Where have some of the presuppositions gone?∗

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1. Introduction.

Some presuppositions seem to be weaker than others in the sense that they can be more easily neutralized in some contexts. For example some factive verbs, most notably epistemic factives like know, be aware, and discover, are known to shed their factivity fairly easily in contexts such as are found in (1).

(1) a. …if anyone discovers that the method is also wombat-proof, I’d really like to know!

b. Mrs. London is not aware that there have ever been signs erected to stop use of the route…

c. Perhaps God knows that we will never reach the stars….

(The examples in (1) are all naturally occurring ones, discovered by David Beaver with the aid of Google; cf. Beaver 2002, exx. 32, 43, and 51, respectively.) On the other hand some other factives, e.g. regret, matter, and be surprised, do not exhibit the same type of behavior:

(2) a. If any of the students regrets behaving badly, they’ll let us know.

b. It doesn’t matter that the chimpanzees escaped.

c. Was Bill surprised that spinach was included?

Unlike the examples in (1), those in (2) could not be used appropriately in contexts where the speaker was not assuming that the complement clause was true.

Our main concern will be trying to find the cause of this difference. However, before we get to that, we will look more closely at the concept “presupposition” itself, as well as its close neighbor in the linguistic literature, “conventional implicature” (section 2), and also at various ways of getting rid of presuppositions (section 3). In section 4 we will investigate two possible explanations for differences in presupposition triggering – the “lexical alternative” approach of Abusch (2002, 2005), and a suggestion of Ladusaw’s involving detachability of presuppositions. The final section contains concluding remarks.

2. Presuppositions vs. conventional implicatures.

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A number of researchers construe “presupposition” in a way that accords naturally with the everyday use of this word, i.e. as referring to a prior assumption, something which must belong to the common ground in order to make an utterance felicitous (see below). Although this may generally be true of presuppositions, I will not assume that it is definitional. Instead, we will start off with an ostensive characterization, and then fill in some criteria. Let us start by reminding ourselves that the term “presupposition” arose in the modern Anglo-American tradition shortly after Strawson’s (1950) recapitulation of some of Frege’s (1892, 68ff) observations about definite descriptions – namely that when they occur in subject position in a simple sentence, the existence of an entity meeting the description involved would not be asserted in utterances of that sentence but would rather be conveyed in a less direct way, and that this is also true for utterances of the negated sentence. That is, to use Strawson’s example, assertion of either (3a) or (3b) would presuppose the truth of (3c).

(3)  a. The king of France is wise.
    b. The king of France isn’t wise.
    c. There is a king of France.

Thus the existence assumption associated with definite descriptions became a prototypical instance of the category of presuppositions.

In the linguistics literature the discovery by Kiparsky & Kiparsky (1970) of factive predicates like the ones exemplified at the outset was the next breakthrough. The presupposition triggered by predicates like know, regret and be odd that, that their complement clauses are true, shares with the existential presupposition of definite descriptions the property of remaining constant under negation. That is, both (4a) and (4b) presuppose the truth of (4c).

(4)  a. Bill is sorry that it is raining.
    b. Bill isn’t sorry that it is raining.
    c. It is raining.

Factive predicates joined definite descriptions as prototypical instances of presupposition triggers – expressions which give rise to presuppositions.

Please observe that both (3a) and (4a) entail their respective presuppositions. That is, if (3a) is true (3c) must also be true, and similarly with (4a) and (4c).1 That being the case, we will need to be careful to distinguish entailments that are presupposed from what I will call “ordinary, simple entailments”, which are not also presuppositions. An ordinary simple entailment of (3a) might be that the king of France makes good decisions, and for (4a), that Bill feels bad about the rainy situation.

These two types of presupposition (those associated with definite descriptions, and those associated with factive verbs) also have in common remaining constant under a variety of other sentence operators in addition to negation: possibility operators, conditional if, and questioning. Hence Chierchia & McConnell-Ginet’s happy coining of the phrase “the S family”, for the variants of a plain positive indicative sentence (S) obtained by embedding it under such sentence

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1 Strawson proposed that the negative sentence ((3b)) also entails (3c), in the sense that if (3b) is true (3c) must also be true, and that falsity of (3c) means that both (3a) and (3b) are neither true nor false. This was also the view of Frege 1982, modulo choice of examples. We return briefly to this semantic view of presuppositions below.

It should be noted that the sense of “entailment” involved here obviously cannot be the sense found in classical bivalent logic, since the latter supports modus tollens. This new relation has been termed “necessitation” by van Fraassen (1968, 138) and “weak entailment” by Burton-Roberts (1989, 11) and others. I will continue to use the term “entailment” in the text as neutral between classical entailment and weak entailment, since the issue of whether our logic is classically bivalent or not is not relevant for the topic of this paper.
operators (Chierchia & McConnell-Ginet 1990, 24). Examples (5a-c) give additional members of the *The king of France is wise* family, whose parental units are given in (3a, b).

(5)  
a. It’s possible that the king of France is wise.  
b. If the king of France is wise, he’ll pay attention to his advisors.  
c. Is the king of France wise?

As can be seen, each of these shares the presupposition given in (3c) above.

As time went on a number of other instances of this type of presuppositional behavior were discovered. A list of triggers, with their associated presuppositions, is given in Table 1.

Table 1. Some presuppositions and their triggers.

<table>
<thead>
<tr>
<th>Trigger</th>
<th>Presupposition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definite descriptions</td>
<td>Existence (and uniqueness) of denotation</td>
</tr>
<tr>
<td>Factive predicates</td>
<td>Content of complement</td>
</tr>
<tr>
<td>Change of state verbs</td>
<td>Prior condition</td>
</tr>
<tr>
<td>Various lexical items (e.g. <em>bachelor</em>, <em>win</em>)</td>
<td>Backgrounded components (e.g., ADULT, HUMAN, MALE; COMPETE)</td>
</tr>
<tr>
<td>Cleft constructions, other focussing constructions(^2)</td>
<td>Existential generalization of sentence minus focus</td>
</tr>
<tr>
<td>Manner adverbials (e.g. <em>slowly</em>, <em>with a knife</em>)</td>
<td>Whatever is expressed by the rest of the sentence</td>
</tr>
</tbody>
</table>

This list shows a disconcerting lack of uniformity; presuppositions seem to spring up in a wide variety of circumstances.

Meanwhile in the late 1960s Grice gave his famous series of lectures on logic and conversation, in which, among other things, he introduced the category of conventional implicatures: elements of meaning which on the one hand (so he said) are *not* part of the truth conditions of a sentence/utterance (not entailed), but which on the other hand are conveyed conventionally rather than conversationally. (As Kent Bach has pointed out, Grice, like Strawson, was anticipated by Frege 1892, 73f; 1918/19, 295f; cf. Bach 1999, 329f.) These are the bits of meaning conveyed by words like *therefore* and *even*, prototypical triggers for conventional implicature.\(^3\) Thus (6a) (the tongue in cheek example of Grice 1975, 44) conveys the content of (6b), and (7a) will convey something like (7b).

(6)  
a. He is an Englishman; he is, therefore, brave.  
b. His being brave is a consequence of his being an Englishman.

(7)  
a. Even George could solve this problem.  
b. George is the least likely person to be able to solve this problem.

Although negating or questioning sentences with words like these is sometimes awkward, when their containing sentence is embedded under other sentence operators mentioned above these bits of meaning shine through just like the presuppositions of factive verbs and definite descriptions. This is illustrated in (8a, b) and (9a, b).

\(^2\) Ordinarily, *wh* questions would be included with this group. However it is not clear that they satisfy the criterion of entailing their ‘presupposition’ (the existential generalization of the corresponding statement), since, arguably, questions lack a truth value and thus don’t entail anything.

\(^3\) According to the adaptation of Grice’s notion developed in Potts 2005, *therefore* and *even* would not be considered conventional implicature triggers. For the purposes of this paper, I will stick with the more traditional view.
(8)  a. It’s possible that he is an Englishman, and is, therefore, brave.
b. If he is an Englishman, and therefore brave, he’ll leap into the fray.
(9)  a. It’s possible that even George could solve this problem.
b. If even George could solve this problem, we’d better find a more difficult one for the comprehensive exam.
Like the presuppositions scouted above, the conventional implicatures associated with therefore and even are retained in these contexts.
Karttunen’s (1970) category of implicative verbs provides other examples – e.g. manage, which conveys that difficulty is involved, or forget to, which implies a prior intention. These bits of implied meaning behave similarly to Grice’s conventional implicatures in not being entailed by the sentence they occur in,\(^4\) and remaining constant under sentence operators.
A list of conventional implicature triggers is given in Table 2.

Table 2. Some conventional implicatures and their triggers.

<table>
<thead>
<tr>
<th>TRIGGER</th>
<th>CONVENTIONAL IMPLICATURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connectives (e.g. therefore, but)</td>
<td>Various (e.g. cause, contrast)</td>
</tr>
<tr>
<td>Implicative verbs (e.g. manage, forget to)</td>
<td>Various (e.g. effort, intention)</td>
</tr>
<tr>
<td>Iteratives (e.g. still, again, too, anymore)</td>
<td>Prior occurrence</td>
</tr>
<tr>
<td>Honorifics (e.g. tu/vous)</td>
<td>Social status of referent</td>
</tr>
<tr>
<td>Nonrestrictive relatives</td>
<td>Content of clause</td>
</tr>
<tr>
<td>Temporal clauses</td>
<td>Content of clause</td>
</tr>
<tr>
<td>Other (e.g. even)</td>
<td>Various (e.g. unexpectedness)</td>
</tr>
</tbody>
</table>

Once again we have a rather heterogeneous list, although the items here may be felt to have somewhat greater unity than those on the list of presupposition triggers. I have in mind the fact that each of the items seems, in some sense, to be more peripheral to utterances in which it occurs than the presupposition triggers would be peripheral to utterances in which they occur. Of course given the nature of conventional implicatures, that should probably not be too surprising.

We must say a word or two about the special case of only. Consider (10a) below:

(10)  a. Only Muriel voted for Hubert. [= Horn 1969, ex. 4]
b. Muriel voted for Hubert.
c. No one other than Muriel voted for Hubert.
Example (10a) seems to convey both (10b) and (10c). Most people agree that use of (10a) would involve asserting (10c), which would thus be entailed. However, there is an extensive literature debating the status of (10b) – specifically whether it is asserted, (merely) entailed, presupposed, or conventionally implicated. (See Horn 1996 and Atlas 1996 for extensive discussion and references to holders of these various positions, plus a few more.) Note that (10b) does survive the S-family test, as shown in (11a-d).

(11)  a. Not only Muriel voted for Hubert/It’s not true that only Muriel voted for Hubert.
b. It’s possible that only Muriel voted for Hubert.

\(^4\) Here I am following Grice in describing conventional implicatures as not being entailed by the sentences or statements they occur in. However it is probably more correct to see them as entailments that are felt to be less crucial to the truth of the whole sentence – propositions whose falsehood would not lead one to judge that the statement as a whole is false, i.e. propositions which are not “at issue”. See below.
c. If only Muriel voted for Hubert, he didn’t get elected.
d. Did only Muriel vote for Hubert?

All of (11a-d) seem to convey that Muriel herself voted for Hubert. As Horn has often pointed out (cf. Horn 1972:20; 1986:248ff; 1996), this argues against (10b) being either an assertion or an ordinary simple entailment of (10a), but we are left with the choice of presupposition vs. conventional implicature. 5 This choice, as it has been presented here, rides on whether (10a) entails (10b) or not. We will return to only below.

As noted, the prototypical presupposition types, as well as the rest of those indicated in Table 1, differ from conventional implicatures, as characterized by Grice and listed in Table 2, in that presuppositions are entailed by the matriarch of the S family (S herself) while conventional implicatures are not. However this difference apparently went unnoticed while their shared behavior – remaining constant throughout the S family – emerged as the more salient characteristic, and hence the category of conventional implicature became entwined with that of presupposition.

Another factor possibly encouraging the blending of the two categories was a change in the preferred analysis of presuppositions. As mentioned in note 1 above, Strawson, following Frege, had held that presupposition failure results in lack of truth value for the presupposing statement. This would make presupposition a semantic phenomenon. However, Stalnaker (1974) urged that this semantic view give way to a pragmatic one, a line promoted by a number of others, including Boër & Lycan in their paper “The myth of semantic presupposition” (1976). (This is the view alluded to at the start of this section; see also Kadmon 2001:206, and the works cited there.) On this new view presuppositions should be considered part of the common ground, and presupposition failure means that the utterance in question is inappropriate rather than lacking a truth value. A background assumption of this debate was that semantics can be identified with truth conditions. (I should note that Stalnaker himself was careful not to make this identification.) As we have seen, conventional implicatures are by Grice’s definition not part of truth conditions, so on the background assumption just cited, conventional implicatures would be pragmatic too, making them that much more similar to presuppositions.

Kent Bach, in “The myth of conventional implicature” (1999), presents himself as arguing that there is no such thing as a conventional implicature (as Boër & Lycan had argued that there was no such thing as a semantic presupposition). However, his main points are the obviously correct ones that what is expressed by conventional implicature triggers like even and therefore is both propositional in nature, and (contra Grice 1975) a part of what is said, which must therefore be taken to include not a single proposition but a bundle of propositions. The propositions expressed by conventional implicatures are felt to be secondary to the main assertion of a declarative utterance, hence our intuitive judgement that they are not entailed (because our utterance would be felt to be true even if its conventional implicatures were false). (I have argued for a somewhat similar position with respect to presuppositions (Abbott 2000); see also Potts 2005.) But to say this is not to say that the category of conventional implicature does not exist.

So, it may be useful to retain the category of conventional implicatures, and to be clear on the difference between them and presuppositions. The crucial difference, one more time, is that presuppositions are entailed by S (i.e. are part of the truth conditions of S), and conventional implicatures are not. Or, to put it another way, the propositions conveyed as conventional implicatures are felt to be in some sense peripheral to an assertion of S, while the propositions

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5 Horn 2002 proposes another option – “unasserted entailment”.
conveyed as presuppositions are a more integral part of that assertion. Consider example (12) below.

(12) Even the king of France is bald.
This would be considered true if there were presently a bald king of France even if kings of France (and only they) tended to be bald, but it definitely could not be true if there is no king.

3. Neutralization behavior.

We turn now to our main topic. We should start by noting that there are at least four ways to get rid of a presupposition. It is the fourth type, contextual neutralization, that will concern us; the first three will be discussed only in order to set them aside.

3.1. Four types of presupposition elimination. Horn 1972 was careful to distinguish SUSPENSION of a presupposition from its CANCELLATION. When a presupposition is suspended, its truth is left hanging; when it is cancelled it is denied. Of course in general, either suspension or cancellation should be possible only in the case of members of the family other than S, since presuppositions are entailed by S. Horn gives the examples in (13).

(13) a. John doesn’t realize that Sue loves him…
…if (indeed) she does.
…and (in fact) she may not.

b. # …and (in fact) she doesn’t.
(These are from Horn 1972, ex. 1.34; I’ve replaced his * with the more up-to-date #.) The out-and-out denial in (13b) seems inconsistent with the speaker’s use of realize.

When we turn to the cancellation of presuppositions, probably the most frequently cited example is (14):

(14) The king of France isn’t bald – there isn’t any (king of France)!

Of course given Russell’s (1905) analysis of definite descriptions as quantificational expressions which can, therefore, vary their scope with other sentence operators such as negation, (14) ought to be perfectly natural. However, (14) is undeniably marked. Horn (1985) argues that the negation in (14) is not the truth functional operator of logic but is rather METALINGUISTIC – a “device for registering objection to a previous utterance…on any grounds whatever…. ” (Horn 1985, 121). As such, metalinguistic negation displays a number of distinctive properties – the requirement of a prior utterance to object to, the lack of triggering for negative polarity items – which distinguish it from its logical cousin. As far as I know, all cases of outright cancellation of presuppositions are of this metalinguistic type. (Cf. Burton-Roberts 1989, chapter 10.)

Next, we should mention the well-known phenomenon of FILTERING OUT of presuppositions in conditionals and conjunctions (Karttunen 1973a, 1974; Karttunen & Peters 1979). Some examples are shown in (15).

(15) a. If Bill plays a trick on Jill, he will be sorry that he has done so.

b. Bill played a trick on Jill, and he was sorry that he had done so.

These are described as cases of “filtering out” presuppositions, since in each case the second sentence in the construction carries a presupposition which is not considered to be a presupposition of the utterance as a whole. This is because in each case the presupposition is added to the context in which the second sentence is evaluated. Note too that the presupposing
sentence here is the matriarch S herself, i.e. the presupposition is also entailed.\textsuperscript{6} In any case, this kind of filtering is irrelevant to our concerns since obviously any presupposition may be “filtered out” in this way without anomaly, as indicated by the examples in (16).

(16) a. If there is a king of France, the king of France is bald.
    b. Sue loves John, but he doesn’t realize that she does.
    c. If someone solved the problem, it was Lee who solved it.

But this raises the question of the relation between \textit{if}-clause filtering, as we have in (15a) and (16a, c), and Horn’s suspension device illustrated in (13a). Are these the same (as suggested by Levinson 1983, 195)? Or are they different, as suggested by Horn (1972, 30ff)?

Horn mentions several characteristics of suspender \textit{if} clauses that differentiate them from conditional antecedent \textit{if} clauses. One is that suspender clauses require negative polarity items rather than their positive counterparts (e.g. \textit{any} rather than \textit{some}), whereas conditional clauses do not. Another is their failure to occur preposed, in the normal conditional antecedent location. These characteristics are illustrated in (17a, b).

(17) a. The milk train doesn’t stop here anymore, if it ever/#sometimes did in the past.
    b. # If the milk train ever stopped here in the past, it doesn’t anymore.

Example (17a) is Horn’s (1972) ex. 1.48d. The crosshatch on \textit{sometimes} should be read with respect to the suspension reading. Of course \textit{sometimes} is acceptable on the ordinary conditional reading of the \textit{if} clause; however, on that reading the presupposition of prior milk train stoppage is not lifted but instead acknowledged. Similar remarks go for (17b).

Another characteristic of suspender \textit{if} clauses is that they may have their work accomplished by an \textit{and maybe not} clause, as in (13a) above, repeated here as (18).

(18) a. John doesn’t realize that Sue loves him…
    …if (indeed) she does.
    …and (in fact) she may not.

Ordinary antecedent \textit{if} clauses are not so paraphrasable. The nature of this paraphrase points to the essential difference between suspender \textit{if} clauses and antecedent \textit{if} clauses. Regular antecedent \textit{if} clauses present hypothetical situations; in the case of examples like (16a, c), they introduce presuppositions of the consequent clauses for temporary consideration. However the suspender \textit{if} clauses suggest something about what actually is the case – namely, that the presupposition in question may not hold. So although (19a) is acceptable, (19b), with a suspender \textit{if} clause, is not:

(19) a. If there is a leader for your group, the leader has turned in a report.
    b. # The leader for your group, if indeed there is one, has turned in a report.

(19b) sounds contradictory.

There is another distinctive property of Horn-style suspension clauses, which also distinguishes them from “filtering” \textit{if} clauses, and that is that in the examples given so far, suspension seems only to work with a negated sentence; it is less felicitous with other members of the S family, as shown in (20).

(20) a. # Maybe the milk train still stops here, if indeed it ever did in the past.
    b. # If John realizes that Sue loves him (and in fact she may not), then he’ll tell us.

\textsuperscript{6} However, there is a potentially important difference between the two cases. In the case of the conditional in (15a) the presupposed content (that Bill plays a trick on Jill) is introduced to the context temporarily, whereas because (15b) as a whole entails this content, it is a permanent addition. Hence it is strange to view the latter case as the “filtering out” of the presupposition, since it does not disappear.
This probably follows from a rhetorical constraint on this type of suspension. As Horn has pointed out, it is only possible when “the resulting sentence is true in a wider range of cases than is the initial sentence with its presupposition intact” (Horn 1972, 18).

Our main focus here will be contextual neutralization, which must be distinguished from Horn-style suspension, metalinguistic cancellation, and filtering out. The examples given at the beginning of this paper and repeated here in (21) are illustrative.

(21) a. …if anyone discovers that the method is also wombat-proof, I’d really like to know!

b. Mrs. London is not aware that there have ever been signs erected to stop use of the route…

c. Perhaps God knows that we will never reach the stars….  

One could successfully utter any of the examples in (21) while withholding conviction from either the truth or the falsity of the complement of the factive verb (although the significant occurrence of the negative polarity item ever in (21b) does suggest that the speaker leans toward falsity for the proposition in question there). But notice that there is no explicit use of a phrase such as if indeed it is wombat-proof, or and maybe we never will reach them, as was employed in the cases of suspension given above.

It is this phenomenon of contextual neutralization which seems to distinguish some presupposition triggers from others, and our main purpose is to try to figure out why. The following section summarizes the received view on which are which.

3.2. Hard vs. soft triggers.

Dorit Abusch (2002) has coined the term “soft trigger” for those presupposition triggers, like the cognitive factives, whose presuppositions are relatively easily neutralized, and “hard trigger” for the other ones. Other frequently cited examples of soft triggers are change of state verbs like stop, start, and continue, as in (22):

(22) a. I notice that you keep chewing on your pencil. Have you recently stopped smoking? [= Simons 2001, ex. 1; attributed to Geurts 1994]

b. If you stopped smoking in 2001, you are eligible for a payment from the Tobacco Indemnity Fund. [= Abusch 2002, ex. 5d; attributed to Kadmon 2001]

Examples (22a, b) are easily understandable without an assumption that the respective addresssees used to smoke. It is a little disturbing that the vast majority of examples used to show the soft triggerhood of change of state verbs have to do with somebody quitting smoking. However, Abusch also includes the example below:

(23) After the first meeting, John will either continue missing meetings, or continue attending them. [= Abusch 2002, ex. 9]

So I will assume that change of state verbs should be considered soft triggers.

Abusch points out the category of “achievement verbs like win which entail a preparatory activity” (2002, 2) and which also have easily suspendable presuppositions. For win, for example, the preparatory condition of participating in the event at all is presupposed, but this presupposition is easily suspended, as in (24).

(24) If Alberto wins the 2003 Falmouth Roadrace, he will have more Falmouth Roadrace victories than anyone else in history. [= Abusch 2002, ex. 7c]

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7 This observation actually goes back at least to Karttunen 1973b; see Horn 1990, 487f, for discussion. I am grateful to the present festschrift for reminding me of the existence of Karttunen’s paper.
As Abusch notes, it is clear that (24) could be uttered well in advance of the 2003 Falmouth Roadrace, say right after the 2002 race, and so before it will have become the case that Alberto has engaged in the preparatory activity of participating in that race.

It is interesting, and perhaps significant, that when Abusch turns to the category of hard triggers, at least some of her examples come from what I have been calling the triggers of conventional implicatures – e.g. *also, even, again* and *too* (Abusch 2002, 4). In this her judgements agree with those of Simons 2001. Compare the examples in (25).

(25)   a. # I don’t know if Jane ever rented “Manhattan” before, but perhaps she’s renting it again. [= Simons 2001, ex. 6]
    b. # After the first meeting, John will either miss the second meeting too, or attend the second meeting too. [= Abusch 2002, ex. 11]

The conventional implicatures associated with *therefore, manage*, the honorifics, etc., do not seem easily neutralizable either, as illustrated in (26).

(26)   a. # I don’t know whether English people are generally brave, but possibly Marcia is English, and therefore brave.
    b. # I don’t know whether she is married, but perhaps Mrs. Smith would like to bake an apple pie for us.

As a tentative hypothesis I suggest the following: **all instances of expressions which contribute conventional implicatures fall into the category of hard triggers.** If this hypothesis is true, it means that if *only* is a conventional implicature trigger, its conventional implicature should not be easily contextually neutralizable, and that does seem to be the case.

(27)   # I don’t know whether Muriel voted for Hubert, but possibly only Muriel did.

Example (27) is strained at best. What about the converse? Is it the case that all instances of triggers of presuppositions (where these are as characterized above, to exclude conventional implicatures) are soft triggers? Unfortunately, that does not appear to be the case. Presuppositions associated with focusing constructions (the cleft and pseudocleft constructions) are not easily lifted, as shown in (28).

(28)   I have no idea whether the problem has been solved, but …

a. # maybe it was Sue who solved it.
    b. # possibly the one who solved it was Sue.

The presuppositions of manner adverbials similarly are not easily neutralized, although in some cases they can undergo Horn-style suspension.

(29)   a. # Possibly Mary didn’t slice the carrots, but did she do so carefully?
    b. Millicent speaks quietly, if at all. [= Horn 1972, 1.54d]

The attempt at neutralization in (29a) is unsuccessful, in contrast to the suspension in (29b). Notice that this is a positive example, but because of *quietly*, the rhetorical direction is negative, allowing the Horn-style suspension.

The situation with definite descriptions is a little more complex. Abusch is apparently of two minds about the issue. In the text of her paper (2002, 11) she seems to assume that they are hard triggers, but she comments in a footnote, “Actually, it is not clear that the definite description is a hard trigger, since [its] presupposition is suspendable” (2002, 18, n. 10). Abusch (2005, n. 8) makes a similar comment, and provides the illustrative example in (30).

(30)   It is not true that John’s girlfriend does not like his children, because he has none. [= Abusch 2005, n. 8, ex. 1]
However example (30) is similar to example (14) above, which I (following Horn) have suggested is a case of metalinguistic presupposition cancellation rather than suspension or neutralization.

Possibly part of the ambivalence about definite descriptions is due to an interacting fact which complicates the picture, and that is the role of topic-focus structure in determining what is presupposed and what is not. Horn (1986) discusses this relation in detail, noting that topics tend to be presupposed. (Cf. also Partee 1996, and the works by Hajičová cited there.) When definite descriptions are functioning as predicate nominals, and thus as focus, they lose their presuppositional character to a great extent, as has been noted by a number of people. Donnellan observes the contrast in (31) (Donnellan 1966, 284).

(31)  
   a. Is the king of France de Gaulle?  
   b. Is de Gaulle the king of France?

Example (31a) presupposes that there is a king of France, while (31b) could have been used simply to inquire whether France is a monarchy. Putting aside predicate nominal usage, examples like the following would indicate that definite descriptions are hard triggers.

(32)  
   # Possibly no one owns this book, but if I find the owner I will return it.

So it appears to be only a proper subset of presupposition triggers that allow this easy contextual neutralization and fall into the category of soft triggers. Table 3 sorts out the two categories. We must now turn to the task of trying to explain what determines this behavior.

Table 3. Soft vs. hard presupposition triggers

<table>
<thead>
<tr>
<th>SOFT TRIGGERS</th>
<th>HARD TRIGGERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘Minimal’ cognitive factive predicates (e.g. be aware, discover, know)</td>
<td>‘Non-minimal’ factive predicates (e.g. forget, regret, be odd)</td>
</tr>
<tr>
<td>Change of state verbs (stop, start, continue)</td>
<td>Definite descriptions</td>
</tr>
<tr>
<td>Some lexical items (e.g. win)</td>
<td>Cleft constructions</td>
</tr>
<tr>
<td></td>
<td>Manner adverbials</td>
</tr>
</tbody>
</table>

4. Explaining neutralization.

In Abusch’s approach, the hard triggers trigger presuppositions which are “semantically encoded” and failures of which result in truth value gaps or undefinedness (Abusch 2002, 1). The presuppositions associated with soft triggers, on the other hand, are pragmatic. Abusch argues that the presuppositions of soft triggers are generated by lexical alternatives which in each case share the crucial entailment which is also the potential presupposition in question. For know the lexical alternative is be unaware, for stop it is continue, and for win it is lose. Her hypothesis is that the use of one of these alternatives introduces an alternative set of propositions into the discourse context – the one asserted and the one containing the lexical alternative. In the typical case, this set of alternatives will be topical and hence it will be assumed that one of them is true. Since both entail the presupposition in question, that proposition will be pragmatically presupposed. See the example below (from Abusch 2002, ex. (29)), where \( C \) stands for the set of alternatives.

(33)  
   assertion: John knows it is raining.  
   Alternative: John is unaware it is raining.
Thus the presuppositions associated with soft triggers are derived pragmatically, while (on this theory) the presuppositions associated with hard triggers are encoded semantically.  

There is much that is appealing about this approach, but it also raises a question: why is it specifically the *lexicalization* of the alternative that should be crucial? After all, to assert (34a) should call to mind (34b) just as much as (35a) calls to mind (35b).

(34)  
a. It was Sue who solved the problem.  
b. It wasn’t Sue who solved the problem.  

(35)  
a. John knows it is raining.  
b. John is unaware it is raining.  

And although (34b) may not be held to actually entail that the problem was solved, it certainly conveys it strongly. In fact, since we are speaking of pragmatically induced propositional content, it is even less clear that the lexicalization of the alternative should matter. Presumably the alternative propositions which belong to the set are couched in the language of thought, and not the outer language, so that the alternative set in the case of (34a) would be (36):

(36)  
\[ C = \{ \text{problem solved} \land s \text{ solve it}, \text{problem solved} \land \neg s \text{ solve it} \} \]

But this looks entirely parallel to the fourth line of (33) above. Abusch would reply that in the case of the cleft construction, the presupposition is semantically encoded, by stipulation. However, that means her theory lacks some explanatory power, since it cannot tell us why the soft triggers are soft and the hard triggers are hard. Ideally this would depend on some kind of intrinsic properties of the triggers, so we could avoid the need for stipulation.

Abusch 2002 was presented at SALT 12, and in the discussion following her presentation Bill Ladusaw made a remark to the effect that for some triggers, suspension was difficult since there was no other reason for including that expression in your utterance in the first place. Consider (37):

(37)  
Sue yawned again.  

Why would you utter (37) if you did not want to acknowledge the fact that Sue had yawned previously? There is no other reason for the word again to be included in the utterance, and so we expect its bit of meaning not to be easily neutralizable. (After writing this paper I learned that Horn 1981, 133f had made a similar suggestion with respect to clefts; Simons (2002) also alludes to this consideration, although for a somewhat different purpose.)

Just for kicks, let us extract a hypothesis from Ladusaw’s remark:

\[(H)\]  
A presupposition (or conventional implicature) \( p \) is neutralizable iff it is nondetachable.

To the extent that this hypothesis is true, it would suggest a Ladusavian (or Hornesque, or Simonsy) explanation for the neutralization patterns we have found: If there isn’t any ready way

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8 Note that if definite descriptions were soft triggers, as Abusch’s footnote cited above suggests, her analysis would have a hard time accounting for them. The reason, in brief, is that exchanging the with its lexical alternative a gives a pair of propositions that are not the ones under discussion – too much becomes presupposed. Compare (i):

(i)  
a. The book is tattered.  
b. A book is tattered.  
c. \[ C = \{ \text{there is a book} \land \text{there is a unique book} \land \text{and it is tattered, there is a book} \land \text{it is tattered} \} \]

d. Disjunction of alternatives: \text{there is a book} \land \text{it is tattered}

On Abusch’s analysis, *The book is tattered* should presuppose that there is a tattered book, and clearly this is not the case.
to detach the presupposition through rephrasing, language allows us to neutralize it, but if there is a handy alternative (and hence your only reason for using the trigger in question appears to be to convey that presupposition/conventional implicature), then you can’t neutralize it. In general, of course, this explanation would work for all the conventional implicatures. As stressed by Grice, they are detachable, and so we expect the lack of neutralizability which we have observed.

Let us turn to the presupposition triggers and see whether our hypothesis will correctly separate the hard triggers from the soft ones. In the case of the focusing constructions (clefts and pseudoclefts), which are hard triggers, this line of explanation seems to give us a plausible starting place. The speaker has chosen to use a marked, more complicated, construction for which there is no apparent reason other than focusing a particular constituent and putting everything else in the background. Why say (38a) rather than (38b), unless it is uncontroversial that the problem was solved?

(38) a. It wasn’t Sue who solved the problem.
    b. Sue didn’t solve the problem.

Here again, the presupposition is readily detachable simply by using the unmarked sentence form, and so we expect it not to be neutralizable, which it isn’t.

Perhaps what has just been said about the focusing constructions could be extended to manner adverbials, as in (39).

(39) Mary sliced the carrots slowly/carefully/with a cleaver.

In this case what happens is that the content of the manner adverbial becomes the main assertion, with the remainder of the sentence turning into presupposition. As indicated above in example (29a), repeated here as (40), manner adverbials also seem to be hard triggers.

(40) # Possibly Mary didn’t slice the carrots, but did she do so carefully?

Though quite different from the typical conventional implicature triggers, which convey their own content as background information, the manner adverbial construction is in some ways similar to the focusing constructions in altering the information structure of a sentence to put forward a particular constituent. Definite descriptions, which also seem to be hard triggers, fall nicely into line too. Use of the presupposes the existence of an entity meeting the descriptive content of the NP whereas use of the indefinite article does not. Hence this presupposition is easily detachable and should not be neutralizable.

The other side of the coin comes when we consider soft triggers. Let’s start with the change of state verbs like stop, and the other lexical presupposers like win. Unlike the hard trigger cases, here we should not be able to say that the only reason to use that word was to convey that presupposition. The presupposition ought not to be detachable. And indeed, that seems to be true. Each word clearly incorporates at least two important semantic components. In the case of stop they are (i) that the eventuality referred to in the complement clause had been occurring, and (ii) that as of the event time referred to, it ceased. In the case of win they are (i) that the winner participated in the competitive event referred to by the object NP, and (ii) that that individual was the best in this competition.

It is probably significant that each of these words is a verb. That means that when one of them occurs as the main verb of the sentence, typically one of the components expressed will be an essential part of the main point of the utterance, forcing the other component into presupposition (nonassertion) mode. It is when we have the sentence under an operator of some sort (negation, conditional, a possibility modal) which captures both of the semantic components that the presuppositions are suspended.
Anyone who has been keeping careful score (or who has a good memory) will know that we are not home free. The problem is that presented by the factive verbs. As noted at the outset, we have two subcategories. Cognitive factives like know, be aware that and discover are soft triggers, easily losing their factivity. The other factives, e.g. regret, be significant, be odd, matter, count, ignore, be tragic, etc., are hard triggers, whose presupposition is not easily lifted. If our hypothesis were true, the presupposition of the cognitive factives should be nondetachable, and that of the regular factives should be detachable. However, the facts seem to be almost exactly the reverse! On the one hand it is easy to find close paraphrases for sentences with know and be aware that which differ only in lacking factivity, as shown in (41) and (42):

(41)  a. Bill knows that it is raining.
     b. Bill is confident/certain/sure that it is raining.
(42)  a. Mary is aware that she cannot trust you.
     b. Mary thinks/believe that she cannot trust you.

So these stative cognitive factives show detachability and neutralizability. We might take some comfort from some of the other cognitive factives, like discover and realize, since these seem to lack detachability. Paraphrases which spring to mind, like come to know, learn that, stumble on, are equally factive. However our comfort is short lived, because when we turn to the non-cognitive factives, we find that these hard triggers also show nondetachability. All the near synonyms of regret, for instance – be sorry that, be sad that, rue – seem to share the presupposition of truth of the complement clause, and similarly for be odd that, be surprising that, matter, etc. Hence these presuppositions are not readily detachable, and so they should be neutralizable. However, this is not the case. As we noted at the outset, the examples in (2), repeated here in (43), couldn’t be used appropriately in contexts where the speaker was not assuming that the complement clause was true.

(43)  a. If any of the students regrets behaving badly, they’ll let us know.
     b. It doesn’t matter that the chimpanzees escaped.
     c. Was Bill surprised that spinach was included?

Perhaps some relevant difference between these factives and the cognitive factives can be found to explain their different behavior. Maybe the cognitive factives don’t express as much more about the complement clause as the other factives do. To regret something, for example, you have to know it is the case and feel bad about it. Or maybe the components of the soft triggers are more closely related somehow, so that it is more natural for both to get caught together in the scope of a sentence operator. In any case, the definitive end to this story must await further exploration.

5. Conclusion.

In this paper we have surveyed the neutralization behavior of a number of types of presuppositions and conventional implicatures. In the penultimate section we explored one particular line of inquiry into what differentiates hard triggers – expressions whose presupposition or conventional implicature is not easily neutralized – from soft triggers – those expressions whose associated presupposition is easily neutralized. While to some extent the results are promising, the recalcitrant behavior of the factive predicates remains without an explanation. Most likely there are other factors which need to be taken into consideration. One which seems fairly obvious but which I have not had an opportunity to pursue is the extent to which an assertion can be successful despite the failure of its associated presupposition or
conventional implicature. (This may account for some of the differences between the existence presupposition associated with definite descriptions, and the uniqueness (or exhaustiveness) aspect of their meaning, which we have ignored in this paper.) There is also a body of literature exploring the possibility of reducing at least some presuppositions to conversational implicatures (e.g. Wilson 1975, Grice 1981, Atlas & Levinson 1981, Levinson 1983, Chierchia & McConnell-Ginet 1990, Kadmon 2001, Simons 2001), which has not been given the attention it deserves in the foregoing. Finally, more careful consideration needs to be given to exactly what kind of behavior establishes a soft trigger as soft or a hard trigger as hard. Here for the most part I have followed the judgments and supporting examples of others, but the tests are not standardized and need to be investigated. Possibly that enterprise would shed more light on this subject.

References


Horn, Laurence R. 1969. A presuppositional analysis of only and even. CLS 5, 97-108.


