

## GAZDAR AND PRAGMATIC PRESUPPOSITION

Leslie Saxon

In Pragmatics: Implicatures, Presupposition, and Logical Form, Gazdar proposes a solution to the much discussed problem of determining the presuppositions of a complex sentence from the presuppositions of its components. His solution succeeds where the attempts of earlier investigators failed; however it suffers from one serious omission: Gazdar fails to give a definition for presupposition in the simple case. In this paper I provide such a definition, and at the same time show that Gazdar's analysis is capable of accounting for more data than he envisioned.

### 0. Introduction

Gazdar, in Pragmatics: Implicatures, Presupposition, and Logical Form (1979), proposes a solution to the celebrated projection problem of pragmatic presuppositions; that is, to the problem of deriving the presuppositions of complex sentences from their components. A serious omission of his, the failure to give a general definition for presupposition in the simple case, lessens the overall success of his enterprise.

In this paper I do two things: (i) to further our understanding of Gazdar's view of presupposition and to permit us to define it, I discuss Gazdar's comments that pertain to his implicit view and assemble a list of the characteristics that we can infer his 'presuppositions' share; and (ii) in the course of this discussion I show that Gazdar excludes from his account certain phenomena that are taken by many to be (pragmatically) presuppositional. I show that the excluded facts are not inconsistent with Gazdar's results and therefore need not be excluded. I make a proposal for including them in his system and show that this inclusion allows me to arrive at a plausible definition for his notion of presupposition.

The facts in question revolve around a class of words that Kuroda, in 'Concealed anaphora and pragmatic presupposition' (1979), identifies by the fact that they exhibit 'concealed anaphora' (a term defined by him). In section 3 I discuss the presuppositional properties of this class of words. In the first section I briefly describe Gazdar's proposed solution to the projection problem. In that section I leave 'presupposition' undefined, though I illustrate Gazdar's use of the term. My discussion of the term, as Gazdar and others use it, follows, in section 2.

## 1. Gazdar's solution to the projection problem

The great virtue of Gazdar's system is its simplicity. In it, the presuppositions of the components of a complex sentence stand as the derived presuppositions of the complex sentence, except those ruled out by 'context'. What is meant by 'context' will be made clear below.

Gazdar introduces two concepts, potential presupposition and potential implicature. These, together with entailment, are the entities basic to his system. Below I exemplify the three.

1.1. Entailment is the standard logical relation. That is, a sentence a entails another sentence b if whenever a is true b is also true. The (a) sentences below entail the (b) sentences.

- (1) a. Helen regretted leaving Sparta.  
    b. Helen left Sparta.
- (2) a. The wife of Odysseus weaves during the day.  
    b. Odysseus has a wife.
- (3) a. Penelope has stopped weaving.  
    b. Penelope used to weave.

1.2. Potential implicatures, according to Gazdar 1979a (ch. 3), are derived from Gricean conversational maxims.<sup>2</sup> The (a) sentences below potentially implicate the (b) sentences.

- (4) a. Some of the suitors loved Penelope.  
    b. Not all of the suitors loved Penelope.
- (5) a. If Telemachus sees Odysseus he will tell Penelope.  
    b. Speaker doesn't know that Telemachus will see Odysseus.
- (6) a. Penelope tried to deceive the suitors.  
    b. Penelope did not succeed in deceiving the suitors.

1.3. Potential presuppositions are undefined primitives, 'something given to us by the lexicon and syntax' (Gazdar 1979a:124). Examples (7) and (8) are Gazdar's 'paradigm cases of presupposition' (1979a:90). In these, both the (a) and (b) sentences potentially presuppose the (c) sentences.

- (7) a. The king of Buganda is asthmatic.  
    b. The king of Buganda is not asthmatic.  
    c. There is a king of Buganda.
- (8) a. John regrets that he failed.  
    b. John doesn't regret that he failed.  
    c. John failed.

Of (9),

- (9) a. If baldness is hereditary, then all of Jack's children  
      are bald.  
    b. Jack has children.



Gazdar says that we have the 'intuition' that (9a) presupposes (9b), and that this is 'the notion of presupposition relevant to natural language' (1979a:95) (emphasis mine). Similarly, (10a) 'intuitively' (1979a:117) presupposes (10b), and (11a) presupposes (11b).

- (10)a. Harry claims that even Fred likes your wife.
  - b. Fred is the least likely person to like addressee's wife.
- (11)a. The repairman didn't tell me that my camera was suitable for color too.
  - b. Speaker's camera is suitable for something other than color.

In his review of Gazdar 1979a, Stalnaker (1980:903) points out that Gazdar fails to distinguish an intuitive notion of presupposition from the theoretical concept of presupposition. This is evident in the language of Gazdar's presentation of the examples above.

1.4. The actual implicatures and actual presuppositions of a sentence are derived in the following way:

- (12)a. Define the context of the utterance of S. Context includes the entailments of S, and is assumed by Gazdar to be a consistent set of propositions held by the speaker (1979a:130).
  - b. Increment this context by any potential implicatures of S that do not contradict the context. The potential implicatures added to the context are the actual implicatures of S.
  - c. Increment the context arising from (b) by any potential presuppositions of S that are, again, consistent with it. These potential presuppositions become the actual presuppositions of S.

Given a sentence S uttered in context, then, this calculation yields as a result a new context produced by that utterance of S (cf Gazdar 1979a: 129-33).

1.4.1. A word must be said about 'context'. It is obvious from (12) that Gazdar's view of context includes something more than does the standard view, in which context is taken as, for example, the 'common ground' (see (19) below) that speaker and hearer share at any moment. For Gazdar, context is incremented not only by each successive utterance in a monologue or dialogue but also, in smaller stages, by the implicatures and presuppositions of an individual utterance. The notion, evident in (12), of incrementing context by measures not directly reducible to the (succession of) sentence or utterance, as implicature or presupposition are not, is new with Gazdar.

1.5. Let me give a few examples of (12) in operation. Consider the dialogue in (13).

- (13) Speaker A: (a) I made a bet with Kate that some of my class would come on Friday, despite the heat.  
(b) I was a little afraid, though, that no one would show up.  
(c) To my surprise they all came.

Speaker B: (d) So some did show up, and you won the bet.

(13d) potentially implicates that not all of the class showed up (cf (4)). The context of (13d), specifically (13c), entails that all of the class showed up. The potential implicature of (13d) is thus ruled out by context, and (13d) does not actually implicate that not all of the class showed up.

In (13) an entailment of the larger context of the (d) sentence suspends its potential implicature. In the examples that follow, intra-sentential context, in Gazdar's use of the term 'context', suspends potential implicatures and presuppositions.

Consider (14).

- (14) Some of the gods, in fact all of them, took sides.

(entailment suspends potential implicature)

(14) entails that all of the gods took sides. The use of some in (14) potentially implicates that not all of the gods took sides. The entailment and the potential implicature are contradictory, therefore the potential implicature is suspended and (14) does not implicate that not all gods took sides.

(15) below is another example of a sentence whose potential implicature is suspended by an entailment.

- (15) Odysseus failed to bend the bow, but then he didn't even try.

(entailment suspends potential implicature)

Odysseus failed potentially implicates Odysseus tried. The entailment of (15) that he didn't try, however, suspends the implicature.

In (16), a potential presupposition is suspended by an entailment.

- (16) Helen doesn't regret starting the Trojan war, because in fact she didn't start it.

(entailment suspends potential presupposition)

Because-clauses are entailed; therefore (16) entails that Helen didn't start the war. Regret potentially presupposes its complement, therefore (16) potentially presupposes that Helen did start the war. Since the potential presupposition contradicts the entailment of (16), the presupposition is suspended, and (16) does not presuppose that Helen started the war.



(17) If Helen started the Trojan war she regrets it.

(implicature suspends potential presupposition)

(17) potentially implicates that it is possible that Helen didn't start the war, on account of the if-clause. (17) potentially presupposes that Helen started the war, on account of regret. The potential implicature 'survives' to become an actual implicature of the sentence, but the potential presupposition inconsistent with it does not.

(18) is slightly more complicated.

(18) If Helen regrets starting the Trojan war, she'll go into exile, though maybe she didn't start the war after all.

(implicature suspends potential presupposition)

(18) potentially implicates (among other things) that Helen may not have started the war, from an implicature of maybe. (18) potentially presupposes that Helen started the Trojan war, due to regret, which potentially presupposes its complement. The contradictory potential presupposition is suspended, and (18) implicates that Helen may not have started the war.<sup>4</sup>

1.6. With these examples I have illustrated Gazdar's point that, if we assume his notions of potential implicature and potential presupposition, the calculation of the presuppositions of a complex sentence is simple. Notice that the ordering of potential implicatures and presuppositions is critical to the predicting of actual implicatures and presuppositions. Why they should be ordered is an interesting question, one for which Gazdar has no explanation.

The necessity of ordering implicatures and presuppositions is what makes Gazdar's failure to define potential presuppositions explicitly a major flaw. Without the definition, the possibility is left open that something which properly should not be called a potential presupposition--but which Gazdar labels 'presupposition' ad hoc--may be improperly suspended by an implicature. Without the definition, (12) is not fully testable as a predictor of linguistic data. Just what does Gazdar imply about his notion of potential presupposition? and what can we make of it? I answer these questions in the next section.

## 2. Gazdar's implicit notion of presupposition

2.1. While Gazdar doesn't define what he means by potential presupposition, several clues to his view are to be found in his book. The quotes from his book that I include in my discussion above of examples (7)-(11) are one sort of indication of his view. More clues come out in his criticism of the definitions of pragmatic presupposition proposed by others. He criticizes, for example, Karttunen and Peters' (1975) definition of pragmatic presupposition, (19),

- (19) Sentence A pragmatically presupposes proposition B iff it is felicitous to utter A in order to increment a common ground C only in case B is already entailed by C.  
(cited in Gazdar 1979a:105)

by claiming that

- (20) ...utterances which have a presupposition that clashes with the context are not INFELICITOUS...; they simply lose the presupposition. Thus (62) presupposes (63), but in a context in which an argument about the truth of (63) has finally persuaded the speaker of the falsity of (63), it will not be presupposed.

(62) So John doesn't regret killing his father.

(63) John killed his father.

(Gazdar 1979a:105)

There are certainly cases of what Karttunen and Peters define as pragmatic presupposition where Gazdar is wrong. Consider the following case, for example.

- (21)\* A: Who started the Trojan war?  
B: Helen started it too.

As Kuroda 1979 argues, too pragmatically presupposes that someone other than X did Y (where in this case X is Helen and Y is start the war). In the exchange shown in (21), the presupposition of too clashes with the context; that is, while the use of too on speaker B's part presupposes that both speakers A and B know someone other than Helen who started the war, A's question (setting up the context for B's reply) presupposes that A doesn't know the identity of anyone who started the war. Contrary to what Gazdar claims in (20), the conflict makes (21) infelicitous, to say the least. The fact that a sentence with too entails its pragmatic presupposition (by definition) is what makes (21) infelicitous.

Implicitly, then, Gazdar excludes from his notion of potential presupposition the sort of pragmatic presupposition too induces. We will see below cases where the exclusion is done more explicitly.

Notice that taking Karttunen and Peters' definition (19) strictly, or equally, the definitions for pragmatic presupposition proposed by Stalnaker 1974, (22),

- (22) A proposition B is a pragmatic presupposition of a speaker in a given context just in case the speaker assumes or believes that B, assumes or believes that his audience assumes or believes that B, and assumes or believes that his audience recognizes that he is making these assumptions or has these beliefs. (cited in Gazdar 1979a:104)

or by Kuroda 1977, (23),

- (23) A sentence P is called a pragmatic presupposition of another sentence if for any context X in which S is felicitous X entails P. (Kuroda 1977:77)

regret cannot be said to pragmatically presuppose its complement. To use Kuroda's terms, because the context of the use of regret does not



always entail the complement of regret (that is, the complement of regret may sometimes contain new information), regret is not said to pragmatically presuppose its complement.<sup>6</sup>

Thus, Gazdar's criticism of Karttunen and Peters' definition (19) of pragmatic presupposition is not valid. He mistakenly applies the term to the presuppositional type associated with, for example, regret sentences, with the result that the distinction between Gazdar's example (62) given in (20) and my example (21) is obscured.

Gazdar makes a second criticism that errs in the same way. He says that:

- (24) [such a definition as K&P's] rules out any possibility of acceptably communicating new information, however trivial, in presuppositional form. Suppose that I am late for a meeting and I know that the persons at this meeting do not know whether I own a car or am coming by public transit. When I arrive I utter (67).

(67) I'm sorry I'm late, my car broke down.

But this is (under [this] definition) ...infelicitous. ...What I should have said, if these definitions are correct, is (68), in which I assert the presupposition before presupposing it.

(68) I'm sorry I'm late, I own a car and my car broke down.

(Gazdar 1979a:106)

Gazdar's first comment in the quotation is quite right. Someone who accepts this sort of definition of pragmatic presupposition would say that (67) indeed did not pragmatically presuppose that the speaker owns a car; rather, it entails it. Plainly, new information can be communicated through the entailments of utterances.

To summarize, it is clear from (20) and (24) that whatever Gazdar's notion of potential presupposition is, it does not encompass the class of objects defined as pragmatic presuppositions by Kuroda, Stalnaker, or Karttunen and Peters.

2.2. Gazdar implicitly excludes from consideration a fairly widely recognized class of presuppositions, as I show above. Gazdar in addition explicitly excludes another class:

- (25) Any [potential] pre-supposition is [by definition?-LAS] liable to cancellation, but it appears that the 'uniqueness presupposition' [of definite descriptions] cannot be cancelled.... The 'uniqueness presupposition' falls outside the scope of the presuppositional machinery developed in this [book]. (Gazdar 1979a:127-28)

As I show in the next section, this class of 'uncancellable presuppositions' includes the presuppositions of too and other anaphoric expressions, and is identical to the class Gazdar implicitly excludes by (20). This is Kuroda's class of type V pragmatic presuppositions (1977:107).

All of these presuppositions are, as Kuroda shows, entailed by the context of the utterance that gives rise to them.<sup>7</sup> I show below that these presuppositions can be accommodated very easily into Gazdar's framework.

2.3. What is Gazdar's implicit notion of presupposition? From his scattered comments we can infer that, for him, potential presuppositions are cancellable. In addition, actual presuppositions may contribute new information to a conversation. They are accessible to our intuitions. Further, 'simple affirmative sentences ...entail most of their presuppositions' (1979a:89; emphasis his).

Nowhere does Gazdar give a definition for potential presuppositions that captures these characteristics; instead he avoids the issue by saying that specific lexical items or syntactic constructions give rise to them.

I show in section 4 that 'uncancellable presuppositions' can be subsumed under Gazdar's theory. This being the case, a definition for potential presupposition becomes easier to formulate. I give the definition in section 4.3.

### 3. Pragmatic presuppositions V

In this section I show that the two sorts of presupposition Gazdar excludes from discussion are identical, the class of items that give rise to 'uncancellable presuppositions' and the class that produce infelicity when they 'clash with context'.

Kuroda discusses this class and shows that their particular presuppositional properties are due to the fact that they contain 'concealed anaphora'. I describe Kuroda's analysis of the phenomenon and show that still and again belong to the class.

3.1. Gazdar uses the following examples to show that the 'uniqueness presupposition' of definite descriptions is not cancellable.

- (26)a.\*The king of France isn't bald, if indeed there is only one.
- b.\*The king of France isn't bald, but there may be several.
- c.\*It is not true that the senator of America is a fascist, there are one hundred of them.

(Gazdar 1979a:127)

As the examples in (27) show, the presupposition associated with too, that someone else besides X did Y, is not cancellable either.

- (27)a.\*Helen cried too, though nobody else cried.<sup>8</sup>
- b.\*Hector died too, though maybe he was the only one to die.
- c.\*Athena lied too, though she was the only one to lie.

We can use the same presuppositions (of the and too) to show that when these presuppositions clash with context, infelicity is produced.



(28)a.\* A: Which American senator is a fascist?

B: The American senator.

b.\* A: Who delivered Gibson and Ozkaragoz's paper in Chicago?

B: The co-author.

(29)a.\* A: Did anybody cry?

B: Helen cried too.

b.\* A: Did anybody die?

B: Hector died too.

These two sets of examples show two variations on the theme of context clash: (28a) and (29a) are infelicitous because the necessary presupposition--of unique reference or 'Z in addition to X'--is not available within the context; (26a) and (27a) are infelicitous because the necessary presupposition is contextually denied.

3.2. Kuroda describes the class that includes too in 'Concealed anaphora and pragmatic presupposition' and in Kuroda 1977 names them 'pragmatic presuppositions V'.<sup>9</sup> I henceforth adopt this name for them.

Kuroda 1979 shows that the pragmatic presuppositions of too, etc. are different from the 'presupposition' of, for example, even, as witness this pair of examples:

(30)\* A: How was the movie?

B: (Sad.) Helen cried too.

(31) A: How was the movie?

B: (Sad.) Even Helen cried.

Assuming that the questioner, A, has no special knowledge about the movie or about anyone's having cried, B's response in (30) is not acceptable.<sup>10</sup> B's response in (31), on the other hand, is quite acceptable, and conveys B's opinion that Helen was unlikely to cry. Kuroda claims that this difference is due to a condition on the use of too that speaker and audience share the knowledge that, for example, a certain someone else besides Helen cried. In other words, the context of the use of too entails that there is a certain someone else besides Helen who cried. Thus, too pragmatically presupposes, by the definition in (23), that there is a certain someone besides Helen who cried.<sup>11</sup> Even has no such pragmatic presupposition V.

Kuroda glosses too as 'in addition to IT', where IT is an abstract definite anaphor, that is, an expression used for that certain something (someone) which speaker and audience have common knowledge of. He associates the pragmatic presupposition of too with the anaphoric properties of the word: what makes an anaphor an anaphor is the fact that it is used as a substitute for the name of something that speaker and audience share knowledge of. Kuroda says, then, that too contains a concealed anaphor. The is similar to too: use of the entails that speaker and audience share knowledge of a particular individual, possibly from among

a set of similar individuals.

The deviance of (26) and (27) can thus be seen to stem from an inconsistency in what the speaker purports to know. Let's consider (27b):

(27)b.\*Hector died too, though maybe he was the only one to die.

The speaker of this sentence, by using too, claims to know that someone in addition to Hector died. Yet, he claims also to be uncertain whether anyone besides Hector died. The sentence, not surprisingly, is incoherent.

If too and the have concealed anaphors, then they have antecedents. Kuroda notes that the antecedent of too need not be part of a previous linguistic context: for it to be part of a previous non-linguistic context is enough. So, if two of us saw Helen crying as Paris took her away, and I later saw Menelaus crying at his loss, I could report to the other person, 'Menelaus cried too'. The same situation holds with the. If there is only one individual that fits a certain epithet, then the can be used without the usual process by which unique reference is fixed. So, we speak of the mother of Helen, the Trojan horse, etc.

3.3. I show below that still and again, like too and the, have pragmatic presuppositions V deriving from concealed anaphora.

Consider the exchange shown in (32) below--a telephone conversation perhaps:

- (32) A: Can I speak with Helen?  
B: She's still out walking the dog.

(32) is very strange, unless contextual information provides another earlier point of time known to both A and B when Helen was out walking the dog. So, the conversation (32) is fine if A had called shortly before and been told that Helen was out walking the dog, or if A knows, and B knows A knows, that Helen habitually walks the dog at that time. Still, like too, pragmatically presupposes that speaker and hearer share knowledge of another thing. In the case of still, it is of another point in time.

To illustrate my point further, let me contrast below a sentence with still and the corresponding sentence without, as answers to a question.

- (33) Can I speak with your wife?  
a. She's still in the shower.  
b. She's in the shower.

Suppose Menelaus' wife got two calls while she was in the shower. Menelaus could use (33b) to reply to the question on either occasion, but (33a) only if he were certain that the same person called both times, that is, that the caller had previous knowledge of her being in the shower.<sup>12</sup> This contrast supports my claim that use of still carries the pragmatic presupposition that there exists a point earlier in time known to both speaker and audience when a situation that now obtains obtained before.



Again behaves in an exactly parallel fashion.<sup>13</sup> Let's substitute again for still in (32) and (33).

- (34) A: Can I speak with Helen?  
B: She's out walking the dog again.

- (35) Can I speak with your wife?  
a. She's in the shower again.  
b. She's in the shower.

Exactly the same comments apply here as applied above. Again pragmatically presupposes that this is not the first time that situation X holds.

Still and again differ from each other in that, while use of again simply entails that this is not the first time for situation X, use of still entails that situation X continues from the time in the past (the antecedent) to the time described by the use of still.

Still and again, like too and the, can have non-linguistic antecedents. Thus, if someone calls for Helen very early in the morning, Menelaus might say to the caller,

- (36) She's still asleep.

It is generally known that people sleep at night, and expected that they might not arise until late in the morning. The antecedent of still in (36) is derivable from the non-linguistic context of its use, not from the linguistic context. Similarly with again in (37).

- (37) Helen has taken off again.

Assuming that Helen has a habit, well-known among Paris' staff, of trying to run away, even a new member of Paris' entourage might report Helen's disappearance to him as (37).

The pragmatic presuppositions V of still and again are also, of course, uncancellable.<sup>14</sup>

- (38) a.\*Penelope still loves her husband, though she never loved him before.  
b.\*Odysseus is still confident that he'll reach home, though up until now he has had no hope.  
c.\*The Trojans are still winning, though they weren't up until now.
- (39) a.\*Paris met Helen today again, for the first time ever.  
b.\*The Spartans sacked Troy again, though they had never done it before.  
c.\*Athena protected Odysseus again, for the first time ever.

3.4. Still and again are not the only words to be added to Kuroda's list of items carrying pragmatic presuppositions V. Bruce Hawkins (personal communication) suggested the following example parallel to (33) and (35)

with the adverb 'back':

- (40) Can I speak with your wife?  
a. She's back in the shower.  
b. She's in the shower.

And, as Benedict duBoulay (personal communication) pointed out, in the following example (as a headline perhaps) more carries a pragmatic presupposition V.

- (41) Four more killed.

3.5. In this section I described some of the properties of the class of presuppositions that Gazdar excludes from his account. In the next section I show that they indeed can be accommodated within his framework.

#### 4. A definition for potential presupposition

Gazdar declines to treat pragmatic presuppositions V and is of the opinion that they fall outside the scope of his work. (See (25).) In this section I show that contrary to Gazdar's expectations a treatment of them entirely compatible with his system is possible, and desirable.

I showed in section 3 that pragmatic presuppositions V are characterized by the fact that they are entailed by the context of their use. I exploit this fact in order to come to a Gazdarian account of them.

Recall from (12) that the entailments of a sentence form part of the context, in Gazdar's rather special use of the term, to which potential implicatures and potential presuppositions are added. This fact gives us an account for all the starred examples in section 3. Let's consider one of these sentences closely.

- (27)a.\*Helen cried too, though nobody else cried.<sup>8</sup>

(entailments are contradictory)

This sentence entails both that someone besides Helen cried (from too) and that nobody else cried (an entailment of the second clause). It is consequently infelicitous. Notice that if too is taken, counterfactually, merely to potentially presuppose what we now recognize as its entailment, (27a) is falsely predicted to be felicitous, with the 'presupposition' of too suspended by the entailment of the second sentence.

We can use the entailment interpretation of pragmatic presuppositions V to predict our judgments, within Gazdar's framework, of the following more complex examples too.

- (42)\*Paris doesn't regret that Helen loves Menelaus too, because, in fact, she doesn't love anyone but Menelaus.

Let me list the propositions associated with (42).



- (43)a. Helen loves someone besides Menelaus. (entailment of too)  
 b. Helen loves Menelaus too. (potential presupposition of regret)  
 c. Helen doesn't love anyone but Menelaus. (entailment of because)

Because (43a) and (43c) are inconsistent, (42) is not felicitous. We can see here too that if the entailment of the pragmatic presupposition V associated with too is wrongly thought of as a potential presupposition, a false prediction is made about (42), namely that (42) is felicitous, but doesn't presuppose (43a).

The prediction of the readings of sentences like (44), (46), and (48), given below, requires a slightly more careful treatment of what it means for a pragmatic presupposition to be entailed. Stalnaker's definition (22) will help us out. Let's consider (44) and (45):

(44)\*If Helen likes Paris too, then everything will be fine; but, in fact, I'm not sure whether she likes anyone.

- (45)a. Speaker and audience know that Helen likes someone in addition to Paris. (entailment of too)  
 b. Speaker doesn't know whether Helen likes anyone. (entailment of 'I'm not sure ...')

(44) is infelicitous because of the inconsistency of the parts of (45). (46) and (48) are infelicitous for parallel reasons.

(46)\*If Helen still likes Menelaus, she will go back to Sparta; though I don't know whether she ever liked him.

- (47)a. Speaker and audience know that Helen once liked Menelaus.  
 b. Speaker doesn't know whether Helen once liked Menelaus.

(48)\*If Zeus meets Paris again, he may kill him, though perhaps they've never met.

- (49)a. Speaker and audience know that Zeus has met Paris before.  
 b. Speaker doesn't know whether Zeus has met Paris before.

4.2. All Gazdar's account of presuppositions needs to handle the examples above is the addition of (23), Kuroda's definition of pragmatic presupposition, to his system. This addition represents the recognition that certain presuppositions are entailed by the larger context of the sentences with which the presuppositions are associated.

4.3. With the inclusion of pragmatic presupposition V facts into the body of facts covered by Gazdar's framework, the definition of the notion of weak pragmatic presupposition, suggested by Kuroda 1977, can stand as the definition of potential presupposition, if it is understood that a subset of these, pragmatic presuppositions V (defined by (23)), form a special class of uncancellable presuppositions. Notice that with this addition to the theory, not all potential presuppositions are cancellable.

Let us consider Kuroda's definition of weak pragmatic presupposition.

(50) P is compatible with any context in which S is felicitous.

where P is weak pragmatic presupposition and S is sentence. Kuroda points out two weaknesses of this definition. First, he shows that in cases where S entails P, it is superfluous to require that P be compatible with context. For, if S is felicitous, and S entails P, then P, like S, is compatible with context. In Gazdar's system, however, where not all potential presuppositions become actual presuppositions, that is, where sentences do not entail all their potential presuppositions and where not even all actual presuppositions are entailed by S, this property isn't a weakness. Second, if presuppositions need only be compatible with the context of S, then we would have it that a focused sentence, (51), presupposes, for example, (52).

(51) The king of Sparta loves his son.

(52) The king of Sparta doesn't love his son.

Again, assuming Gazdar's system, this is not a weakness: Since potential presuppositions are suspended by entailments, the potential presupposition (52) will never be an actual presupposition of (51), because (51) entails something--itself--which is inconsistent with (52).

I propose that (50) be adopted as the definition for potential presupposition within Gazdar's system.

The fact that my inclusion of pragmatic presuppositions V facts into Gazdar's area of coverage allows me to propose a definition for his notion of potential presupposition is significant, in view of the fact that it rids the framework of the chief source of its arbitrariness.

## 5. Summary and conclusion

My discussion in section 2 of Gazdar's notion of presupposition and of the disparity between it and others' concepts of pragmatic presupposition has permitted me to show that Gazdar's analysis is capable of accounting for more empirical facts than he foresaw. This greater coverage, in turn, permitted me to provide a means for avoiding the ad hoc-ness that was inherent in Gazdar's system. I accomplished this by suggesting that Kuroda's notion of weak pragmatic presupposition can be 'translated' into Gazdar's framework as potential presupposition.<sup>15</sup>

## Notes

This work was done while I was being supported by Social Sciences and Humanities Research Council of Canada Doctoral Fellowship No. 453-80-0086. Many thanks to Yuki Kuroda and Pat Murray for their advice and patience.

1. The examples I give are parallel to Gazdar's examples of the entities in question.

2. Gazdar concerns himself especially with the maxim of quantity.



In this paper I have very little to say about Gazdar's implicatures, however, Kiefer 1979a, 1979b, and others, have questioned the explanatory value of Gricean conversational maxims, not only in regard to Gazdar's account of presuppositions, but generally. Kiefer's skepticism about the usefulness of Grice's theory in an age which lacks a comprehensive theory of human interaction seems well justified. The reader is referred to Kiefer's work for criticism of Gazdar's use of the maxims, and to Gazdar's reply to Kiefer (Gazdar 1979b).

3. I am simplifying somewhat here. Gazdar distinguishes two sorts of potential implicatures, clausal and scalar. Clausal implicatures are added to the context before scalar implicatures, therefore clausal implicatures may suspend scalar implicatures. Kuroda (class lectures, 1980) noted some problems with scalar implicatures due to the fact that many items that Gazdar calls scalar (eg. quantifiers, numbers) seem to be ambiguous in their use.

4. Notice that (i) presupposes, in Gazdar's terms, that Helen started the war.

(i) If Helen regrets starting the Trojan war, she'll go into exile.

Nothing cancels the potential presupposition due to regret, and it survives, unlike the same potential presupposition in (18).

5. Let me set out what Gazdar seems to mean when he speaks of a 'clash' with context. The hypothetical context of the utterance of (63) that Gazdar proposes in (20) entails that John did not kill his father. Therefore, though (63) is a potential presupposition of (62), it does not become an actual presupposition of (62) because context and the potential presupposition are contradictory. The potential presupposition is thus, in some sense, lost. Cf (13), in which a potential implicature is similarly 'lost'.

6. If Karttunen and Peters or Stalnaker hold, in spite of what their definitions entail, that regret pragmatically presupposes its complement, I believe that they are misapplying their definitions.

7. Gazdar (1979a:107) points out that under definitions (19), (22), and (23), tautologies are presupposed by every sentence. This is a problem.

8. I intend to characterize as impossible only the readings of (27a), etc. in which Helen is in the scope of too. On the readings in which cried is in the scope of too, (27a) is perfectly acceptable.

9. Whereas in Kuroda 1977 the pragmatic presupposition of too is classed as a pragmatic presupposition II, that is, a pragmatic presupposition associated with a declarative non-focused sentence which does not have a denial negation (p. 107), subsequent work (Kuroda 1979), which uncovers the anaphoric nature of too, suggests that Kuroda would reclassify the pragmatic presupposition of too, and of the, again, and still, among pragmatic presuppositions V, pragmatic presuppositions associated with pronominalization.

10. If we suppose that B has just emerged from the theater and is crying

when A asks the question, then B's response in (30) is in these circumstances acceptable. As is explained in the text, it is critical that A know that B cried if the exchange in (30) is to be well-formed.

11. Definition (23) has other applications, in non-declaratives, for example.

12. It has been suggested to me that one could use (33a) also if one were perturbed at the length of one's wife's shower and wished to vent one's feelings on an unsuspecting caller. It seems, then, that for an affective use of (33a) such as this normal pragmatic conditions may be suspended. Similar situations where too is used without its normal pragmatic presupposition are somewhat harder to come by, but perhaps the following is one: Imagine that driver A unwittingly cuts off driver B in heavy traffic. Driver B might yell (i) at driver A, apparently violating the rules for its use.

(i) I love you too, buddy!

I'm not sure that the exceptional uses of (33a) and (i) are precisely parallel, but it is surely uncontroversial that affect can influence performance.

13. I disagree with Kuroda 1979 here, in which again is classed with even, not with too.

14. Still, in some environments, does seem to allow for its pragmatic presupposition V to be cancelled. So, compare (i), with the presupposition cancelled, and (ii), with the presupposition uncanceled.

(i) If John still smokes after all these reports from the FDA, he's foolish. But, then, I don't know whether he ever did smoke.

(ii)\*If John still belongs to the KKK he should be kicked out of the Democratic party, though I don't know whether he ever did belong to the KKK.

The difference seems to depend on the verb to which still is an adjunct--notice that belong is stative, smoke not. There are near minimal pairs that support this hypothesis, if we assume that, for example, drive is non-stative and is driving is stative.

(iii) If he still drives his car to work after all these hurricane warnings, he's foolish. But, in fact, I don't know whether he ever drove.

(iv)\*If he's still driving his car to work after all these hurricane warnings, he's foolish. But, in fact, I don't know whether he ever drove.

I don't understand what is going on here.

15. Since submitting this paper two works, Soames 1979 and Landman 1981, have come to my attention. Soames 1979 deals with many of the same issues Gazdar deals with, and arrives at a very similar result. He discusses in addition the problem that examples like (i), not noted by Gazdar or me, pose for his theory.



(i) If Haldeman is guilty, then Nixon is guilty too.

Landman 1981, working in Gazdar's framework, extends Gazdar's theory slightly and solves the perplexing problem of (i), which Gazdar and I wrongly predict presupposes that someone other than Nixon is guilty. The natural extension of my paper is the squaring of my criticisms of Gazdar with Landman's superb result.

#### References

- Gazdar, Gerald. 1979a. Pragmatics: implicature, presupposition, and logical form. New York: Academic Press.
- Gazdar, Gerald. 1979b. Reply to Kiefer. Lingvisticae Investigationes 3. 375-77.
- Karttunen, Lauri and S. Peters. 1975. Conventional implicature in Montague grammar. Proceedings of the First Annual Meeting of the Berkeley Linguistic Society, 266-78.
- Kiefer, Ferenc. 1979a. What do conversational maxims explain? Lingvisticae Investigationes 3. 57-74.
- Kiefer, Ferenc. 1979b. A brief rejoinder. Lingvisticae Investigationes 3. 379-81.
- Kuroda, S.-Y. 1977. Description of presuppositional phenomena from a nonpresuppositional point of view. Lingvisticae Investigationes 1. 63-162.
- Kuroda, S.-Y. 1979. Concealed anaphora and pragmatic presupposition. Papers in Japanese Linguistics 6. 177-94.
- Landman, Fred. 1981. A note on the projection problem. Linguistic Inquiry 12. 467-77.
- Soames, Scott. 1979. A projection problem for speaker presuppositions. Linguistic Inquiry 10. 623-66.
- Stalnaker, R. C. 1974. Pragmatic presuppositions. Semantics and philosophy, ed. by M.K. Munitz and P.K. Unger, 197-213. New York: New York University Press.
- Stalnaker, R. C. 1980. Review of Gazdar 1979a. Language 56.902-5.