that I use the term relevance in this technical sense. We will have occasion below to consider cases where a prediction of relevance failure in the technical sense does not correspond to irrelevance in the ordinary, intuitive sense.

We want now to see how the machinery of Relevance Theory might be used to explicate the notion of a proposition being a relevance requirement for an utterance. However, there are clearly many, many different ways for an utterance to be relevant, and many, many different ways for an utterance to fail to be relevant. So in different cases, there will be different reasons why a certain proposition is required for the relevance of a particular utterance. I cannot attempt here anything like a complete investigation of this topic. But let me offer a couple of possibilities, as indications of the sort of requirements that we might find.

The simplest way for a proposition to serve to establish the relevance of an utterance is for it to be a contextual assumption which, in conjunction with the utterance content, leads to the derivation of a (useful) contextual effect, an effect which justifies the required processing effort. In the Gricean example with which I opened the paper, the background proposition connecting girlfriends and travel serves to establish the relevance of B's utterance about Smith's trips to New York. If A accesses a context containing this proposition, she will be able to infer that B believes that Smith might have a girlfriend in New York, and this is a useful contextual effect in the situation. Indeed, A *needs* to access such a context in order to derive a useful contextual effect. So we can think of this proposition as being a relevance *requirement* for the utterance: A must be willing to accept this proposition and to treat it as a contextual assumption in order for B's utterance to be relevant for her.⁷

We do not, of course, say that the sentence uttered by B – *He's been paying a lot of visits to New York recently* – itself presupposes anything about girlfriends and travel. It is its utterance in that particular dialogue which bears the presupposition. To apply this notion of relevance requirement to the familiar cases of presupposition, we need to be able to say for particular sentences, or classes of sentences, that their utterance will in almost every case be relevant to an addressee only if she is able and

7. Here, I'm ignoring other possible interpretations of B's utterance, such as that Smith has been too busy with his business trips to form any romantic attachments. Deriving this implicature/contextual effect would require a different background assumption.

willing to interpret the utterance relative to a context containing a particular (kind of) proposition. I think that the existential presuppositions associated with referring expressions may be explicable in this way, and perhaps for reasons not dissimilar to those suggested by Strawson (see p.4 above). The relevance of an utterance in which a speaker attributes some property to someone or something depends on what further inferences the addressee can derive from the fact that the individual in question has the property named. The derivation of such inferences cannot get off the ground unless the addressee is willing to accept the existence of the relevant individual in the first place, i.e. is willing to interpret the utterance relative to a context containing the proposition that the individual in question exists.

Now, it is true that the addressee of an utterance with a failed existential presupposition would not necessarily find the utterance irrelevant, in the ordinary intuitive sense of the word. Suppose, for example, that I tell you:

(3) I met Jill's husband yesterday.

Suppose further that you know that Jill has no husband. So my utterance has a relevance requirement that you do not accept, and thus, by the characterization of relevance adopted here, it fails to be relevant. Nonetheless, you might find my utterance interesting in a number of ways: the fact that I produced it allows you to deduce that I believe that Jill has a husband; maybe it makes you wonder whether Jill might have a partner who could be mistaken for her husband; and so on. Moreover, if we are currently talking about Jill, or about what I did yesterday, then you are unlikely to judge my utterance irrelevant in the ordinary sense.

To address the second point first: you can certainly deduce from my utterance that I met someone who I believed to be Jill's husband. And this proposition is likely to produce effects in whatever context has been made salient by our conversation so far. Hence, the utterance does not completely fail to be relevant, even in the technical sense.

But it is also useful here to distinguish between what I would call *intended relevance* and *non-intended relevance*. In making my utterance, I presumably intended you to derive contextual effects from the proposition that I met Jill's husband yesterday. But as a matter of fact, you don't. At best, you derive contextual effects from the proposition that I met someone who I *believed* to be Jill's husband. Most probably, the principal contextual effect you derive is that I mistakenly believe Jill to be married. In other words, my utterance turns out to be relevant to you in ways in which I did not intend: it achieves non-intended relevance. I suspect that in many cases, perhaps even most, an interpreter faced with a presupposing utterance whose presupposition she rejects will derive some unintended relevance from it, because the utterance provides information about the beliefs of the speaker.⁸ The situation is

8. Given the possibility of unintended relevance, we can imagine cases where a speaker intentionally produces a presupposing sentence, knowing that the interpreter will reject the

similar to cases discussed by Sperber and Wilson (1985: 121) where a hearer makes inferences from the fact that an utterance with a particular content was made, rather than from the content itself.

We might thus refine the proposed characterization of presupposition thus: The presuppositions of an utterance are the propositions which the addressee must accept in order for the utterance to be relevant for her in the way intended by the speaker.

We have now seen one way in which a proposition may be a relevance requirement for an utterance: it must be part of the context relative to which the utterance is interpreted in order for the utterance to be relevant in the way intended by the speaker. If we assume that an interpreter will include in a context only propositions which she accepts, then any propositions so required must be accepted.⁹

There is a second kind of consideration which may force an addressee to accept a proposition if she is to find an utterance relevant, and which may be the source of some presuppositional intuitions. This consideration stems from the principle of relevance itself, so we must begin by taking a closer look at the formulation of this principle.¹⁰

(4) *Communicative Principle of Relevance*

Every utterance conveys a presumption of its own optimal relevance.

(5) *Optimal Relevance*

An utterance is optimally relevant to an audience iff:

- a. It produces adequate contextual effects to be worth the audience's processing effort.
- b. It is the most relevant utterance, compatible with the communicator's abilities and preferences, for the production of those contextual effects.

What is crucial here is clause (b) of the definition of optimal relevance. Let us look at its effects in the interpretation of an utterance of the following sentence:

presupposition but knowing also that she will find it relevant that the speaker apparently believes the presupposition. This is a typical kind of case of exploiting the processes of interpretation to get someone to acquire a belief in a less-than-transparent way.

9. Sperber and Wilson require that propositions in the context be *manifest* to the addressee, where a proposition is manifest to an individual just in case she is capable of accepting its representation as true or probably true. I am not sure that this is a strong enough notion. However, what this notion shares with the notion of acceptance is that neither requires the propositions in question to be ones which the addressee believes true, but only propositions which she is willing to treat as true (at least for the purposes of the discourse) once they are raised for consideration.

10. The following definitions are taken from the postface to the second edition of *Relevance* (1995). I have modified them slightly to eliminate some terminology not introduced here.

(6) Jane knows that Louise is in love.

An interpreter faced with this utterance might well proceed in the following way. She extracts from the utterance the proposition that Jane knows that Louise is in love, and proceeds to derive inferences – contextual effects – from it. One of those inferences may well be the proposition that Louise is in love – a legitimate inference from the proposition expressed – and this proposition may in turn give rise to further contextual effects. But the interpreter will also look to derive further contextual effects from the proposition expressed by the speaker: perhaps that Jane will be displeased, or that the speaker thinks that Jane is a busybody. Now, if the speaker considers that the relevance of her utterance of (6) resides in the (subordinate) proposition that Louise is in love, and contextual effects derivable from it, then she should choose a form from which the interpreter will infer only this proposition and its further contextual effects (or at least as little as possible beyond this). Otherwise, she imposes on the interpreter a good deal of worthless processing effort. If the principal contextual effects of an utterance of (6) are expected to arise from the proposition that Louise is in love, then the utterance used is not the most relevant utterance for the production of these effects. But, by the Principle of Relevance, the very utterance of (6) conveys a presumption that it *is* optimally relevant. So the hearer of (6) would, under normal circumstances, assume that the proposition that Louise is in love is *not* the source of the principal contextual effects she is intended to derive. This assumption will lead the hearer to treat this proposition as “background” or “non-main-point,” and to foreground the maximal proposition expressed, and contextual effects derivable from it.

This feature of the principle of relevance leads to the expectation that in general, the strongest proposition communicated will be considered the main point of an utterance, that is, the primary source of its relevance. Non-maximal entailments of this proposition would generally be treated as secondary, or backgrounded. This seems plausible, at least for simple sentence structures. But it is also to be expected that various pragmatic considerations may over-ride this expectation. One such case will be discussed below, where we consider cases in which a presupposition acquires main point status.¹¹

Now, note further that if the addressee of (6) is not prepared to accept the backgrounded proposition, then she also cannot accept the proposition which *is* supposed to carry the relevance of the utterance, i.e. the maximal entailment. So an utterance of (6) will have (the intended) relevance for an addressee only if she accepts the backgrounded proposition. Roughly speaking, then, I suggest that some presuppositions arise when propositions inferable from an utterance are, by virtue of

11. In addition, there may be conventional means for indicating that a non-maximal entailment is the primary bearer of relevance.

the assumption of relevance, treated as background, but are such that their acceptance is a prerequisite for the acceptance of the maximal entailment.¹²

I have framed this suggestion somewhat tentatively, as it is certainly in need of refinement. The logic of the discussion so far would lead to the conclusion that all (obvious) non-maximal entailments of the content of an utterance should have presuppositional status, and this is clearly incorrect. For example, from an utterance of (7) a hearer can easily infer (8) and (9):

(7) Jane washed the windows.

(8) Someone washed the windows.

(9) Jane washed something.

Moreover, if the hearer were unwilling to accept (8) or (9), she would also be unwilling to accept the content of (7) itself. However, (7) does not intuitively presuppose either of these entailments.¹³ Similarly, utterances of conjunctions do not intuitively presuppose their conjuncts. So, if the account of the presuppositionality of sentence (6) above is on the right track, then some way is needed of differentiating between the inference from a *know* sentence to its complement, and these other non-presupposition-inducing inferences.

In my discussion of this case, talk of identifying the locus of relevance led naturally into talk about main-point and non-main-point content. Abbott 2000 argues that presuppositions are nonasserted propositions conveyed by the utterance, propositions which are of necessity conveyed but which are not intended by the speaker to be part of the main point. Presuppositions arise, she argues, by virtue of two facts: First, that there is a preference for utterances to have, roughly, a single “main point”; and second, that the expression of any thought will involve expression of many atomic propositions. As a consequence, any utterance involves the expression of propositions which are not part of the main point. My suggestion here is very close to her position. However, I derive the requirement for a single main point from general considerations of relevance. And I suggest that this is only one of

12. It is instructive to compare the *know* case with, for example, *believe*. Why does an utterance of:

(i) Jane believes that Louise is in love

not require that the addressee accept the content of the complement clause in order to achieve relevance? The answer is that the interpreter is not licensed to derive the content of the complement clause as an inference from (i), or to derive further contextual effects from this content. So there is no inference to this content to be backgrounded. (Thanks to Chris Gauker, p.c., for insisting on the need for a way to distinguish these two cases.)

13. As an anonymous OUP reader points out, focus structure might be taken to give rise to a presuppositional relation between an utterance of (7) and one or more of the entailments in (8)-(9). Indeed, this is the position taken in Wilson and Sperber 1979.

the ways in which a proposition may acquire the status of a relevance requirement, and hence of a presupposition.

I opened this section with a formulation of my thesis: that the presuppositions of an utterance are the propositions which the addressee must accept in order for the utterance to be relevant for her. (Recall that to accept a proposition is not necessarily to believe it, but only to be treat it as true for current purposes.¹⁴) Given the possibility of non-intended relevance, I added that these are propositions which the addressee must accept in order for the utterance to be relevant in the way intended by the speaker. I have made here two suggestions as to why acceptance of a particular proposition may be required in order for an utterance to achieve relevance for an addressee. I reiterate that it is to be expected that there are multiple sources of relevance requirements. The explication of particular cases of presupposition will require an explanation of how and why utterances of the presupposing sentence require acceptance of the presupposition in order to achieve relevance. This work remains to be done. But I hope that the thesis is clear enough for me to move to the next step: to show that some of the standard properties of presuppositions follow straightforwardly if we conceive of presuppositions as relevance requirements.

4.2. Initial consequences of the thesis

4.2.1. Backgrounding

The proposed characterization of presuppositions explains the intuition that presuppositions are “backgrounded,” or “non-main-point.” Indeed, it points the way towards a clarification of that notion. To be backgrounded is to be a relevance requirement: either a component of the intended interpretative context, or a communicated proposition which is not the locus of relevance.

Sometimes, a relevance requirement – a presupposition – can have main point status, as in the familiar example:¹⁵

- (10) Ann: The new guy is very attractive.
Bud: Yes, and his wife is lovely too.

In the imagined context, the main point of Bud’s utterance is to inform Ann that the new guy has a wife. Nonetheless, we have the intuition that this proposition is a presupposition, and that Bud, by conveying the information in this way, is engaging in indirection. And of course he is. For he has produced an utterance which, by the

14. This becomes particularly important in complex cases involving pretense on the part of speaker or hearer or both.

15. Thanks to my student, Jessi Berkelhammer, for raising the issue of these cases.

principle of relevance, *should* have as its main point the proposition that the guy's wife is lovely. But it happens to be the case that another of the communicated propositions, namely that the new guy has a wife, is more relevant for Ann than the fact that the wife is lovely. And moreover, in the situation envisaged, Ann will recognize that Bud believes that this proposition is more relevant for her. Hence, she will take his main point to be that the new guy has a wife.¹⁶ But identification of this proposition as the intended main point is a secondary process, which is in some sense dependent on the primary, automatic process of interpretation. In this process, the proposition that the new guy has a wife functions as a relevance requirement.

4.2.2. *Noncontroversiality*

Under the proposed thesis, presuppositions are not required to have common ground status, to be presumed to be shared information at the time of utterance. However, the thesis provides a straightforward explanation of why there would be a tendency on the part of speakers to produce utterances whose presuppositions are in fact shared information, or are at least highly non-controversial: Speakers want their utterances to be relevant to their addressees. An utterance judged non-relevant by an addressee is in danger of being ignored. At the very least, the utterance will not have the intended effect on the cognitive state of the addressee, and may well result in a derailment of the speaker's communicative intentions. Production of an utterance whose presuppositions are not accepted by the addressee inevitably leads to a judgment of non-relevance; so this is something which a speaker will try to avoid.

The consequences of non-relevance may be worse for the speaker than the consequences of simply being wrong. Suppose that I tell you:

(11) Classes have been cancelled.

Presumably, I would say this in order to convey the information to you, and I do so because I think it is relevant for you in one way or another. It is probably also the case that it serves my interests in some way to get this information to you. Now, suppose you think that I am wrong. The consequence is likely to be a conversation about whether or not classes have been cancelled. Whatever the outcome, my communicative intention has in some sense been realized: we have communicated on the topic of the cancellation of classes.

Now suppose that I tell you:

16. Note that Bud could produce his utterance quite innocently, not imagining that Ann has any interest in the new guy. Then his intended main point – what he believes to constitute the locus of relevance of his utterance – is the strongest proposition expressed. Ann may nonetheless pay more attention to the existential entailment, by virtue of her own interests.

(12) I'm glad that classes have been cancelled.

In this case, what I intend to communicate is something about my mental state. Presumably, it is from this information that I intend you to derive contextual effects. Now, suppose again that you believe that classes have not been cancelled. It is again likely that what will ensue is a conversation about whether or not classes have been cancelled. But in this case, my conversational aims will have gone awry: we are not likely to be talking about my feelings concerning the cancellation of classes any more.

As far as presuppositionality is concerned, then, the safest choice for a speaker hoping to avoid non-relevance is to produce utterances whose presuppositions are clearly already accepted by the addressee. But it is also safe to produce utterances whose presuppositions can be assumed to be non-controversial for the addressee. On the other hand, to produce an utterance whose presuppositions are controversial is to invite a judgment of non-relevance.

To reiterate the original point: although the current account predicts that utterance presuppositions should be noncontroversial, it does not predict that presuppositions are required to be common ground, or to be believed by the speaker to be so. Thus, under the view presented here, cases of informative presuppositions, which on the Stalnakerian account must be treated by accommodation, raise no special issues.

In example (10) above, we saw a case where a relevance requirement is also the intended main point of the utterance. This, I suggested, involves a secondary, pragmatically driven, re-evaluation of the intended relevance of the utterance. A further complication arises where a main-point relevance requirement is also controversial, as in an example from Von Stechow 2000, where a daughter informs her father that she is engaged by saying:

(13) Oh Dad, I forgot to tell you that my fiancé and I are moving to Seattle next week.

The speaker here has produced an utterance whose relevance requires the addressee to accept (without discussion) the proposition that she has a fiancé. This is not something that, under the circumstances, can be expected to go through without challenge. But of course, the speaker in this case would not normally expect the utterance to go through without challenge. The choice to convey such momentous information as a presupposition has various stylistic effects. But the presuppositional status of the information is still attributable to the fact that the presumption of relevance requires that information to be given non-main-point status, and thus to be accepted by the addressee in order to establish the relevance of the utterance as a whole.

The proposed analysis allows for a nice distinction between ordinary cases of informative presupposition, and cases that have the feel of exploitation (in the

Gricean sense) of a conversational principle. In the ordinary cases, such as my telling a colleague:

(14) I can't come to the meeting. I have to take my cat to the vet.

new information is introduced as a presupposition, i.e. as a relevance requirement. But in these cases, the intended status of this information matches its ostensible status: it not only appears to be (merely) relevance establishing, but is intended to be so. In examples (10) and (13), however, the intended status is different from the ostensible status: in these cases, what appears to be merely relevance establishing information is intended as a main point.

4.2.3. *Defeasibility*

Another well known property of presuppositions is that they are often (although not always) defeasible.¹⁷ There are three fairly familiar sorts of situations in which this occurs.

- When presuppositions are explicitly denied
Example: The King of France isn't bald — there *is* no King of France!
- When a (normally) presupposing clause is embedded in certain linguistic environments.¹⁸
Example: Either there is no king of France, or the king of France is bald.
- When the normal presupposition of a clause or sentence is incompatible with conversational implicatures or other contextual assumptions.
Example: [Context: speaker and hearer both know that speaker does not know Maud's whereabouts, but knows that Harold is looking for her.]
If Harold discovers that Maud is in New York, he'll be furious.

All of these types of cancellation are compatible with the view of presuppositions as relevance requirements. The basic idea in each case would be that the relevance of the utterance as a whole is incompatible with the potential presupposition. In the first case, the explicit denial makes clear that the addressee is not to assume a context containing the proposition that there is a king of France. In the second case, the addressee cannot assume that the intended context contains the proposition that there is a king of France, as relative to such a context, the disjunction would be equivalent

17. See Simons 2000 for an argument that whether or not presuppositions are defeasible depends on whether they are conversationally or conventionally generated.

18. I return to this case in section 5 below.

to its second disjunct, and there would thus be no justification for the additional processing effort involved in processing the more complex utterance. In the third case, extra-linguistic factors – the addressee’s knowledge about the speaker’s background knowledge and about the goals of the discourse – over-ride considerations of optimizing relevance. (And clearly the utterance is adequately relevant evaluated in the context which is available.)

In addition to these three familiar cases of cancellation, there is an additional type which has received somewhat less attention, and which is in fact predicted by the proposed view. Presuppositions may fail to arise in situations in which the relevance of the utterance does *not* depend on the assumption of the expected presupposition. Consider the following case: A researcher is conducting a study on the effects of quitting smoking. She needs subjects who have undergone this change of state. A subject comes to take part in the study. But while the criteria for participation are being explained, the subject turns to the researcher and says: “I’m sorry, I’m no use to you for this study. I haven’t stopped smoking.” The utterance, in these circumstances is, I think, neutral as to whether the speaker has never smoked or is an unrepentant smoker. The situation ensures the relevance of the utterance in either case.

4.2.4. *Variety of strength of presuppositions*

Many authors, probably beginning with Stalnaker (1974:205), have observed that presuppositionality seems to come in different degrees. As Stalnaker observes:

Sometimes no sense at all can be made of a statement unless one assumes that the speaker is making a certain presupposition. In other cases, it is mildly suggested by a speech act that the speaker is taking a certain assumption for granted, but the suggestion is easily defeated by countervailing evidence.

Stalnaker claims for his pragmatic account the advantage that it predicts such variation. The pragmatic account suggested here has the same advantage. For an utterance can fail to achieve relevance for a variety of reasons, and to different degrees. Some types of relevance failure will be worse than others. The worse the consequences of the relevance failure, the stronger will be the assumption on the part of the interpreter that the speaker intends her to assume whatever proposition is required to avoid that failure.

Probably the most egregious failure of relevance occurs when an utterance fails to have propositional content, or has propositional content which is not truth-evaluable, as in the case of reference failure. Consider utterances of (15) or (16):

- (15) Do you like the big red one? [Said when nothing is indicated and no red object is visible.]
- (16) If France’s current king abdicates, the French will be in disarray.

There is a variety of views as to the consequences of reference failure, but whichever of these views one adopts, it is clear that something goes very badly wrong in such utterances. The absence of a referent for the relevant NPs leads to a radical failure of relevance, a failure so bad that there is really nothing – no contextual effect – that the addressee can derive. (The addressee might find the utterance relevant in ways not intended by the speaker, in the way discussed above.) Because the consequences of relevance failure in this case are so severe, there is a robust assumption that one is expected to assume the existence of a referent.

Now, compare this case with the following example, due to Van der Sandt 1992:

- (17) If someone at the conference solved the problem, it was Smith who solved it.¹⁹

An utterance of this sentence might be understood presuppositionally, i.e. an interpreter might infer that she is supposed to assume that the problem has been solved. (The antecedent then reflects uncertainty as to whether the problem was solved by someone at the conference, or someone else.) But this is only a weak inference: a non-presuppositional interpretation is also available. By adopting the presuppositional interpretation, the addressee might gain additional contextual effects deducible from the new assumption that the problem has been solved. However, the non-presuppositional reading is also likely to be adequately relevant. On any actual occasion of utterance, salient contextual assumptions might well lead an interpreter to prefer one interpretation over the other. (Intonation also may serve to disambiguate: focal stress on *conference* tends to favor the presuppositional reading.) But considerations of relevance do not rule out the non-presuppositional reading, and thus the presupposition is relatively weak.

4.3. Further consequences

4.3.1. *Dedicated triggers*

So far, I have looked at properties of presupposition that are accounted for to some degree in other accounts of presupposition, in particular in the Stalnakerian account. Here, I want to consider a question which, I believe, the Stalnakerian account does not answer. The question arises with respect to what I will call *dedicated presupposition triggers*: lexical items whose sole function appears to be the

19. The crucial property of this example is its logical structure: the antecedent entails the potential presupposition of the consequent, but not vice versa. Such examples contrast with conditionals in which there is mutual entailment between the antecedent and the potential presupposition of the consequent, as in (i). Such sentences have no presuppositional reading:

- (i) If someone solved the problem, it was Smith who solved it.

triggering of a presupposition. These items can be omitted without affecting the assertoric content of the utterance. Examples of such triggers are the words *even*, *yet*, *again*, and *too*. Triggers of this kind differ from, say, factive or change-of-state verbs. In the latter cases, the presupposition is nondetachable from the content expressed by the verbs. For example, any close paraphrase of the presupposition-inducing (18)a., such as the sentences given in (18)b., bears the same presupposition, given in (18)c.

- (18) a. Jane didn't leave the house.
b. Jane didn't exit / go out of / depart from / quit the house.
c. Jane was in the house immediately before the reference time.

A speaker who wishes to express the content of (18)a. really cannot do so without triggering the presupposition, unless she takes some additional steps to suppress or cancel it. So in these cases, the question of why the speaker has used a presupposition inducing expression does not arise. But in the case of sentences like (19)-(21), the presupposition inducing expression clearly could have been omitted without (on standard views) changing the content of what has been said.

- (19) Even Bush has admitted that global warming is real.
(20) Jane has failed her driver's test again.
(21) Harold failed his driver's test too.

The question then arises: Why should a speaker bother to include a presupposition trigger? The Stalnakerian account gives an answer to this question for the (supposedly "exploitative") cases where the presupposition is not in fact common ground. In these cases, according to that account, the presupposition is accommodated, and becomes common ground. So inclusion of the presupposition trigger allows the speaker to convey more information. But of course a speaker can include a presupposition trigger also when the presupposition *is* in the common ground; indeed, this is supposed to be the standard case. In this case, then, what function do presupposition triggers serve? Why should a speaker include them when the presupposition is already in the common ground? For then, presumably, the triggered presupposition will not provide the addressee with any new information.²⁰

On the proposal being made here, the answer is straightforward: the presupposition trigger is a conventional marker of a proposition which the hearer is supposed to take as contributing to the relevance of the utterance. The relative strength and undefeasibility of presuppositions triggered in this way is also to be

20. Sperber and Wilson 1986, in footnote 21 of chapter 4, make a similar point, noting that the Stalnakerian framework provides no reason to expect the occurrence of conventional markers of presupposition. They also suggest that Blakemore's work (see below) offers a promising treatment of the phenomenon.

expected on this account. In the case of cancellation, the addressee infers that the speaker cannot after all intend her to presuppose the potential presupposition, given a conflict between the presupposition and other contextual or discourse information. But when a speaker uses a dedicated presupposition trigger, she thereby makes her intentions explicit.

This treatment of dedicated presupposition triggers is a natural extension of the proposals made in Blakemore 1987. Blakemore considers the function of a variety of expressions which have standardly been thought *not* to contribute to truth conditional content: expressions like *therefore*, *so*, *moreover*, and *after all*. She argues that the role of these expressions is to guide interpretation by indicating the intended inferential relations between two or more propositions expressed in a discourse. But her general claim is that the semantic contribution of certain expressions is to constrain, in one way or another, the contexts (in the relevance theoretic sense) in which utterances are interpreted. Blakemore mentions the possibility that standard presuppositional phenomena might be treated along these lines, but does not pursue the idea. My argument here is that Blakemore is right: that the function of dedicated presupposition triggers is to indicate that the speaker intends the (truth conditional content of) her utterance to be interpreted relative to a context which contains the “presupposition.” By indicating this intention, the speaker indicates that she believes that interpretation of the utterance in such a context will guarantee its relevance for the addressee.

Let me try to clarify this claim with respect to *even*. Consider sentence (19) above. My claim is that the speaker of this sentence asserts that Bush has admitted that global warming is real, but also indicates to the addressee that the reason this is of current relevance is that Bush is a particularly unlikely person to do so. To support this idea, consider the differences between situations in which one might utter (19) and in which one might utter the sentence without *even*, given in (22).

(22) Bush has admitted that global warming is real.

Suppose that Bush has just made his admission during a public appearance. To tell you about it, I would most naturally (I think) say (22). Sentence (19) would be odd. In the situation just described, Bush’s admission is relevant because it is brand new information. (Presumably, it is only relevant to people who care about Bush’s environmental policy, but let’s assume that we have such an audience.) The Stalnakerian common ground story doesn’t provide any explanation for why (19) would be somewhat peculiar in the circumstances just described. But the relevance story does. In the situation described, the fact that Bush is a particularly unlikely person to admit the reality of global warming isn’t the primary provider of relevance for the utterance: it’s the fact that he just did it. So the *even* would somehow lead the hearer astray.

On the other hand, suppose some time has passed since Bush's admission, and we are discussing continued obstacles to environmental progress. You mention the fact that there are still global-warming deniers, to which I reply:

- (23) How much longer can they hold out? Even Bush has admitted that global warming is real.

One important point about this case is that *neither* the information that Bush was unlikely to make this admission *nor* the fact that he has done so is supposed to be new information. But the fact that Bush has made this admission is a relevant observation at this point in the conversation in light of the fact that he has been, let's say, one of the staunchest warming-deniers.

This discussion brings out two points: First, that some explanation is needed for the function of presupposition triggers in situations in which the presupposition *is* in the common ground. The common ground view tells us why they are allowed in these circumstances, but not what they *do*. The second point is that the common ground story doesn't tell us why certain presupposition triggers are disallowed in some situations even where the licensing conditions are supposedly met, e.g. when announcing something.

The claim seems equally plausible with respect to examples with *again* and *too*. Consider the following examples, repeated from above:

- (24) Jane has failed her driving test again.
(25) George failed his driving test too.

It seems quite plausible in each case to say that the proposition "invoked" by the presence of the presupposition trigger is what provides the utterance with maximal relevance.²¹ The significance of Jane failing her driving test having failed it before is different – perhaps greater – than the significance of her having failed it without consideration of her prior attempts. (To announce dejectedly, *Jane failed her driving test* is to consider this failure in isolation from other failures; to say (24), on the other hand, is to consider the sequence of failures and to invite conclusions based on the sequence.) The same seems true of the presupposition generated by *too* in (25): George's failure has a different significance in conjunction with (let's say) Jane's, than it would have alone.

21. Clearly, these propositions are calculated, presumably compositionally, on the basis of the content of the trigger plus the rest of the content expressed. One aspect of the semantics of the presupposition trigger must be to trigger a second process of meaning composition whereby the presuppositional proposition is derived.

4.3.2. *A broad notion of presupposition*

One further consequence of the characterization of presuppositions as relevance requirements is that the notion of presupposition is broadened beyond the range of linguistically triggered presuppositions. Any given utterance may require all kinds of propositions to establish its relevance; and any given sentence will require different propositions to establish its relevance on different occasions of utterance. Consider, for example, an utterance of the sentence:

(26) It's 8:01.

For an utterance of this sentence to be relevant, something must follow from it. On one occasion of use, the relevance establisher might be the proposition that the bus comes at 8:03 (and so we should hurry). On another, the relevance establisher might be the proposition that the meeting was supposed to start at 8:00 (and so we should proceed). And so on. On the account proposed here, all of these relevance establishers would be considered presuppositions, on a par with the linguistically triggered presuppositions considered above. This may seem a defect of the account, if our goal is to give an account of the phenomenon of linguistically triggered presupposition.

However, there is no particular reason to decide *a priori* that linguistically triggered presupposition is a distinct phenomenon from the broader notion conjured by the ordinary use of the term. On the view presented here, linguistically triggered presupposition would be a sub-case of the broader phenomenon. If there is in fact some common property shared by the class of cases normally included under the title of presupposition, a property not shared by other cases, then it will be possible to delineate this class in some way. The obvious candidate is, of course, the linguistic triggering itself.

This point, like others noted above, does not distinguish the proposal made here from the Stalnakerian treatment of presupposition. For Stalnaker, presuppositions are properties of speakers, not of sentences.²² A speaker's utterances may reveal her presuppositions. But given Stalnaker's assumptions, I believe he would agree that a speaker who utters *It's 8:01* with the intention of getting the chairperson to start the meeting is presupposing (i.e. taking it to be part of the common ground) that the meeting was supposed to start at 8:00.

22. Indeed, Stalnaker contends that no contentful notion of sentence presupposition can be defined. For him, sentence presuppositions are artifacts of the interaction of general conversational principles and properties of particular sentences. See, for example, comments in the introduction to *Context and Content* (Stalnaker 1999), p.8.

5. Projection

One very daunting problem for any fully pragmatic account of presupposition is the issue of presupposition projection. Various researchers, particularly those working in dynamic semantic frameworks, have shown that projection behavior is highly complex, in particular where presuppositions involve quantification or interaction with modals.²³ Researchers in those frameworks have also been very successful in providing formally elegant and descriptively adequate algorithmic accounts of projection. This work certainly makes a convincing case that there is an algorithmic component to the behavior of projection. However, what this work does not do is explain why particular presuppositions attach to particular atomic propositions or sentences in the first place.

On the algorithmic view of presupposition projection, it is claimed that presuppositions attach to atomic clauses and are then passed up to complex sentences which embed them through some mechanism of projection. To fully incorporate projection facts into the framework suggested here, one would have to argue that the appearance of projection of presuppositions from lower to higher clauses is in fact the result of a *sharing* of presuppositions among “families” of sentences. A family of sentences shares a presupposition just in case that presupposition is required to establish the relevance of utterances of any member of the family.

Can it be demonstrated that sentences share presuppositions in this way? Some initial support for the idea comes from an observation due to McLaughlin 2001. What McLaughlin observes is that very standard cases of relevance implicature sometimes show behavior analogous to the projection behavior of standard cases of presupposition. Consider first the following dialogue:

- (27) Ann: Are we going on a picnic?
 Bud: It’s raining.

Recall from section 1 that Bud's utterance introduces both an implicated assumption and an implicated conclusion. The implicated assumption is that there is a connection between rain and picnics: probably, that if it rains, one does not picnic. The implicated conclusion is that there will be no picnic.

Now, consider the following similar discourse:

- (28) Ann: Are we going on a picnic?
 Bud: It’s not raining.

For Bud’s response to be relevant, Ann must still attribute to Bud the assumption that there is some connection between rain and picnics. With the right intonational clues

23. There is an enormous literature in this area. For some of the foundational proposals, see Heim 1982, Van der Sandt 1992, Zeevat 1992, Beaver 1995.

from Bud, Ann might well retrieve a slightly strengthened version of the same implicated assumption: that if it rains, one doesn't picnic, but if it doesn't rain, one can picnic. Then the implicated conclusion would be along the lines of: There's nothing to stop us from going on a picnic.

Now, suppose Bud had replied with either (29) or (30):

- (29) It might be raining.
- (30) Is it raining?

Again, these responses would be in compliance with Relation only if Bud assumed a connection between rain and picnics, and assumed that Ann could work out that he did. The same would seem to be true of the following conditional response:

- (31) If it rains, maybe we'll go to the movies.

In none of these cases, I think, would we want to say that the implicature projects from the embedded clause. Rather, we would want to say that each utterance gives rise to the same implicated assumption: one and the same background assumption serves in each case to relate Ann's question to Bud's indirect response. Of course, on my view, this implicated premise, which is required to establish the relevance of the utterance, simply is a presupposition. McLaughlin's observation thus provides at least *prima facie* support for the claim that, given a particular conversational context, families of sentences might require the same background assumptions in order to satisfy the requirements of relevance.

6. Conclusion

In this initial presentation, I have touted what I see as the potential strengths of this proposed account of the phenomenon of presupposition. But what I have offered here is no more than a sketch of a full account. The idea of propositions serving as relevance establishers must be given more substance – enough substance that it will be possible to determine the predictions made by the account about the expected presuppositions of particular utterances.²⁴ This is clearly a difficult task. It requires

24. Here again, I am not much worse off than the competition. Stalnaker has never attempted to construct a theory of presupposition capable of making predictions about the presuppositions of particular sentences or utterances. In the various frameworks of dynamic semantics which have provided formal accounts of presupposition based (in some cases loosely) on Stalnaker's framework, precise predictions are made about the presuppositions of complex sentences, based on the assumption that certain atomic constituent clauses have a given presupposition. But these frameworks do not offer any predictions about which presuppositions will be associated with atomic sentences, or why. In contrast, those who

at the very least some more rigorous understanding of the notion of relevance itself, and some quantitative measure of relevance. Relevance Theory provides some machinery to begin to address this task. Computational approaches to the representation of inference in interpretation also seem promising frameworks in which to pursue these questions. The questions are undoubtedly hard. But they may nonetheless be the right ones to ask.

References

- Abbott, Barbara 2000: Presuppositions as nonassertions. *Journal of Pragmatics* 32: 1419-1437.
- Atlas, Jay D. and Levinson, Stephen C. 1981: It-clefts, informativeness and logical form: radical pragmatics (revised standard version). In P. Cole, *Radical Pragmatics*. New York: Academic Press.
- Beaver, David 1995: *Presupposition and Assertion in Dynamic Semantics*. PhD. dissertation, University of Edinburgh.
- Blakemore, Diane 1987: *Semantic Constraints on Relevance*. New York: Blackwell.
- Burton-Roberts, Noel 1989: *The limits to debate: A revised theory of semantic presuppositions*. New York: Cambridge University Press.
- Grice, Paul 1989: *Studies in the Way of Words*. Cambridge, MA.: Harvard University Press.
- Heim, Irene 1983: On the projection problem for presuppositions. *WCCFL* 2, pp. 114-126. Reprinted in Steven Davis (ed.) 1991: *Pragmatics: A Reader*. New York: Oxford University Press.
- Kohlhase, Michael and Mandy Simons 2002: Interpreting negatives in discourse. Ms., Carnegie Mellon University.
- McLaughlin, Daniel 2001: Presuppositions as conversational implicatures. Ms., Carnegie Mellon University.
- Simons, Mandy 2000: On the conversational basis of some presuppositions. *SALT* 11.
- Sperber, Dan and Wilson, Deidre 1986: *Relevance: Communication and Cognition*. Cambridge, MA: Blackwell. Second Edition published 1995.
- Sperber, Dan and Wilson, Deidre 1995: Postface to the second edition of *Relevance*.
- Stalnaker, Robert 1974: Pragmatic Presuppositions. In Milton K. Munitz and Peter K. Unger (eds.), *Semantics and Philosophy*. New York: New York University Press. Reprinted in Stalnaker 1999.

attempt to explain presupposition in terms of conversational implicature (see, for example, Kempson 1975, Wilson 1975, Atlas and Levinson 1981) do attempt such predictions, but generally are able to deal with only a limited set of cases, and do not deal with complex projection examples. Clearly, it is an enormously difficult task to accomplish both descriptive and explanatory adequacy through the full range of cases.

- Stalnaker, Robert 1984: *Inquiry*. Cambridge, MA: MIT Press.
- Stalnaker, Robert 1998: On the representation of context. *Journal of Logic, Language and Information* 7. Reprinted in Stalnaker 1999.
- Stalnaker, Robert 1999: *Context and Content*. New York: Oxford University Press.
- Stalnaker, Robert 2002: Common Ground. *Linguistics and Philosophy* 25(5-6), 701-721.
- Strawson, Peter 1956: On referring. In A. Flew (ed.), *Essays in Conceptual Analysis*, London: Macmillan and Company Ltd. Reprinted in A.P. Martinich 1990: *The Philosophy of Language*, New York: Oxford University Press, pp.219-234.
- Van der Sandt, Robert 1992: Presupposition projection as anaphora resolution. *Journal of Semantics* 9: 333-377.
- Wilson, Deidre and Sperber, Dan 1979: Ordered entailments: An alternative to presuppositional theories. In Oh, C.-K. and D. A. Dinneen (eds.) 1979: *Syntax and Semantics* Vol. 11: *Presupposition*, NY: Academic Press.
- Wilson, Deidre and Sperber, Dan 2003: "Relevance Theory." In L. Horn and G. Ward (eds.), *Handbook of Pragmatics*. Oxford: Blackwell.
- Von Stechow, Kai 2000: What is Presupposition Accommodation? Ms., MIT.
- Zeevat, Henk 1992: Presupposition and accommodation in update semantics. *Journal of Semantics* 9: 379-412.