Observations on Embedding Verbs, Evidentiality, and Presupposition

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1. Introduction

Where do presuppositions come from? There are two kinds of answer which one can give to this question. One answer is that particular lexical items have presuppositional properties as part of their lexical content, and hence that sentences containing these items have presuppositions as part of their conventional content. The other type of answer is that presupposition is a consequence of the way speakers use sentences, and that presupposition can be explained in terms of general properties of conversation.

One argument in favor of the latter view is the phenomenon of presuppositional variability: sentence types which sometimes give rise to presuppositions and sometimes do not. If this variability can be systematically related to facts about usage, then the view of presupposition as a conversational phenomenon gains support.

One central class of supposedly presuppositional sentences are those containing so-called factive predicates: predicates which, it is claimed, require that their complements be

presupposed.[1] In this paper, I discuss a use of such sentences in which the complements are clearly not presupposed. Sentence (1)B. is an illustration of this use:

(1)   A: Where was Harriet yesterday?
        B: Henry discovered that she had a job interview at Princeton.

In (1)B., the complement clause carries the main point of the utterance, while the main clause serves what I shall argue is an evidential function, indicating (in this case) the source of the speaker's information. I will show that embedding verbs can systematically be used with evidential or other discourse functions, and that when so used, are always non-presuppositional. This will provide an argument in favor of the conversational approach to presupposition.

   This usage of embedding verbs is not limited to factives; indeed, the evidential use of non-factives is in some sense more straightforward. In section 1 of the paper, I establish the basic features of this usage of embedding verbs with the non-factive case. In that section, I also develop an argument that the evidential uses of embedding verbs should not be treated as a case of ambiguity, either semantic or syntactic. The non-ambiguity position I adopt is crucial for the argument against the conventionality of presupposition presented in section 3.

2. Main clauses as evidentials: the non-factive case

2.1.   Embedded clauses with main point status

   The notion of the main point of an utterance will play a central role in this discussion. Unfortunately, the notion is far from clear from a theoretical perspective, although intuitions

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[1] In section 3, I will introduce a different notion of factivity.

about it, at least in the cases I will discuss here, seem quite straightforward. I begin, though, by offering a working definition of this term.

First, note that it is utterances of sentences, and not sentences themselves, which have a main point. I take the following as a reasonable approximation of the notion: the main point of an utterance U of a declarative sentence S is the proposition p, communicated by U, which renders U relevant.[2] The notion of relevance assumed here is whatever notion is needed for the satisfaction of the Gricean Maxim of Relation. Note that this definition does not require that p be the literal content of the sentence uttered, or of any of its constituents; p need only be communicated by the utterance. Thus, an implicature, a presupposition, or any other implied proposition may constitute the main point. However, in the cases we will be concerned with here, the main point will almost always be the content of some constituent of a sentence. To sharpen intuitive judgments, I will utilize question/response sequences as a diagnostic for main point content. I assume that whatever proposition communicated by the response constitutes an answer (complete or partial) to the question is the main point of the response.

With this much in place, let us consider the first set of examples. (Note that indications of unacceptability only relate to acceptability as a response to the question.)

(2) A: Who was Louise with last night?
     B: a. She was with Bill.
        b. Henry thinks/I think that she was with Bill.
        c. Henry believes/I believe that she was with Bill.
        d. Henry said that she was with Bill.

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[2] I emphasize that this is merely a working definition which suffices for my purposes here. As a general definition, it is undoubtedly in need of revision. For one thing, the definition is predicated on the assumption that for any declarative utterance utterance there is a single proposition which renders it relevant, which may not be the case.

e. Henry suggested that she was with Bill.

f. Henry hinted that she was with Bill.

g. Henry imagines/I imagine that she was with Bill.

h. Henry supposes/I suppose that she was with Bill.

i. Henry heard/I heard that she was with Bill.

j. Henry is convinced/I'm convinced that she was with Bill.

k. (?)Henry hopes/I hope that she was with Bill.

l. ?Henry wishes that she was with Bill.

m. ?Henry dreamt that she was with Bill.

Response a. is a straightforward assertion which answers A's question: Louise was with Bill. Responses b.-j. are ways of proferring that same answer, but with some degree or other of limited certainty. The answer, though, is in these cases the content of the embedded clause. So here, the content of the embedded clause, not the main clause, constitutes the main point of the utterance. In such cases, I will say that the embedded clause has *main point status.*

In other environments, the main clause of any of these sentences could have main point status, for example in the most natural interpretation of the sequence in (3):

(3)   A: What is bothering Henry?
        B: He thinks that Louise was with Bill last night.

This provides an illustration of the the fact that different utterances of the same sentence can have different main points.

2.2.   Main clauses as evidentials

In the examples above, where the embedded clause has main point status, the main clause predicate appears to be functioning as a kind of evidential. Evidentials, according to Rooryck 2001, carry information of two sorts: information about the source of a claim; and information about the status of that claim with respect to its reliability, probability, expectation or desirability. This is precisely the information carried by the main clauses in the examples above. Let us reconsider some of them:

(4)   A: Who was Louise with last night?
       B: a.   Henry thinks that she was with Bill.
           b.   I heard that she was with Bill.

Response (a) can be paraphrased as follows:

(5)   "The answer to your question might be that Louise was with Bill. The source of the claim that Louise was with Bill is Henry; but Henry is not fully committed to its truth."

Similarly, we might paraphrase response (b) as:

(6)   "The answer to your question is probably that Louise was with Bill. I'm asserting this on the basis of hearsay evidence, so the claim is as reliable as my sources."

The oddity of responses k.-m. in example (2) above is presumably due to the fact that Henry's hopes, desires and dreams do not provide very good evidence as to what is the case,

and so are not evidence on which answers to a factual question should be based. (On the other hand, if Henry has a reputation as a seer, response m. is fine!)

The previous two examples show main clause predicates carrying information about the reliability of an embedded claim. Main clause predicates can also serve some of the other functions listed by Rooryck. Predicates such as *be (un)likely* and *be probable* provide information about the probability of the embedded content. And in sentences like (7), the main verb indicates the speaker's emotional orientation toward the embedded content:

(7)   I regret that your request has been denied.

We will return to sentences of this last sort later.

I am using the term "evidential" to delineate a particular discourse or pragmatic function, not a syntactic or semantic property. I assume that the distinction between evidential and 'ordinary' uses of clause embedding predicates is purely one of usage, or intended interpretation, and does not reflect either syntactic or (lexical) semantic ambiguity. This assumption is crucial to the argument concerning presuppositionality which I will turn to in following sections. So, let me spend some time here developing the position.

Kripke 1977 suggests the following strategy for determining whether a particular case of multiple readings of an expression should be attributed to an ambiguity, or to general pragmatic principles: We posit a language in which the ambiguity is stipulated not to exist, and consider whether the multiplicity of interpretations would still arise. This seems to be the case for evidential readings of embedding predicates.

Let's posit a language which is identical to English, except possibly for one thing: we stipulate that in this language, sentences of the sort shown in (2) are syntactically and semantically unambiguous. So, for example, the sentence:

(8)   Henry believes that Louise was with Bill last night.

has a unique syntactic structure, in which *believe* functions as an embedding verb; and is true iff Henry has the belief that Louise was with Bill last night. Crucially, speakers of this language have no recourse to sentences with a 'special' evidential verb *believe*, and the language has no syntactic resources to constrain *believe* to an evidential function.

Now, suppose that a speaker of this language is asked: "Who was Louise with last night?" Suppose further that our speaker is not in a position to give a straightforward answer to the question – she doesn't know for sure who Louise was with last night. But she does know of a belief of Henry's which is relevant. So, she might well respond with (8).

Now it is up to the addressee to make sense of this response. Clearly, the information that Henry believes some proposition *p* does not constitute an answer to her question. But she expects the speaker to give an appropriate answer. (We must assume that speakers of the language are constrained by the same pragmatic principles as we are.) She might therefore conclude (via some inference process) that it is the *content* of Henry's belief that the speaker is proffering as answer. She might further conclude, from the fact that the speaker has not simply asserted that Louise was with Bill, that the speaker herself does not have adequate evidence to make this assertion. The speaker has, though, asserted that *Henry* believes this. Therefore, the speaker must intend to present Henry's belief as the source of the proffered answer that Louise was with Bill.

If we can imagine how an interpreter could arrive at an evidential interpretation of the verb *believe* even in a language in which the verb, by stipulation, has only its ordinary syntax and semantics, then there is no reason to posit ambiguity to account for its evidential interpretation in English.

My non-ambiguity position runs contrary to a view currently prevalent in the generative syntax literature, according to which evidentiality (as well as other discourse related properties of sentences) is associated with functional projections in the syntax. On this view, which originates with the work of Cinque (1999), a verb functioning as an evidential expression occupies a distinct syntactic position from that which it occupies in its non-

evidential function. On this view, properties of evidential expressions (such as so-called semantic bleaching) can be attributed to properties of the syntactic position itself. (For an example of such an account, see Rooryck 2001.)

This view, which we could call the 'articulated syntax' view, is not motivated solely by observations about interpretation, but also by a variety of syntactic considerations. Among these are differences in the behavior of verbs in a variety of languages with respect to modification, and tense and aspect marking, when they function in different ways. The Kripke-argument just given does not, of course, address such considerations; and perhaps quite independent evidence can be given, for example, for the existence of an Evidential Phrase in English. However, the sentences which will be considered here allow equally well for an evidential or an ordinary interpretation of the main clause verb. So, there seem to be no syntactic considerations which could be directly applied to just these sentences. Moreover, it is clear that even if the sentences in question are syntactically or semantically ambiguous, pragmatic considerations must come into play in resolving the purported ambiguity. But the very considerations which are necessary to resolve the ambiguity suffice to identify the intended reading. So the necessity for the ambiguity account is again called into question.[3]

An alternative syntactic ambiguity account, not in a generative framework, is offered by Thompson and Mulac 1991. Thompson and Mulac argue that *I think* and *I guess* have,

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[3] It is useful to constrast this case with the case of PP-attachment ambiguity, the paradigm case of a syntactic ambiguity. Consider the sentence:

(i) The woman called her friend from NY.

Certainly, in context, pragmatic considerations will be applied to disambiguate. However, the fact that two distinct interpretations are available is explained by the syntactic analysis, which allows for two different attachment sites for the PP. Pragmatics alone cannot account for the readings which are and are not available (e.g. for the fact that *from NY* cannot modify *woman*). In contrast, the availability of an 'ordinary' and an evidential reading of the embedding verbs in our examples can be explained without reference to syntax.

through the process of grammaticalization, been reanalyzed by speakers as what they call "epistemic phrases," functioning syntactically and semantically like epistemic adverbs even when they occur sentence initially.[4] They argue that "this shift involves the periphrastic verb-subject combination *I think* becoming a single element behaving as a member of the grammatical category of adverb" (p.318). This, they claim, accounts for what they (and others) characterize as semantic bleaching of the predicates, as well as the overwhelming tendency for these phrases, even when sentence initial, to occur with a *that*-less complement.[5] Similarly, Anderson 1986 argues that some embedding verbs have been grammaticalized as evidential markers. He notes that the verbs *hear* and *understand* may be used in the present simple in their evidential function, even when the hearing or understanding occurred in the past, as in:

(9)   I hear/understand that Mary won the prize.

The same is true of the verb *see*. These tense-unmarked forms have reduced semantic content compared with the tensed forms of the verbs. Compare (9) with (10) below where, even if the subordinate clause carries the main point content, the main clause is more likely to be taken to refer to an actual event of hearing or understanding (i.e. coming to know):

(10)   I heard / understood that Mary won the prize.

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[4] Thompson and Mulac do not detail the syntactic framework they assume. However, it is clear that their view is that as EP's, *I think* and *I guess* are syntactically distinct from their non-EP counterparts.

[5] In fact, it is the frequency of *that*-less complements which supports the grammaticalization claim.

The distinction between (9) and (10) indicates that while some verbs, in some inflectional forms, may have been grammaticalized into pure evidential markers, others simply have evidential *uses*. Anderson indeed emphasizes the need to distinguish between these two cases. As further evidence, note that even recent coinages, which presumably could not yet have undergone reanalysis, can be used with an evidential function. Consider:

(11)   A: Isn't Jane supposed to be here?

        B: She emailed me that she'd be late.[6]

So even if one were to accept the syntactic reanalysis/grammaticalization account, it is only applicable to a small subset of the cases in question.

Many of the predicates which occur with an evidential function in the examples considered so far also appear in so-called "Slifting (Sentence lifting) constructions" (Ross 1973) such as those in (12).[7]

(12)   a. Louise was with Bill, I believe / surmise / guess / hear(d).

        b. Louise was with Bill, Henry said / hinted / told me.

        c. Louise, Henry said, was with Bill.

From a discourse or usage point of view, it seems quite clear that the main point of an utterance of a slifted sentence will be the content of the slifted (i.e non-parenthetical) clause,

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[6] An anonymous reviewer points out that, if one adopts the assumptions of the articulated syntax framework, the fact that *email* takes a goal argument in this example suggests that it is not a pure functional head. So, at least in this case, there is a suggestion that evidential usage does not entail special syntactic properties. This provides empirical support for the Kripke argument above.

[7] I am grateful to two anonymous reviewers for information about the syntactic literature on these constructions.

with the syntactically parenthetical clause serving a parenthetical function.[8] More specifically, Rooryck 2001 argues that the parenthetical clauses in slifting constructions serve evidential functions. The fact that the predicates which typically occur in these parenthetical clauses are the very ones which occur in the sentences in (2) lends support to the analysis of the latter as evidential.

But the syntactic analysis of these constructions is much less straightforward, and even basic questions concerning the hierarchical relation between the slifted clause and the parenthetical clause remain unresolved (see Stowell (ms)). A central question is whether slifting is just a variety of fronting, with slifted clauses being, underlyingly, simply complements of ordinary embedding verbs; or whether these constructions are syntactically quite distinct from ordinary embedding constructions.

This is relevant to the ambiguity question in the following way. Suppose that convincing arguments are given that in slifting constructions, the relation between the slifted clause and the parenthetical is *not* the standard embedding relation that holds between a main verb and its complement: either the parenthetical verb does not embed the slifted clause (as in a parataxis account); or it occupies a syntactic position distinct from that occupied by an ordinary embedding verb. Then it might be argued further that the cases under consideration here, where an apparently ordinary embedding verb has an evidential function, are in fact instances of slifting constructions where the parenthetical happens to occur sentence initially. Then any special properties of the embedding/parenthetical verb, including the lack of presuppositionality to be discussed below, could be attributed to its special syntactic properties.

However, it turns out that the phenomenon of main clause predicates functioning as evidentials is considerably less restricted than slifting. First, some embedding predicates

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[8] A reviewer points out that much of the literature on slifting argues that in this construction, the slifted clause is focussed, and thus flagged as an answer to a question under discussion or, in my terms, as the main point.

which can be used with an evidential function do not occur in syntactic parentheticals, or are limited in parentheticals to particular persons or tenses. Consider:

(13)　a.　Jane emailed me that she'll be here next week.

　　　b.　*Jane'll be here next week, she emailed (me).

(14)　a.　I bet / Tom bets (that) they'll reinstate the draft.

　　　b.　They'll reinstate the draft, I bet / ??Tom bets.

Moreover, embedding predicates used with an evidential function allow adverbial modification, in contrast to the predicates in parentheticals (see Rooryck 2001):

(15)　Who was Louise with last night?

　　　a.　I'm really afraid that she was with Bill.

　　　b.　She was with Bill, I'm (*really) afraid.

　　　c.　Henry firmly believes that she was with Bill.

　　　d.　She was with Bill, Henry (?firmly) believes.

These observations tell against an analysis of the sentences under consideration here as slifted constructions with sentence initial parentheticals, and indeed support the non-ambiguity position proposed above. I conclude, then, that the sentences we are concerned with – for example, those in (2) above – have the same syntactic structure and the same truth conditional content whether their main clause predicates are construed evidentially, or as main point content. I can now summarize the conclusions so far. Sentences with main clause embedding verbs can be used in at least two ways: either the main clause or the embedded clause may have main point status. When the embedded clause has main point status, the main clause predicate acquires an evidential interpretation.

This observation has been made before in the literature, going back at least to Urmson 1952. Urmson observes that embedding predicates can be used to "prime the hearer to see the emotional significance, the logical relevance, and the reliability of our statements" (p.484) – a characterization which, as Rooryck 2001 notes, comes close to a definition of evidentiality.[9] Urmson calls such uses *parenthetical uses* (referring here to the discourse properties of predicates, not to syntactic structure). We will see below that embedding verbs can serve discourse functions other than evidentiality, so this will be a useful cover term to adopt.

Parenthetical uses of verbs are also discussed at length by Hooper (1975). Like Urmson, whom she cites, Hooper invokes notions of evidence and degrees of commitment in describing this parenthetical use. She calls verbs which allow a parenthetical use *assertives*, adopting this term "not because [the predicates] are themselves assertive, but because their complements are assertions" (95). Elsewhere, she describes the complements of parenthetical predicates as carrying "the most important semantic content." My characterization of parenthetical uses as involving embedded clause main point echoes hers; however, contrary to Hooper, I deny that this main point content is asserted. When an embedding verb is used evidentially, part of its function is very often to indicate the weakness of the speaker's commitment to the truth of the complement. Assertion, on the other hand, is an act which commits the speaker completely to the truth of what is asserted.

By this criterion, it is in fact the main clause proposition which counts as asserted, even when the main clause predicate is used evidentially. This is supported by facts about agreement and disagreement. Consider two different ways a hearer might respond to B's utterance below:

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[9] Urmson in fact suggests that for some of the verbs discussed here, their evidential use is their *primary* use, with their (occasional) use as "psychological descriptions" being derivative.

(16)   A: Why isn't Louise coming to our meetings these days?

   B: Henry thinks that she's left town.

   C: a.   But she hasn't. I saw her yesterday in the supermarket.

   b.   No he doesn't. He told me her saw her yesterday in the supermarket.

In utterance (a), C is responding directly to the main point of B's utterance. What C says is an appropriate rejoinder, but it is in no way a denial of what B has said, merely a rejection of it as a satisfactory answer to the question. The response in (b), on the other hand, is a denial; and it is a response to the claim about what Henry thinks. From the fact that the claim can be denied, it is clear that it has been made. So, even though B's main point is that Louise (might have) left town, her utterance commits her to the proposition that Henry thinks this. This is the kind of commitment which accompanies assertion. Thus, what is asserted is distinct from the main point content.[10]

The distribution of main point and non-main point material in an utterance involving a predicate used parenthetically can be more complex than the discussion so far indicates. As prelude to some more complicated examples, note that a felicitous response to a question may, instead of proffering a positive answer, exclude certain answers that may have been under consideration. (Such an answer would be a partial answer.) For example:

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[10]   Kai von Fintel (p.c.) observes that facts about iteration further support the idea that embedding verbs used evidentially contribute to the proposition expressed. Consider:

   A: Why isn't Louise coming to our meetings these days?

   B: I hear that Bill says that Peter suspects she's looking for another job.

The proffered answer to the question – the main point – is contained in the most deeply embedded clause. The sentence in its entirety provides an account of B's evidence for her proffered answer. But the verbs *say* and *suspect* also contribute their normal content to the clause in which they are themselves embedded: thus, B claims that Bill said something about what Peter suspects, etc.

(17)   A: Which course did Jane fail?

         B: Well, she didn't fail calculus. [We took that together, and she aced it.]

Now observe that we can use forms with a parenthetical predicate to convey an exclusionary answer of this sort:

(18)   Which course did Louise fail?

         a. Henry, the idiot, thinks she failed calculus.

         b. Henry, entirely wrongly, is convinced that she failed calculus.

         c. Henry, falsely, said that she failed calculus.

All of these are ways of conveying both that Louise did *not* fail calculus; and that Henry mistakenly believes that she did. In these examples, it *is* part of what the speaker conveys that Henry thinks, or is convinced, or said, a particular thing. However, this thinking or saying is not the main point of the utterances. The main point is most closely related to the embedded clause; but the main point is not to proffer this content, but to deny its truth. The verb *doubt* can perform the same function. Consider example (19) as response to the same question:

(19)   I doubt that she failed calculus.

In all of these examples, main point content cannot be identified with the content of either the subordinate clause alone or the main clause. Rather, main point content emerges from the interaction between the subordinate clause content and the attitudes to that content expressed by the other predicates used.

    The examples in (18) differ from those we have considered so far also in the discourse role of the main clause predicate. In the examples so far, the main clause provides

information about the source or reliability of the main point content. But in the examples in (18), Henry is not the source of the information that Louise did not fail calculus; nor is Henry's believing or saying that she failed calculus offered as the reason to believe that in fact she did not. Rather, it must be presumed that the speaker knows this from some other source. What, then, is the discourse role of the information about Henry's beliefs?

Its role appears to be to justify the speaker's choice of an exclusionary answer to the question. Offering an exclusionary answer is, from the speaker's perspective, slightly risky: if the questioner does not see the relevance of the possibility which is excluded, then the response will be judged inappropriate. One way to justify an exclusionary answer is by pointing out that someone else has incorrectly proffered the same answer as true, and this seems to be the function of the reference to Henry's beliefs in the responses in (18). We might paraphrase the communicative effect of those responses along the following lines:

"The answer is not that she failed calculus; and the reason I bother to exclude this one in particular is that Henry believes/said that she did."[11]

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[11] An anonymous reviewer poses the following puzzle: Why, in the following sequence, is B's reply not an appropriate way to proffer the negation of the complement clause as a complete answer to the question?

A: Why isn't Louise coming to our meetings these days?

B: Henry, falsely, thinks that she is still in town.

The analysis just proposed solves the puzzle. *Henry thinks...* cannot here be given an evidential interpretation, as Henry is not the source of the information that Louise isn't still in town. It also cannot be interpreted as providing justification for a particular partial, exclusionary answer, as the negation of the complement in this case constitutes a complete answer. B can know that Henry's belief is false only if she knows, independently, that Louise is not still in town. If she knows this independently, then she is in a position to provide a complete answer to the question. Invoking Henry's false belief in this case has no function.

Hence, the examples in (18) provide us with a case where an embedding predicate is used for a parenthetical function other than evidentiality, at least as this is standardly construed. We will see additional examples below.

3. The factive case

3.1. Factive entailments and factive presuppositions

Within the class of clause embedding predicates, we can draw a distinction between factive and non-factive predicates. From here on, I use the term *factive* in a non-standard way, defining factivity as follows:

(20)   A clause-embedding predicate P is factive iff a sentence S in which P occurs unembedded **entails** the complement of P.

We will call a sentence S as characterized in (20) a factive sentence, and the entailment from such a sentence to the content of its complement clause the factive entailment.

The cases we examined in the previous section all involve non-factive embedding predicates. These are of particular interest because, when the embedding predicate is used evidentially, the speaker may take on some degree of commitment to the truth of the complement clause, even though the complement clause is not entailed by the sentence as a whole. We turn now to the case of factive predicates. These are of interest because of the relation between factivity and a second property, presuppositionality.

Going back at least to Kiparsky and Kiparsky 1970, it has been observed that of the sentences which are factive in the sense just defined, many have a further property: their utterance typically indicates that the speaker presupposes the truth of the complement clause. (Kiparsky and Kiparsky used the term *factive* for just this class of sentences, and this is how

it is typically used.[12]) I introduce the term *presuppositional factive* or *p-factive* for these sentences. I will call the implication that the speaker presupposes the complement the *factive presupposition*.[13]

There are many divergent views as to what it means to say that a sentence, or an utterance, or a speaker presupposes some proposition (and, indeed, around the question of which of these claims it is coherent to make). For my current purposes, I want to adopt a fairly neutral position, largely following the view of Stalnaker (1974, 2002). I will say that an utterance bears a presupposition *p* just in case it indicates that the speaker is treating *p* as part of the conversational common ground. (Note that in my formulation, it is utterances that are the primary bearers of presuppositions.) We can say that a sentence S bears a presupposition *p* just in case its utterance normally bears a presupposition, in the primary sense just given.[14]

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[12] Kiparsky and Kiparsky also identify factive sentences by a variety of syntactic criteria.

[13] The predicates which typically produce p-factive sentences stand in contrast to what Karttunen 1971 called *implicatives*: predicates which produce sentences which entail their complements but do not presuppose them. These include *manage* and *happen to*. Crucially, a sentence in which one of these is negated, such as (i), entails the negation of the complement, not its truth.

(i) Jane didn't manage to leave on time.

However, in these cases, there is an aditional implication – in the case of *manage*, that the subject tried to bring about whatever is described by the complement – which is shared by both the affirmative and negative versions of the sentence. (Thanks to a reviewer for reminding me of this set of cases.)

[14] This is not my actual view on the nature of presupposition. (For an approximation of this view, see Simons 2004.) However, I don't wish to complicate this discussion by injecting into it a novel view of presupposition. I adopt this relatively weak version of the

Entailments of sentences are a consequence of their conventional content; factive entailments are no different. Many researchers assume that factive presuppositions are likewise due to the conventional content of particular embedding predicates. So, for example, it is assumed that *know,* by convention, contributes to a sentence in which it occurs both a particular truth conditional content, and a particular constraint: that the sentence is in some sense admissible only if the speaker is justified in treating the complement as common ground.[15] There is, though, an alternative view: that utterances bear particular presuppositions because of the way they are used, and because of general properties of conversation. On this view, it should be possible to "explain many presupposition constraints in terms of general conversational rules without building anything about presuppositions into the meanings of particular words or constructions" (Stalnaker 1974:212).

To say that presupposition can be explained by reference to general properties or principles of conversation is not to say that presupposition can be reduced to conversational implicature (although some have taken this position – see, for example, Atlas and Levinson 1981). One way in which the two can be distinguished is this: conversational implicatures are, by definition, propositions which it is part of the speaker's communicative intent to convey. The presuppositions of an utterance, on the other hand, while inferrable from it, may be conveyed merely as a by-produce of the utterance, and not be intended by the speaker as part of its communicative effect. It is perfectly coherent to maintain the position that there

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Stalnakerian position here because it captures the intuition that presuppositions are in some sense backgrounded, and thus contrasted with what is foregrounded or proffered content. I think that everyone accepts that, whatever the correct analysis of presupposition might be, it should capture this contrast.

[15] How this constraint is spelled out depends on the framework. I am trying here to keep the discussion framework-neutral, as the issue is whether presuppositions are conventional, and not what they are or how they should be formalized.

is a phenomenon of presuppositionality which is distinct from conversational implicature but nonetheless explicable in terms of the same underlying principles. This is the position taken by Robert Stalnaker. However, the prior question is whether presupposition should be taken to be conventional or conversational, and this is the focus of the discussion here.

The two approaches to the source of presupposition make distinct predictions about the possibility of presuppositional variability. If presuppositions are part of the conventional content of expressions, then they should be constant: if an expression is presuppositional, then it should always be presuppositional. On the other hand, if presupposition is grounded in conversational norms, then the presuppositionality of a sentence might well be affected by the conversational role it plays.

In what follows, I will demonstrate that purportedly p-factive predicates can be used evidentially, and when so used, are not presuppositional. Given the arguments above that evidential uses of embedding predicates are not the consequence of either syntactic or semantic ambiguity, these observations support the view that factive presuppositions do not arise due to lexical properties of particular predicates.[16]

The data to be discussed are of interest for several additional reasons. First, they show that factive presuppositions are independent of factive entailments: presuppositionality can be suppressed even when factive entailments are present. Second, the data have bearing on the phenomenon of "embedded announcements," long a thorn in the side of the conventional presuppositionality view. Finally, they will allow us to see a variety of additional discourse functions which embedding verbs can play, other than evidentiality. We will see, though, that the functions which may be served by a particular predicate depend upon its ordinary lexical content, which supports the non-ambiguity position developed in section 2.

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[16] Hooper 1975 already observed that there are cases in which the complement of a p-factive predicate has main point status, and that this is a problem for the assumption that these predicates are inherently presuppositional.

3.2.   Evidential uses of factives

The examples below demonstrate evidential uses of a selection of p-factive predicates:

(21)   Where did Louise go last week?

    a. Henry discovered that she had a job interview at Princeton.

    b. Henry learned that she had a job interview at Princeton.

    c. Henry found out that she had a job interview at Princeton.

(22)   How will Louise get to the picnic?

    a. Henry realized that she can take a bus.

    b. Henry figured out that she can take a bus.

In these examples, as in those considered in section 2, the proffered answer to the question is contained in the embedded clause. The content of this clause is being presented as new and main point information, and is clearly not being treated as common ground.

It is well known that in some cases, a speaker can exploit presuppositionality in order to convey some information without directly asserting it. In these cases, a presupposition might become the main point of an utterance. Consider, for instance, the following well-worn example:

(23)   A: The new guy is very attractive.

    B: Yes, and his wife is lovely too.

The standard story about this example goes as follows: B's utterance presupposes (and does not assert) that the new guy has a wife. By producing this presupposing utterance, B is acting as if she believes that proposition to be part of the common ground. The pretense is intentionally transparent, and has the result that A comes to believe that the new guy has a

wife. And under easily imaginable circumstances, B might well intend this as the main point of her utterance.

Examples such as these show that what is presupposed *can* be the main point of an utterance.[17] So we might consider that, in examples (21)-(22), the complement is presupposed even though it constitutes the main point of the utterance. But it is rather clear that these examples are quite different from (23). In (23), the assertion in fact could be the main point; it is relevant to the previous comment in an obvious way. In the discourse situation in which the presupposition were understood to be the intended main point, it would be obvious that B intends to be indirect. But in (21)-(22), there is no option but to take the embedded clause content as main point. In these examples, there is simply no way to explain the actual communicative effect by assuming that the speaker is engaging in a transparent pretense that the content of the complement is part of the common ground. So, we must conclude that in these cases, the complement indeed is not presupposed.

It is also well-known that the expected presupposition of a p-factive predicate will sometimes fail to materialize when the predicate occurs embedded under an entailment cancelling operator.[18] This is generally explained in terms of an incompatability between the expected presupposition, and some standing background information or a conversational implicature. Consider, for example, the following sentences:

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[17] Simons 2004 introduces a distinction between the *ostensible main point* of an utterance and its *intended main point* to deal with such cases.

[18] Following Karttunen 1971, it is standard to distinguish between "robust" factives and semi-factives, with the latter class taken to consist of those p-factives which show variable presuppositional behavior under embedding. However, some more recent work calls this distinction between semi-factives and factives into question. (See, in particular, Beaver 2002.) So, although the predicates discussed in this section are all generally classified as semi-factives, I don't put any weight on this distinction here.

(24)   If Henry discovers that Louise is in NY, he'll be furious.

(25)   Why is Henry in such a bad mood? Did he discover that Louise is in NY?

(26)   Henry is in a terrible mood. Perhaps he's discovered that Louise is in NY.

It is standardly noted (see, e.g. Chierchia and McConnell-Ginet 2000) that sentences such as these, where the factive is embedded in the antecedent of a conditional, in a question, and under an epistemic modal, respectively, can be uttered both by a speaker who believes that Louise is in NY (and believes that his interlocutors believe this too); and by a speaker who has no idea about Louise's whereabouts.[19] Thus, in this environment, the complement of *discover* is not necessarily presupposed.

But it is also the case that in these examples, if we read the sentences as carrying no factive *presupposition*, we must also read them as carrying no factive *entailment*. That is, on one way of taking the sentence, the speaker seems to take for granted that Louise is in NY; on this reading, the utterance commits the speaker to the truth of the complement, and indicates that she presupposes it. On the other way of taking the sentence, the speaker does not treat it as common knowledge that Louise is in NY; but on this reading, there is no commitment whatsoever on the part of the speaker that Louise is in NY.

But the examples in (21)-(22) are different. The factives predicates are not embedded here, and so consequently the speaker *is* committed to the truth of the complement proposition. However, as we have already observed, none of the other characteristics of presuppositionality are preserved. In particular:

(a) The speaker does not take the complement proposition to be common ground.

(b) There is no pretense that the speaker takes the complement proposition to be common ground.

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[19]   As Beaver 2002 points out, the 'ambiguity' may be elimininated in speech by intonation patterns.

(c) It is not necessary for a hearer to accept the complement proposition *prior* to accepting or rejecting the main point proposition: this precisely *is* the main point proposition.[20]

So, going by the simplest intuitions concerning what it is for a proposition to be presupposed, these appear to be non-presuppositional uses of factives which are *not* coupled with an elimination of the factive entailment.

In the case of evidential uses of non-factive embedding verbs, as discussed in Section 2, the speaker does not necessarily take on any commitment to the truth of the complement proposition if the main clause predicate is not first person, or is not present tense:[21]

(27)   Henry believes that Louise left town (but he's wrong).

(28)   I once believed that some wars are just (but I was wrong).

So why, when a speaker uses a factive evidentially, does she take on a commitment to the truth of the complement? This must be a consequence of the lexical meaning of the verbs.

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[20] In making this point, I'm addressing the proposal in Stalnaker (2002) as to how to think about informative presuppositions: cases where a piece of new information is introduced via a presuppositional expression. Stalnaker proposes that presuppositions are required to become common ground at some point, possibly after the utterance has been made, but before "it has been accepted or rejected." (fn.14). But in our cases, as the embedded clause has main point status, acceptance or rejection of the utterance would seem to be constituted by acceptance or rejection of the embedded clause content.

[21] Cf. Urmson (1952: 492): "What is said to be supposed, regretted, believed etc., by others, or by oneself in the past, is not in general implied to be true or reasonable by the speaker (there are exceptions to this, in each case with a special reason, *know* being an obvious example)."

An agent can discover *p* only if *p* is true. Now, given that a speaker should assert only that for which she has adequate evidence, it follows that a speaker should assert that *x* discovered *p* only if she is certain that *p* is true. For only under these circumstances can she be certain that *x* discovered it.

Here is a final illustration of the fact that even in their evidential uses, factives maintain their factive entailment. Compare examples (29)a-b. with examples (18)a-b., repeated from above.

(18)   Which course did Louise fail?
        a. Henry, the idiot, thinks she failed calculus.
        b. Henry, entirely wrongly, is convinced that she failed calculus.

(29)   a. Henry, the idiot, discovered that she failed calculus.
        b. #Henry, entirely incorrectly, realized that she failed calculus.

As we noted, the utterances in (18) can be used to convey simultaneously that Henry believes that Louise failed calculus, and that this is not true. But this is not possible with the examples in (29). Sentence (29)a. says that Henry is an idiot, but also entails that Louise failed calculus. (29)b. is simply anomalous. The bottom line is that the use of the factive predicate indeed does commit the speaker to the truth of the complement clause.

3.3.   *Evidential* know

I discuss *know* separately, because its parenthetical usage is somewhat different from that of the other factive verbs discussed. Note first that unmodified *know* does not immediately seem to lend itself to an evidential use:

(30) A: Where was Louise yesterday?

  B: I know / Henry knows that she was in Princeton.

But consider a minor variant on this example:

(31) A: Where was Louise yesterday?

  B: I know from Henry that she was in Princeton.

This is much better. Moreover, the evidential function of the embedding clause is clear. It identifies Henry as the source of the information, while indicating (with *know*) a strong degree of commitment to the truth of the embedded claim.

   The contrast between (30) and (31) suggests that bare *know* cannot have a purely evidential reading. But further examples undermine this idea too. The following, for instance, seems very natural. Suppose that we are in a restaurant, and you notice that I keep staring at a diner at another table. Finally I say:

(32) I KNOW I've run into that guy somewhere, but I can't for the life of me think where it was.

(The capitalization of *know* is to indicate that, for me at least, this would be most natural with heavy stress on this verb; however, see the appendix for examples where this is not necessary.) In the context, an utterance of (32) might well be more natural than utterance of the same sentence without *I know*. However, *I know* doesn't seem to add to the communicated content. Rather, by prefacing the (main point) claim with *I KNOW...*, the

speaker makes explicit her strong commitment to the truth of that claim.[22] The emphatic stress may serve to bring out the implicit contrast with weaker degrees of commitment.[23]

There is another type of parenthetical use of *know*, illustrated in (33):

(33)   A: Is Henry coming to the meeting tonight?
        B: a. Well, I know that his wife is.
              b. Well, I know that he was working in Cleveland today [so he might not make it].

Here again the clause embedded under *know* has main point status. (Note that, *Well, his wife is* would be an answer virtually equivalent to a.) In light of the unacceptability of (30) above, it is somewhat puzzling why these are allowable. One clue may lie in the fact that the responses offered here are not direct answers to the question asked.[24] Rooryck 2001 observes that the verb *know* occurs in the parenthetical *y'know*, which he glosses as a marker of current relevance. Similarly, one might gloss the (a) answer above as:

"I don't know the answer, but here is a relevant fact which I do know: his wife is coming to the meeting."

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[22] An anonymous reviewer offers an alternate interpretation of this example, suggesting that "the main point of the utterance in this case is the speaker's feeling of knowledge, without the customary cognitive basis for knowledge – that is, memory of the prior event. Hence the stress on *know*."

[23] Here I am assuming, following Rooth (1985, 1992), that focus serves to introduce sets of alternatives.

[24] Hence, the *well*, which, following Schiffrin 1987, I take as an indicator that what follows is a less than maximally coherent response.

If this is correct, then *I know* is not functioning here as an evidential, but has some other discourse function beyond the simple expression of propositional content. We return to other such cases below.

But first, let us try to find an answer to the following question: If *know* can be used parenthetically, and in some cases with an evidential function, why is (30) ruled out? I would suggest that the answer is simply that evidential *know* is not informative in this environment. Consider first the first person case, repeated here:

(34)   A: Where was Louise yesterday?
         B: I know that she was in Princeton.

Suppose that speaker B had said *She was in Princeton*. Then she would have asserted that Louise was in Princeton; and having asserted it without any qualification, would be strongly committed to the truth of that assertion.

Now, what is the effect of evidential *know*? Presumably, to indicate strong commitment to the truth of the embedded proposition. But this effect is redundant in the case at hand. Therefore, an interpreter, looking for a non-redundant interpretation, will take the main clause content (i.e. the knowledge claim) as the main point.[25]

In the discussion so far, I have been assuming "neutral" intonation for B's utterance in (34). The utterance could be rendered more natural by a change in intonation. For example, suppose we have intonation indicating a tentative utterance (for me, this would involve a rise-fall on *Princeton*), perhaps accompanied by an initial *well*. Then we have a case similar to (33) above. The overall effect of the utterance could be glossed as:

"Louise was in Princeton; I know this is true, but I don't know what she was doing there, which is probably what you really want to know."

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[25]   This still leaves the acceptability of an evidential reading of (32) and the related examples in the appendix as something of a puzzle.

Thus far we have argued that the difficulty of obtaining a main point reading for a clause embedded under *know* with a first person subject is that the evidential reading of *know* would be redundant. Hence, a non-evidential reading is preferred. What about the case of a third person subject, as in (35)a.? Here, we have to consider the contrast with the successful (35)b.

(35)   Where was Louise yesterday?
     a.   ??Henry knows that she was in Princeton.
     b.   Henry believes that she was in Princeton.

As we have already discussed, (35)b. is a way of proffering the proposition that Louise was in Princeton as an answer to the question, while indicating very weak commitment to its truth. This is because the speaker doubly distances herself from such a commitment. She attributes the claim to a third part (Henry), while indicating that even he is only weakly committed to its truth: he merely believes it. Hence, the parenthetical use of *Henry believes*.. has a definite effect on the communicative value of the utterance.

But what about (35)a.? Because *know* is factive, the speaker commits herself to the truth of the complement whether or not *know* is interpreted parenthetically. The attribution of this same commitment to a third party does not add to this effect. So if the main point is contained in the complement, the use of *Henry knows*... is again redundant. Once again, then, an interpreter will tend to prefer a non-evidential interpretation for the main clause.

Note the very different effect of a second-person subject in the same environment:

(36)   A: Where was Louise yesterday?
     B: Y'know she had to go to Princeton.

This is a way of giving *She was in Princeton* as an answer, while also indicating that this is something the questioner already knows, or should already know.

The point of this extended discussion of *know* is to show that various parenthetical readings of this verb are possible. When used parenthetically, the verb maintains its factive entailment, but ceases to be presuppositional.

3.4. Other factives

The discussion above illuminates the fact that the ordinary lexical content of a predicate constrains its possible parenthetical uses. With this in mind, let's look at some cases where an evidential reading of a factive seems to be ruled out. Consider:

(37) Where did Louise go yesterday?
   a. #Henry forgot that she went to Princeton.
   b. #Henry remembered that she went to Princeton.
   c. #It's odd that she went to Princeton.

In each of these cases, the lexical content of the main predicate seems to exclude an evidential reading. Beginning with the *forgot* case: If Henry has forgotten that Louise went to Princeton, then it is hard to see how he could be the source of the information that she did. The *remember* case is less obvious. My hunch here is that the predicate gives us too much detail about the subject's epistemic relation to the embedded proposition for it to have a purely evidential function. *It's odd that...*, on the other hand, just doesn't have any evidential content at all.

It is not hard, however, to find other cases where the clause embedded under one of these verbs can have main point status:

(38) Yikes! I just remembered/realized that I didn't turn off the stove!
(39) Sorry, we're going to have to change our plans for dinner tonight.

a. Henry forgot that he has an evening appointment.

b. Henry just realized/remembered that he has an evening appointment.

In these cases, the main verb doesn't have an evidential function, but does seem to have some kind of utterance modifier or discourse coherence function. For example, (38) seems to have an effect along these lines:

"I didn't turn off the stove; and the reason I'm saying this out of the blue is that I just remembered/realized it."

Similarly, the effect of (39)a. might be glossed as follows:

"We can't come to dinner because Henry has an evening appointment; and the reason I didn't tell you until now is that Henry forgot about it."

This collection of examples suggests that an embedded clause can have main point status whenever the main clause predicate can be interpreted as doing something other than – or perhaps, in addition to – conveying what we might call 'informational content'.

3.5.   *Embedded announcements*

There is another familiar case where the complement of a factive verb has main point status. This is the case of embedded announcements, as in (40)-(43):

(40)   We regret that children cannot accompany their parents to commencement exercises. (Karttunen 1974: ex.26a.)

(41)   We regret to inform you that your insurance policy is hereby cancelled.

(42)   I'm afraid that your insurance policy has been cancelled.

(43)   We are pleased to announce that your visa has been renewed.

Such cases have been the subject of a fair amount of discussion, because, like the other cases of discussed here, they seem to challenge the claim that certain factive verbs are conventionally presuppositional in the sense of requiring their complement to be (treated as) common ground. Responses to this challenge generally observe that these are polite forms, and propose that they involve some kind of pretense, on the part of the speaker, that the main point is other than it actually is. Abbott (2000) advocates a treatment along these lines. She claims that in examples like (41), "the form of utterance...presents the regret as what is being asserted,"[26] although real world knowledge tells us that "the fact that an insurance policy is cancelled is much more important than the fact, or pretense, that the insurers are unhappy about the cancellation" (1430). So, the suggestion goes, real world knowledge allows the interpreter to identify a main point which is 'concealed' by the grammatical form.

However, we have by now seen a host of examples of sentences which easily allow for a main point interpretation of their embedded clause, and without any sense that some pretense – even a transparent one – is involved. It would seem most natural to consider embedded announcements as another such case, and to deny that the complement clauses are in any sense presupposed. This suggestion is, I think, reinforced by the observation that the main verbs in (40)-(43) appear to serve the same function as the parentheticals and adverbials in the following, cases which Rooryck calls *surprisals*.

(44)   Regrettably, children cannot accompany their parents...

(45)   Your insurance policy has been cancelled, I'm afraid.

(46)   Your visa has been renewed, we are pleased to inform you.

In light of the data presented here, then, it is rather clear that embedded announcements are not an anomaly. They are rather one of many cases where a predicate which is in some cases presuppositional turns out not to be in a particular discourse environment.

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[26] Note here Abbott's conflation of what is asserted with what is main point.

4. General conclusions for the study of presupposition

The primary moral of the story told here is straightforward: whether or not the complement of an embedding verb is understood as presupposed depends upon how the sentence in question in used. This adds to a body of evidence against the view that presuppositions are conventional properties of sentences. It suggests instead that presuppositions, whatever exactly they may be, are the result of conversational factors.

One way to maintain the claim of conventionality would be to posit that embedding verbs show a systematic ambiguity between two interpretations, one the 'ordinary' and presuppositional meaning, and the other the evidential and non-presuppositional meaning. I argued against this view in section 2. In further support of the non-ambiguity position, we have noted above that the evidential or other parenthetical uses available for a particular verb depend upon its ordinary truth conditional content. Thus, for example, *know* does not have the same evidential uses as *believe*. Certainly, the most economical account of this observation would be to say that there is a single verb, with a single lexical content, which can be used in different ways.

A second kind of ambiguity option is available within the articulated syntax approach discussed above. As noted, on this view one can posit that when embedding verbs are used parenthetically, they occupy the head of a dedicated functional projection, Evidential Phrase. Rooryck 2001, in offering such an analysis for syntactic parentheticals, suggests that the syntactic position itself might "filter" the semantic content of items it contains, allowing only those aspects of their content compatible with an evidential interpretation to survive. One might posit that presuppositionality is one of the semantic features filtered by the Evidential head, and hence account for the elimination of presuppositionality without positing a lexical ambiguity. However, the Kripke argument given in section 2, along with some other observations, tells against positing even a syntactic ambiguity for the majority of cases considered here. Moreover, if we consider this proposal from the perspective of the

interpreter, it again becomes unclear what work it does. For given that the interpreter is faced with an ambiguous string, she must use pragmatic considerations to disambiguate. And, as argued above, the very considerations which would be needed to resolve the purported ambiguity would suffice to account for the evidential interpretation of the verb and, quite plausibly, for the status of the complement as non-presupposed.

An alternative strategy conventionalists might adopt to account for these non-presuppositional uses of purportedly presuppositional verbs is to utilize the notion of local accommodation. According to satisfaction theories of presupposition (e.g. Heim 1983, 1992), the presuppositionality of a factive consists in a formal requirement that the content of its complement be entailed by the context to which the asserted proposition is added. According to the presupposition-as-anaphora theory of Van der Sandt (1992), presuppositionality consists in a requirement that the content of the complement have an anaphoric antecedent in the Discourse Representation Structure to which it is added. In both theories, the requirements may be fulfilled via accommodation, a process whereby the necessary updates are made (in some sense) prior to processing of the presupposing sentence. If presuppositions are accomodated into the immediate, local context which is to be updated by the utterance, rather than to the global context, then the presupposition is not construed as a commitment of the speaker, and the utterance acquires a non-presuppositional interpretation. This is the standard account, in such frameworks, for cases of non-projection of presuppositions. One might attempt to account for the lack of presuppositionality in the case of evidential uses by positing that in all such cases, local accommodation is required.[27] But to do this would be to disconnect accommodation, and therefore presupposition, from intuitions of backgrounding,

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[27] Actually, I am not quite sure that this would even be possible. In the case of factive evidentials, the content of the complement clause does become a commitment of the speaker, therefore must (in the theories under discussion) be entered into the global context. So it is not clear that there is a local context available for accommodation.

being taken for granted, and so on. And this would seem, in turn, to undermine the appeal of such theories.

So, do these data have any positive lessons for the study of presupposition? They are at least suggestive that presupposition is closely related to more general issues of information structure; that part of recognizing what is presupposed is recognizing what is being offered as main point content. This conclusion echoes that of Beaver 2002, who similarly suggests that the interaction between presuppositionality and topic/focus structure may be of more importance than has been recognized to date.[28]

Along these lines, Abbott 2000 proposes that the presuppositions (of an utterance) are non-main point propositions conveyed by the utterance. The examples discussed here are, at first blush, counterexamples to this claim: In our cases where the embedded clause has main point status, there is no intuition that the remaining, non-main point content is presupposed. But perhaps there is a difference between my cases, and those which Abbott discusses. Consider one of the (many) sorts of cases which Abbott discusses: the case of non-restrictive relatives:

(47)   Jane, who once supported the Republicans, is now a committed Democrat.

The relative clause seems to be a vehicle for informational content, just like the main clause. The distribution of information between a relative clause and a main clause gives the hearer information as to what is main point, and what is backgrounded. But perhaps it is only because both clauses convey the same kind of content that this relation of foregrounding and

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[28]   Beaver also mentions some recent work by Spenader (2001, 2002) which is of relevance here. Her study of naturally occuring p-factives in the London-Lund corpus showed that more than half of the time, these predicates were used when the complement had not previously been established to be true. I have not yet been able to read this work, but the conclusions reached here are in line with Spenader's observations.

backgrounding can hold. In the cases of utterances with parenthetical verbs, I have suggested that the situation is different: the two clauses convey two different types of content. Hence, there is no need, as it were, to treat the content of one as foreground, and of the other as background; in fact, there is perhaps no sensible way to do this. Hence, we get no presuppositional effects in this case. The substantive proposal being made here is that the presupposition/assertion distinction can hold only between sentence contents of the same sort. But as sentences can convey different types of content, we may find – as we seem to do here – cases where the main point/non-main point relation does not map onto the assertion/presupposition relation in a straightforward way.

5. Appendix

While I've suggested that the phenomenon of parenthetical uses of verbs is widespread in ordinary spoken language, all the examples I have given above are constructed. To reinforce my claims, I give below some examples of the phenomenon culled from two corpora: the Santa Barbara Corpus of Spoken American English and the Corpus of Spoken Professional American English. (Selections from each corpus are indicated as SBC and SPAE, respectively.) I present the examples in three sets, to correspond with the discussion above: non-factives, factives other than *know*, and *know* itself. In the latter two cases, I have selected examples where the embedded clause is clearly not presupposed. In each example, I give the relevant verb in bold face. I have tried to give enough of the context for it to be clear that the main point of the relevant utterance resides in the embedded clause, but in some cases this isn't feasible, as the chunk of discourse over which the point is made is too long. In one or two places, I have deleted some of a speaker's utterance, or intervening utterances by other speakers, where these are distractions. I indicate these deletions with the symbol +++. I have also deleting coding of pauses and so on to increase readability.

5.1. *Non-factives*

Example 1 (SBC)

MILES: This infectious disease woman, +++

MILES: at San Francisco General,

PETE: Mhm,

MILES: she **said** that, ... this doesn't seem like it can be true, but she **said** that, ... ninety

         per cent of gay men, ... are HIV positive, ... and fifty percent of a=ll males, ... are

         HIV positive.

Example 2 (SBC)

HAROLD: See I'd **heard** that it was mainly, +++

HAROLD: in .. t's mainly urban areas,

PETE: Yeah.

HAROLD: that had this really ... disproportionately high= .. propor-

            ... um, ... percentage.

Example 3 (SBC)

DORIS: ... Well,

              .. maybe we've talked for forty-five minutes.

SAM: ... I don't know whether it's to go off,

         or not.

ANGELA: ... Does it automatically go off at the end [of] --

DORIS: [I **thought**] it did.

5.2.   Factives other than know

Example 1 (SPAE)

It's also the case that in reading over the summary of the last meetings which is under tab F, I believe, we **discovered** that we had such a good summary of the meeting that there are some things in the summary that haven't been yet transferred to the document.

Example 2 (SBC)

So I'm driving up to the house, ... and there's a car in front of me, and the guy is just like sitting there, and, .. you know I wanna park the [car] +++ you know, and th- -- there's no .. parking either, on one of those sides, because it's street sweeping day, or something, it's like, .. Would you mo=ve, so I= can come park my car. (H) And then I **realized**, it's ~Liza and ~Antonio.

Example 3 (SBC)

I think it's important. .. Because, ... I mean I **realized**, .. that I'd never seen the bylaws, .. since I was [on the board] until .. I asked for a copy.

Example 4 (SBC)

REBECCA: well tell me about the ... year ago incident.

RICKIE: .. U=m,   .. that one was at night time. ... And, um, I was working la=te, and it

                        was around, .. I **remember** I used to get off ar- around nine,

5.3.   Parenthetical use of know

These deserve brief comment. In the Corpus of Spoken Professional American English I found frequent occurrences of what I take to be evidential uses of *know*, such as I discussed on p.26 above. When I originally thought about these cases, I was a little uncertain about the

reliability of my intuition that such uses are possible. But it is clear from the corpus that they are. Note also that although the examples below are all taken from a transcript of one meeting, each is from a different speaker.

Example 1 (SPAE)

And my understanding was that that's why we were going to have the supplementary materials to show what the implications for instruction might be. I think most of us sitting around this table could very comfortably look at the stances and mold that and put that into instruction. But **I do know**, having worked with a variety of teachers, that many times that just by looking at an assessment, they can't then change it and mold it into what they see as instruction.

Example 2 (SPAE)

I'm very concerned about the notion of individual assessment and the ease with which it can slip into diagnosis and immediate recommendations for what can happen in the classroom. Diagnostic tests are very, very different. And **I know** because we know this from many tests in the past that tests that were meant only to provide aggregate scores were in fact very often used for all good reasons with intentions by districts and teachers to try to make diagnosis implications, inferences from them.

Example 3 (SPAE)

A couple of years ago Michael Luger in City and Regional Planning did an economic analysis, and he's updated it. And basically what **we know** is that for every dollar the State gives to support the University at Chapel Hill, we generate another three to four dollars for the State.

Example 4 (SPAE)

It's been my experience that quite often, we as -- we who are in the classroom as a teacher, we have our little pet curriculums, things that we like to do, little topics of whatever it happens to be. I **know** that in our state, in the state of Colorado, one of the things that we are working on right now is meeting standards and benchmarks for curricula.

Example 5 (SPAE)

MILLER: How do we motivate eighth grade students?

BERRY:Well, if I had that answer, I would be on the road. (Laughter)

BERRY:You know, I really don't have a simple answer for that one. I **know** that there have been some suggestions from NCTM to consider perhaps a presidential scholar, you know, kids who do well.

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Abstract

This paper discusses the semantically parenthetical use of clause-embedding verbs such as *see, hear, think, believe, discover* and *know*. When embedding verbs are used in this way, the embedded clause carries the main point of the utterance, while the main clause serves some discourse function. Frequently, this function is evidential, with the parenthetical verb carrying information about the source and reliability of the embedded claim, or about the speaker's emotional orientation to it. Other functions of parenthetical uses of verbs are discussed.

Particular attention is paid to the parenthetical uses of verbs which are standardly assumed to require their complements to be presupposed. It is demonstrated that when so used, these verbs are in no way presuppositional; that is, there is no presumption, or even pretense, that their complements have common ground status. It is further demonstrated that this loss of presuppositionality is *not* accompanied by a lack of commitment on the part of the speaker to the truth of the complement, as in the standard cases of non-presuppositional uses of these predicates. It is argued that this non-presuppositional use of factive verbs provides support for the (minority) view that presupposition is not a conventional property of lexical items.

Keywords