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## Focus, pragmatic presupposition, and activated propositions<sup>☆</sup>

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## Abstract

Although it is widely recognized that differences in focal accent represent what are in some sense differences in what is given and what is new, there remains considerable confusion in the literature as to what the relevant notion of 'given' is. This paper argues that when one distinguishes 'given' in the sense of 'presupposed' from 'given' in the sense of 'activated' (in the mind of the hearer), it becomes clear that it is the latter rather than the former which characterizes the complement of focus. While there is literature that assumes this position, there is a considerable body of literature that assumes that the relevant notion is in fact presupposition and little explicit argumentation that it is *not* presupposition. In addition, some of the literature that recognizes the relevance of activation mistakenly assumes that something that is activated is necessarily presupposed. The reason for this is that much of the literature ignores the distinction between prepositions which are mentally represented and propositions which are believed.

## 1. Introduction

Different notions have been appealed to in describing the differences in meaning between the sentences in (1), distinguished in form solely by the placement of focal accent.

- (1) (a) MARY saw John.
- (b) Mary SAW John.
- (c) Mary saw JOHN.

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On the terminology of Chomsky (1972) and Jackendoff (1972), these sentences differ in terms of the location of *focus* and *presupposition*. On the terminology of others (e.g. Halliday, 1967; Chafe, 1976; Clark and Haviland, 1977: 11; Cruttenden, 1986: 88), they differ in terms of what is *given* and what is *new*, the constituent with focal accent being new, the remainder being given.

But the situation is confused because of the fact that different people use the terms *given* and *presupposed* in different ways. The central distinction to this paper is the distinction between what I will call *pragmatic presupposition* and *activation*, similar to two notions of givenness discussed by Prince (1981a). I examine what I will call *simple focus* sentences in English, in which the focus is indicated solely by intonation, as in (1), as opposed to sentences like cleft sentences, in which there is additional morphosyntactic material marking the focus. I will employ the term *nonfocus* to refer to the portion of simple focus sentences which is not focused (e.g. *saw John* in (1a)). I thus use the terms *focus* and *nonfocus* simply as labels for parts of sentences characterized by their form, without commitment to what pragmatic notion characterizes them. The question I address is that of what pragmatic property characterizes the nonfocus. The goal of this paper is to argue that while it may be pragmatic presupposition that characterizes the nonfocus in cleft sentences in English, it is activation rather than pragmatic presupposition that characterizes the nonfocus in simple focus sentences. The claim that it is not pragmatic presupposition that characterizes the nonfocus in simple focus sentences in English is not an original one; it is made explicitly, for example, by Chafe (1976), Cruttenden (1986: 88), Myhill (1992: 23), Rochemont (1986: 41–46), and Vallduví (1992: 38, 113).<sup>1</sup> But there are many instances in the literature where it has been claimed or assumed that nonfocus involves pragmatic presupposition (or an apparently equivalent notion), including Atlas and Levinson (1981: 17), Chierchia and McConnell-Ginet (1990: 37), Clark and Haviland (1977: 11), Dik (1978: 149–151), Gundel (1985: 97; 1988: 41, 112), Kempson (1975: 50–51, 191–192), Levinson (1983: 183), van der Sandt (1988: 9), von Stechow (1981: 104–105), and Wilson and Sperber (1979: 316–317). Others recognize the relevance of activation, but apparently fail to recognize the irrelevance

<sup>1</sup> Those who have made claims similar to those made in this paper have either not argued against the role of presupposition or have not made exactly the same claim. Cruttenden, for example, while explicitly claiming that nonfocus involves activation, makes no mention of the fact that others have characterized the nonfocus in terms of presupposition. Rochemont specifically denies that nonfocus involves presupposition, but argues that it involves, not activation, but a notion of his own that he calls *c-construal*. I discuss Rochemont's claims in section 8.2 below. The claims by Chafe (1974, 1976) are the closest to those of this paper, but Chafe specifically excludes what he considers contrastive uses of focal accent from those which he considers to mark 'new' information or inactive concepts. Many of the examples that I use as the basis of the arguments in this paper are in fact ones that he would consider contrastive. While a number of other people also draw a sharp distinction between contrastive and noncontrastive uses of focal accent (e.g. Gundel, 1994), I will ignore the possibility of such a distinction for two reasons. First, I believe that there are many problems associated with this distinction (cf. Lambrecht, 1994), but these issues are orthogonal to the claims of this paper. And second, much of the literature that I am addressing here, which claims that nonfocus is associated with presupposition, also ignores the distinction and often bases its claims on contrastive cases. My claim that nonfocus is associated with activation is intended to be true of nonfocus in general, regardless of whether the utterances are contrastive or not.

of pragmatic presupposition, including Lambrecht (1986, 1992, 1994) and Prince (1985). In addition, the literature on the subject remains very confused and, apart from some discussion, most of it fairly brief, by Chafe (1974, 1976), Erteschik-Shir and Lappin (1983: 421), Rochemont (1986: 41–46), Vallduví (1992: 38), and Ward (1988: 71), there is little explicit argumentation in the literature that nonfocus does *not* involve pragmatic presupposition.<sup>2</sup>

The primary claims of this paper are restricted to the properties of simple focus sentences in English, although I will also compare the properties of such sentences to those of cleft sentences in English, arguing in fact that what characterizes the non-focus in simple focus sentences in English is in fact pragmatically different from what characterizes the nonfocus in cleft sentences. I will not discuss a phenomenon to which the term 'focus' is often applied, and which is widely assumed to be an instance of the same general phenomenon illustrated by simple focus (e.g. Jacobs, 1991; Jackendoff, 1972; König, 1991; Krifka, 1992; Rooth, 1985), namely the semantic relation between various so-called 'focus' words, like *only* and *even*, and the parts of a sentence with which they are associated.<sup>3</sup>

## 2. Pragmatic presupposition

The first notion that I will discuss is that of *pragmatic presupposition*. There has been an extensive literature on presupposition over the past twenty-five years (cf. Soames, 1989; van der Sandt, 1988), and a variety of different positions have been

<sup>2</sup> It is also the case that it is generally unclear when the term *focus* is used in the description of languages other than English whether the nonfocus in the construction in question involves pragmatic presupposition or not, even when an explicit claim is made that it does. For example, Aissen (1992) claims that nonfocus in Mayan languages involves presupposition; but given the frequency in which this claim has been made with respect to the nonfocus in the simple focus construction in English (an incorrect claim according to this paper), it is difficult to know whether the Mayan construction really does involve pragmatic presupposition or not.

<sup>3</sup> The difference between (i) and (ii) involves both a formal difference in placement of focal accent, and a semantic difference involving which expression the word *only* is associated with.

(i) John only introduced Bill to Sue.

(ii) John only introduced Bill to SUE.

While the expression associated semantically with *only* typically corresponds to the focus in the sense of this paper, it has been shown by Vallduví (1992: 142–151) and Dryer (1994) that this is not necessarily the case and that the two phenomena must be kept distinct. In (iiiB), for example, the only sensible interpretation is one in which the expression associated with *only* is a *book* (indicated in square brackets), but the focus is *many people*.

(iii) A: I hear that John only gave A BOOK to Mary.

B: True, but John only gave [a book] to MANY PEOPLE.

Similarly, the context provided by (ivA) makes it clear that the expression associated with *only* in both clauses in (ivB) is *Bill*, but the foci of the two clauses are *Sue* and *Cathy*.

(iv) A: Is it true that there is nobody that John introduced only [BILL] to, that he introduced someone other than Bill to everybody?

B: No, John only introduced [BILL] to SUE and he only introduced [BILL] to CATHY.

Much of the literature referring to 'focus' deals, not with focus in the sense of this paper, but with these semantic associations of expressions with words like *only* (e.g. Krifka, 1992, 1993; Partee, 1991).

taken on such issues as whether there is a phenomenon of semantic presupposition distinct from pragmatic presupposition (cf. Kempson, 1975; Burton-Roberts, 1989) and what is the proper account of presuppositional phenomena (cf. Gazdar, 1979; Karttunen and Peters, 1979; van der Auwera, 1979; Wilson, 1975; Wilson and Sperber, 1979). But there is a fairly wide consensus among many people regarding the nature of *pragmatic* presupposition. A pragmatic presupposition can be loosely characterized as a proposition that is considered part of the *common ground*, the set of propositions that the speaker of an utterance believes and assumes the hearer to believe as well. Stalnaker (1974: 199) notes that "communication, whether linguistic or not, normally takes place against a background of beliefs or assumptions which are shared by the speaker and his audience, and which are recognized as such". According to Chierchia and McConnell-Ginet (1990: 281), "the main empirical characteristics of presuppositions can be taken to be the following two: being backgrounded and being taken for granted". They later (ibid.: 290) characterize presuppositions as being "treated as if they were mutually believed" by the speaker and hearer, though they stress that it is not necessary that they actually believe the proposition that is presupposed, a distinction that is ultimately important but which I will gloss over here. Similarly, Karttunen and Peters (1979: 13-14), while arguing that many instances of what have been called presuppositions are really conventional implicatures (cf. Grice, 1975), argue that such implicatures "ideally ought to belong to the common set of presumptions" that make up the common ground. Levinson (1983: 205) offers the definition of pragmatic presupposition given in (2).<sup>4</sup>

- (2) An utterance A *pragmatically presupposes* a proposition B iff A is appropriate only if B is mutually known by participants.

As is often noted, the notion of presupposition gained prominence specifically with the presuppositions involved in definite descriptions that formed a large part of the objections by Strawson (1950) to Russell's (1905) theory of definite descriptions. Thus (3b) and (4b) are presuppositions of (3a) and (4a) respectively.

- (3) (a) The present King of France is bald.  
(b) France presently has a king.  
(4) (a) The woman John met in Chicago has gone home.  
(b) John met a woman in Chicago.

I assume, hopefully uncontroversially, that these are instances of pragmatic presuppositions: these are propositions which the speaker uttering these sentences will nor-

<sup>4</sup> This definition ignores the effect of accommodation, discussed by Lewis (1979) and below in section 6, by which an utterance A pragmatically presupposing a proposition B may be appropriate despite not being known or believed by the hearer, where the hearer is expected to 'accommodate' the intended presupposition. I assume that definitions like that in (2) apply to a level of idealized usage factoring away the effects of factors like accommodation and nonliteral usage.

mally not only believe but believe the hearer believes as well.<sup>5</sup> Pragmatic presupposition is also involved in cleft and pseudocleft sentences; (5a) is normally only appropriate in contexts in which the speaker assumes that the hearer believes the proposition expressed by (5b).<sup>6</sup>

- (5) (a) It was Mary that John saw.  
(b) John saw someone (or something).

The expression *given information* is also used by some as a label for pragmatic presuppositions or parts of sentences that are associated with pragmatic presuppositions. But as Prince (1981a) observes, the term *givenness* has been used in the literature as a label for two distinct notions, characterized by her as in (6).<sup>7</sup>

<sup>5</sup> As noted in the preceding footnote, this ignores the fact that sometimes the speaker will not believe that the hearer believes the proposition in question but will assume that the hearer can accommodate the presupposition.

<sup>6</sup> Prince (1978) shows, however (cf. also Hedberg, 1990; Delin and Oberlander, 1995), that there is a class of cleft sentences distinct in their intonational properties which do not presuppose the *that*-clause, but rather assert it, as in (i).

(i) It was just about 50 years ago that Henry Ford gave us the weekend.

My references to cleft sentences in this paper should be assumed to be restricted specifically to cleft sentences in which the subordinate clause is presupposed. Two points should be observed, however. First, Prince herself did not deny that sentences like (i) presuppose the subordinate clause; she in fact characterized such sentences as involving 'informative presupposed' clauses. Her use of the term *presupposition* here apparently reflects her assumptions at that time that presupposition was a semantic notion rather than a pragmatic one (cf. footnote 12, p. 899). Second, it is not clear to me whether we really have two distinct uses of cleft sentences rather than the observation that in some contexts the cleft construction involves pragmatic presupposition and while in others it does not, in which case it is not a property of the *construction* that it involves pragmatic presupposition; I will follow Prince's position here, however, assuming that there is a distinct cleft-construction that does presuppose the subordinate clause. Delin (1992) also discusses cleft clauses in which the cleft clause is informative, also describing them as presupposed, but not given. She apparently is also using the term 'presupposition' to mean semantic presupposition, in the sense that the proposition in question is not negated in a negated cleft-sentence, and she is apparently using the term 'given' in a way that is equivalent to others' use of the expression 'pragmatic presupposition'.

<sup>7</sup> Prince (1981a) also discusses a third notion of givenness in the sense of 'predictability', which I will not discuss here. I am not sure what role if any this third notion plays in pragmatic theory. Prince has more recently (1992a) proposed a variation on the distinction in (6), namely a contrast between *hearer-old* and *discourse-old*. However, while the latter notion corresponds very roughly to her earlier notion of givenness in the sense of saliency, her discussion in the more recent paper implies that she intends something somewhat broader by *Discourse-old* than what she intends by saliency. She defines the former notion in terms of whether something is in the discourse model constructed up to that point, while she defines the latter as in (6b). She states that salient entities are *Discourse-old*, but by stating this and by employing the two different terms, she implicates that she does not intend the two to be identical thus implicating that there might be instances of *Discourse-old* entities that are not salient. In terms of the discussion below, I assume that such entities would be semi-deactivated entities.

(6) (a) Givenness in the sense of *shared knowledge*

Givenness<sub>k</sub>: The speaker assumes that the hearer 'knows', assumes, or can infer a particular thing (but is not necessarily thinking about it). (Prince, 1981a: 230)

(b) Givenness in the sense of *saliency*

Givenness<sub>s</sub>: The speaker assumes that the hearer has or could appropriately have some particular thing / entity / ... in his/her **CONSCIOUSNESS** at the time of hearing the utterance. (Prince, 1981a: 228)

The first of these two notions of givenness apparently corresponds to the notion of pragmatic presupposition.<sup>8</sup> This is the notion of givenness that is assumed, for example, by Clark and Haviland (1977).<sup>9</sup>

### 3. Activation

Prince's second notion of givenness in the sense of what she calls *saliency* is the notion of givenness associated with the work of Chafe (1974, 1976, 1994). This notion of givenness relates crucially to the assumption that of the various things in one's mind or memory, a small number are activated in the sense that they are 'lit up', in the individual's attention, in their consciousness, or what they are thinking about at a given point in time, while most of the things in one's mind or memory are nonactivated, not being attended to, not in one's consciousness, and not being thought about at that point in time. While the psychological literature suggests that some of these different notions I have appealed to in characterizing the distinction between activated and nonactivated may ultimately need to be distinguished (cf. Posner and Petersen, 1990), I will assume that they provide an adequate first approximation for characterizing the notion of activation in an intuitive way, and certainly enough to distinguish this notion or set of related notions from the notion of pragmatic presupposition or givenness in the sense of *shared knowledge*. Activated entities may also be considered to be entities in short-term memory or working memory, while nonactivated entities are only in long-term memory. The activation status of

<sup>8</sup> Taken literally, pragmatic presuppositions are necessarily propositions, though Prince's notion of givenness in the sense of shared knowledge extends to other types of entities, such as the interpretations of noun phrases. Various people have extended the notion of presupposition to noun phrases (or their interpretations) in the sense that the proposition expressing the existence of the referent of the noun phrase is presupposed.

<sup>9</sup> One of the sources of terminological confusion in the literature on this topic is exactly what the terms used are intended to be predicated of. In the case of a noun phrase being given, for example, this might mean the noun phrase itself, it might mean the referent (if any) in the real world, it might mean an element in a semantic or logical representation, or it might mean some cognitive entity, some 'node' in our mental representation that corresponds to the entity, or one of a number of other possibilities. While to some extent, these differences don't matter, some confusions have arisen precisely due to confusion over them. In so far as the issue is important, I intend the term to be predicated of some sort of cognitive entity, though I suspect most if not all of the claims of this paper go through under alternative assumptions.

entities changes rapidly through time, and activated entities often become deactivated within a short period of time. One's beliefs, in contrast, do not change in the same way and generally remain constant over long periods of time. The role of activation is reflected linguistically in the use of third person pronouns in contrast to noun phrases headed by nouns (cf. Givón, 1983; 1992; Ariel, 1988, 1990; Gundel et al., 1993: 278). While noun phrases headed by nouns sometimes correspond to activated entities, noun phrases containing third person pronouns almost always correspond to activated entities.

While it is sometimes convenient for expository purposes to discuss the contrast of activated versus nonactivated entities as if there were a discrete binary distinction, there are at least three ways in which such a picture is ultimately misleading (cf. also Sgall et al., 1986: 55-63, 262-265; Hajičová and Vrbová, 1982; Ariel, 1990; Chafe, 1987, 1994: 72-74). First, mention of an entity normally causes it to become or to remain activated in the mind of the hearer, while nonmention of something that has been activated normally causes it to gradually *decay* in activation. The observation that third person pronouns become increasingly difficult to use the farther back it is to the previous reference reflects, I assume, the fact that pronouns are used for activated entities. Nevertheless, the process of deactivation appears to be a gradual one, so that we can say that certain entities that have been mentioned (or thought of) relatively recently may be less activated than other entities but still more activated than entities that have not been mentioned or thought of for a long time. While I assume that degree of activation is essentially a continuum, it is useful to have a label for intermediate entities of this sort, which I will call *semi-deactivated entities*.

There is a second type of intermediate case that is different from that of semi-deactivated. Namely, the activation of one entity may cause entities which are related to the first entity by inference or other types of association to be highly accessible to activation in the sense that they may be just below the threshold of activation, and thus not activated, but still quite distinct from entities which are fully nonactivated (cf. Sgall et al., 1986: 263-264). In (7), for example, the cognitive entity corresponding to the noun phrase *his wife* is likely to be more accessible to activation for the hearer at the point when the noun phrase is encountered than other nonactivated entities, partly because of the preceding text and partly because it is what Prince (1981a) calls a *containing inferable* in which the anchor is itself already highly activated.

(7) John came into the room with a woman we had never met. We wondered where *his wife* was.

Again, accessibility is presumably a continuous notion, but it is convenient to label such intermediate cases as *accessible*.<sup>10</sup> Semi-deactivated entities are thus ones that

<sup>10</sup> Chafe (1987) makes distinctions that are similar to those made here, recognizing a three-way distinction between active concepts (corresponding to my activated), semi-active concepts (corresponding to my semi-deactivated and accessible) and inactive concepts (corresponding to my nonactivated). In his earlier work, Chafe claimed that activation is a binary choice, or at least that speaker's models of

were previously fully activated but that have faded in activation, while accessible entities are ones which need not have been previously activated but which differ from fully nonactivated entities due to their association with activated entities.

A third way in which a simple binary contrast of activated versus nonactivated is misleading is that, even among entities that are fully activated, some may be particularly activated in the sense that they are the *focus of attention* (cf. Gundel et al., 1993: 279; Linde, 1979: 345). Somebody observing a duel between two individuals may tend to focus their visual attention on one of the two participants (cf. Tomlin, 1995) and I assume that we can describe such a situation by saying that that individual is more highly activated than the other, even though both are activated. There is considerable discussion in both the psychological literature (cf. Greene et al., 1992, and references cited therein) and the artificial intelligence literature (e.g. Hirst, 1981; Sidner, 1982) of principles determining the interpretation of pronouns across sentence boundaries. I assume that one of the variables here is that of the level of activation, even among activated entities. The notion of focus stack in the work of Sidner represents one attempt to model degrees of activation. We can thus divide the continuum of activation into at least four levels, as in (8) (though to what extent these four levels have any significance beyond being arbitrary divisions is not clear).

(8) focus of attention > activated but not focus of attention

$$\left. \begin{array}{l} > \left\{ \begin{array}{l} \text{recently activated but now semi-deactivated} \\ \text{accessible to activation} \end{array} \right\} > \text{nonactivated} \end{array} \right\}$$

It is worth emphasizing that activation is essentially a status of cognitive entities and relates to language only in so far as parts of linguistic utterances or parts of the meaning of utterances correspond to cognitive entities which may or may not be activated. Their relevance to linguistics lies in the fact that certain linguistic choices (like pronoun vs. noun, or active vs. passive, or position of focal accent) may be systematically related to if not determined by, the activation status of cognitive entities. Furthermore, in some cases, it may be the activation status of entities in the mind of the speaker that is relevant, while in other cases it may be the speaker's assumptions about the activation status of corresponding cognitive entities in the mind of the hearer that is relevant. The former notion (or one similar to it) is claimed by Tomlin (1995) to be relevant to the choice of active versus passive in English. The latter notion is apparently the relevant notion for choice of pronoun versus nonpronoun.

hearsers treat it as a binary choice (e.g. Chafe, 1974: 119-120). Lambrecht (1994) distinguishes three types of cases intermediate between activated and nonactivated: *textually accessible* (corresponding to my semi-deactivated), *inferentially accessible* (corresponding to my notion of accessible), and *situationally accessible* (which I would treat as a special case of accessible). Lambrecht claims that the distinction between activated participants (or active on his and Chafe's terminology) and accessible participants (which for him includes semi-deactivated) corresponds to Prince's (1981a) notion of *evoked*. However, his category of *accessible participants* appears to include not only Prince's evoked ones but also her inferable ones.

It is important to bear in mind, however, that cognitive entities will vary in their activation status quite independently of linguistic behaviour. The activation status of entities in the mind of a person sitting alone daydreaming or watching an event not involving language (like a sports event) will vary in ways that are presumably no different from the way activation status varies in the minds of people producing or comprehending language.<sup>11</sup>

#### 4. Activated propositions

Much of the literature on givenness in the sense of activation (e.g. Ariel, 1988, 1990; Chafe, 1976, 1994; Prince, 1981a; Sgall et al., 1986; Tomlin, 1995) discusses the activation status of cognitive entities corresponding to noun phrases, rather than the activation status of propositions (though cf. Prince, 1981b, 1985, 1986; Ward, 1988: 42). But propositions in the mind of the speaker may be activated or nonactivated as well, and we can distinguish beliefs of an individual that are activated at a given point in time from beliefs that are nonactivated. The proposition that Helsinki is the capital of Finland is a proposition that I assume many readers of this paper believe, but I also assume that that proposition was not activated prior to my mentioning it here, though it has become activated as a result of my mentioning it. The fact that I can refer to that proposition by a pronoun 'it' both in the preceding sentence and in the latter part of this sentence, reflects, I assume, the fact that I can justifiably assume that it continues to be activated in the minds of readers.

It is important to stress that the set of activated propositions is not simply a subset of the set of beliefs, but that the dimensions of activation and belief are completely orthogonal to each other. While I illustrated, in the preceding paragraph, the possibility of beliefs being either activated or nonactivated, an analogous contrast holds for propositions that are not believed. The proposition that the world is flat is a proposition that I assume most if not all readers of this paper do not believe, but it is a proposition that existed as a nonactivated proposition in the minds of readers before reading this sentence because, I assume, most if not all readers have the belief that there at least once were people who believed it. And again, though this proposition was nonactivated before I mentioned it, it is now activated in readers' minds. As such, it is an example of a proposition that is activated in readers' minds but not believed, and hence illustrates the fact that the set of activated propositions is not a subset of the set of beliefs.

<sup>11</sup> Reinhart (1981: 57) argues against the relevance of activation status or attention to focus (and topic) by arguing that claims have been made associating attention both with topic (nonfocus) and with focus. However, the claims she cites associate topic with what is the center of the speaker's attention but focus with what the speaker intends the hearer's attention to be directed towards. Whatever the merits of these proposals, these are quite distinct notions, especially if the topic is associated, not only with what is the focus of the speaker's attention, but also with what the speaker assumes the hearer's attention to be already directed towards.



It is useful to introduce a third parameter, distinct from belief and activation, that of whether a proposition is *represented* in one's mind or not. Quite independent of whether a proposition is believed or not, we can distinguish three types of propositions: those which are not represented in one's mind, those which are represented in one's mind but not activated, and those which are both represented and activated. It should be clear that one cannot have a proposition activated in one's mind unless it is also represented there, so it is the case that the set of activated propositions is a subset of the set of represented propositions.

The distinction between propositions that are believed and those that are simply mentally represented is one that is recognized in some of the artificial intelligence literature (e.g. Shapiro, 1993: 228), but widely overlooked in the linguistics literature. It is frequently unclear, when people refer to *knowledge* or *shared knowledge*, whether they intend to include all mentally represented propositions or only those that are believed. In fact, although I will assume in this paper that Prince (1981a) intends her first sense of givenness, that of shared knowledge, to be shared belief (or what I am calling pragmatic presupposition), some of her work suggests that she may actually intend the broader notion of shared mental representation. But much of her work can be interpreted either way. One reason for interpreting her in the narrower sense is that she associates this type of givenness with the notion assumed by Clark and Haviland (1977), who clearly intend it in the sense of shared belief, rather than shared mental representation. I will return to this issue in my discussion of Prince's work in section 8.3. A similar issue arises in interpreting Lambrecht (1994), as I will discuss in section 8.5.

It might seem at first that a proposition must be represented in one's mind to be believed. But we need to distinguish those beliefs which are explicitly represented from those beliefs which are simply inferrable from other beliefs. Although I do not want to pretend that this distinction is a simple one, it seems likely that the proposition that Helsinki is the capital of Finland is a belief that is explicitly represented (at least for people who know it), while the proposition that there are over one hundred people in Finland over the age of fifty is something that I assume most if not all readers of this paper believe though not a belief that was explicitly represented in readers' minds before I mentioned it in this sentence. Rather, people have some set of explicitly represented beliefs and rules of inference that allow them to quickly derive this proposition. But prior to deriving an explicit representation of the proposition, such propositions are still instances of beliefs. Beliefs of this sort (referred to by some as *tacit beliefs*) and various philosophical issues associated with them have been widely discussed in the philosophical literature (e.g. Crimmins, 1992: 58–74; Dennett, 1987: 55–56; Field, 1978: 16–17; Lycan, 1986), as well as in the artificial intelligence literature (e.g. Shapiro, 1990: 142, 148).

A final distinction that it is important to bear in mind is that there are two ways in which it can be the case that one does not believe a proposition. One way is to believe that that proposition is false, i.e. to believe the negation of the proposition; the other is not to have a belief with respect to the proposition. Because the expression *does not believe* can be interpreted in either of these two senses and is usually taken to mean *believes is not the case*, we can distinguish them in terms of a contrast

between *X believes that not p* and *X doesn't have a belief with respect to p*, and the expression *X doesn't have a belief that p* can be used as a cover term to describe situations where one or the other of these two situations obtains. For example, when one asks a question like *Did John see Mary?*, we can say that the speaker does not normally have a belief with respect to the proposition that John saw Mary. Simply saying in such a situation that the speaker doesn't believe that John saw Mary is a confusing locution since that normally implicates that the speaker believes that John did not see Mary.

While it is the case that someone asking a question like *Did John see Mary?* will normally not have a belief with respect to the proposition that John saw Mary, this proposition must be activated in their mind; otherwise they would not ask the question. In addition, asking the question activates the proposition in the mind of the hearer (unless it was already activated), and the various possible responses of the hearer, such as *Yes*, *No*, *I don't know*, or *Probably*, will depend on what belief relation holds for the hearer, such as believing the proposition is true, believing the proposition is false, and not having a belief with respect to the proposition. Table 1 summarizes the various possibilities I have discussed here.

Table 1  
Taxonomy of cognitive status of propositions, with some characteristics

|                            | Not represented           | Represented but nonactivated               | Represented and activated          |
|----------------------------|---------------------------|--------------------------------------------|------------------------------------|
| Believed                   | inferrable beliefs        | typical beliefs                            | activated beliefs                  |
| Believed false             | inferrably believed false | negation of it represented as belief       | activated but believed to be false |
| Not believed true or false | 'most propositions'       | various propositions one has beliefs about | propositions simply activated      |

### 5. Nonfocus and activated propositions

Much of the literature on focus uses question–answer pairs to illustrate the notion of focus. This is natural, since the notion of focus is most clear in answers to questions, since the focus corresponds to the real answer to the question. In (9B), for example, the focus *MARY* is what provides the real answer to the question, the rest of B's response completing the sentence with words that repeat part of the question and whose interpretation corresponds to something that is pragmatically presupposed.<sup>12</sup>

<sup>12</sup> In fact, (9B) is not the most natural way to answer the question, the most natural way being simply *Mary*. But (9B) is *otherwise* a felicitous answer. Some of my examples will be more spelled out than is perhaps natural, but this is only to make clear what is the nonfocus, since it is the nonfocus that is often left out by ellipsis.

- (9) A: Who saw John?  
B: MARY saw John.

Now it is apparently true that in (9B) it is presupposed that someone saw John, and that this proposition corresponds to the nonfocus *saw John*. But it is not clear that this presupposition is due to the focus-nonfocus structure in (9B) rather than the fact that this sentence is the answer to the wh-question in (9A). A widely held view (e.g. Mittwoch, 1979: 402; Erteschik-Shir, 1986: 120) is that wh-questions themselves involve a presupposition that something exists that will satisfy the question.<sup>13</sup> Thus, the wh-question in (9A) pragmatically presupposes that someone saw John; the question in (9A) would normally be inappropriate if A did not believe that someone saw John. If A lacked this belief, it would normally be necessary for A first to ask whether someone saw John. But if the question in (9A) pragmatically presupposes that someone saw John, then that means that that proposition is part of the common ground. Hence unless B chooses to challenge this presupposition, it remains part of the common ground. So while it may be true that (9B) presupposes that someone saw John, in the sense that this is part of the common ground when (9B) is uttered, we can explain this presupposition in terms of the fact that it is the answer to a wh-question, and we do not need to explain it in terms of what is nonfocus in simple focus sentences like (9B).<sup>14</sup> A crucial test case, therefore, is one, like (10), which challenges the presupposition.

<sup>13</sup> There are apparent exceptions, like *Who can get three Ph.D.s in two years?* I assume that this sentence literally presupposes that someone can get three Ph.D.s in two years, but that in normal contexts, the transparency of the fact that this is not part of the common ground would lead the sentence to be taken nonliterally, thus leading to its normal rhetorical effect. It is worth pointing out that the traditional test for presupposition, constancy under negation, fails for the pragmatic presupposition in wh-questions. Thus (i) does not presuppose that someone saw John (though in many contexts it may conversationally implicate such).

(i) Who didn't see John?

But the defining characteristic of pragmatic presupposition is that it be part of the common ground, and constancy under negation does not always successfully test for pragmatic presupposition. Chierchia and McConnell-Ginet (1990: 282-283) observe that constancy under negation would suggest that nonrestrictive relative clauses in English are presupposed, but consideration of the contexts in which they are appropriate shows that they lack the pragmatic properties of presupposition. Green (1989: 85) observes that such clauses are actually asserted.

<sup>14</sup> It should be noted that the view that wh-questions presuppose the existence of something satisfying the question has been questioned by Wilson and Sperber (1979: 313) and Prince (1981b: 263, fn. 10). Wilson and Sperber argue that the appropriateness of examples like that in (10) below is evidence that wh-questions do not presuppose the existence of something satisfying the question. However, the appropriateness of examples like that in (10) does not itself show that the question does not make such a presupposition. For example, (iB) is a perfectly appropriate response to (iA), despite the fact that (iA) presupposes that B has cheated on his wife.

(i) A: Have you stopped cheating on your wife?

B: I never have cheated on my wife.

One can argue that (10) is analogous, with B denying the presupposition in A's question. The fact that exchanges like that in (ii) are pragmatically natural provides evidence that wh-questions *do* presuppose that something exists that satisfies the question.

- (10) A: Who saw John?  
B: NOBODY saw John.

The distribution of focus and nonfocus is the same in (10B) as it is in (9B): *nobody* is focus and *saw John* is nonfocus. But in contrast to (9B), (10B) does *not* presuppose that somebody saw John. In fact it asserts exactly the opposite. Hence (10B) is a case in which the nonfocus is not pragmatically presupposed.<sup>15</sup>

The fact that pragmatic presupposition is not a necessary property of the nonfocus is also brought out by examples like (11).<sup>16</sup>

- (11) A: Who if anyone saw John?  
B: MARY saw John.

Adding expressions like *if anyone* to an interrogative expression cancels the presupposition generally associated with wh-questions. It is clear from the form of the question in (11A) that it is not presupposed in (11B) that John saw someone.

What (9B), (10B), and (11B) have in common is that in all three cases the proposition *someone saw John* is *activated*: in all three cases it has been mentioned in the immediately preceding context and is something that both the speaker and hearer are 'thinking about'. The question in (10A) does pragmatically presuppose that someone saw John. But it also will cause the proposition that someone saw John to become activated in the mind of the hearer, if it is not already activated. The position of focus accent in (10B) is clearly related to the fact that the two other words in the sentence, *saw John*, occur in the question in (10A). But that is because these two words are associated with the proposition that is activated.<sup>17</sup> The answer *nobody* represents

(ii) A: Who did you see?

B: What makes you think I saw someone?

I do admit that there may be other accounts of this phenomenon. For example, one might argue that it is simply that in many contexts, wh-questions conversationally implicate (rather than presuppose) the existence of something satisfying the question. The arguments in this paper do not in fact require that wh-questions presuppose the existence of something satisfying the question. But if there are contexts in which (9) is possible, where it is *not* presupposed that someone saw John, I would maintain that in those contexts (9B) does not presuppose that someone saw John either, in which case the claims of this paper are even more strongly supported.

<sup>15</sup> The significance of examples like (10) to the theory that nonfocus involves pragmatic presupposition is noted by both Jackendoff (1972: 246) and Rochemont (1986: 45), whose approaches I discuss in sections 8.1 and 8.2 below.

<sup>16</sup> I am indebted to Larry Horn for bringing examples like (11) to my attention.

<sup>17</sup> While my discussion in this paper will be phrased in terms of activation of existential propositions like (i), I remain agnostic between this formulation and a number of alternative formulations in terms of things that might be considered to be activated, like open sentences, as in (ii), or a lambda expression, as in (iii), or the concept of seeing John, which might be represented as in (iv).

(i)  $(\exists x)(x \text{ saw John})$

(ii)  $x \text{ saw John.}$

(iii)  $(\lambda v)(x \text{ saw John})$

(iv) that which is shared by all events in which there is an  $x$  such that  $x$  saw John



something that is presumably not activated here.<sup>18</sup> In the case of the (11), unlike that of (9) and (10), not even the question presupposes that someone saw John. But once again, it does activate this proposition.

There are contrasts between cleft sentences and simple focus sentences that show that while the former involve pragmatic presupposition, the latter do not. Compare (10), which involves simple focus, with (12), which involves a cleft.

(12) A: Who saw John?

B: #It was NOBODY that saw John.

As Rochemont (1986: 130) points out, the unacceptability of (12B) can be explained by the fact that the cleft construction presupposes that someone saw John, which contradicts the assertion that nobody saw John. For this reason, (12B) is apparently inappropriate in any context.<sup>19</sup> A cleft example corresponding to (11) is also unacceptable, as illustrated in (13).

(13) A: Who if anyone saw John?

B: #It was MARY that saw John.

The oddity of (13B) arises because the use of the cleft requires that it be presupposed that someone saw John, but it is clear from the question in (13A), that A does not have a belief that someone saw John. The contrast between the unacceptability of these examples and the acceptability of the corresponding examples with simple focus underlines the fact that the nonfocus in sentences with simple focus does not involve pragmatic presupposition.

There are many other kinds of examples that illustrate the possibility of the non-focus corresponding to an activated proposition where pragmatic presupposition is not involved. Consider the example in (14).<sup>20</sup>

The representation in (iii) could be interpreted either in the standard way as a function or as a set (as proposed by Jackendoff, 1972: 246). While (iv) seems clearly distinct from (i) to (iii), it is not clear to me what really distinguishes these others. Many of the claims of this paper that are stated in terms of activation of propositions could probably be formulated in terms of these alternative concepts. It is not clear to me whether there are any substantive issues at stake here.

<sup>18</sup> As discussed below, however, it is not the case that focus always corresponds to causing something to become activated, since there are cases in which the focus corresponds to something already activated.

<sup>19</sup> The sentence (12B) does have a reading which is irrelevant here which is not a cleft but which involves a relative clause modifying the pronoun *nobody*, as in (i).

(i) A: Do you know who it was that said that John was good-looking?

B: Well, it was nobody that saw John.

In (iB), *nobody that saw John* is a constituent, with a status analogous to that in (ii).

(ii) Nobody that saw John would say anything like that.

<sup>20</sup> Gundel (1988: 143, 163) observes that (i) is appropriate as an answer to a question like (ii), and thus lacks the presupposition that she called someone.

(i) JOHN, she called.

(ii) Did she call anyone?

Exactly the same comment could be made about (iii).

(14) A: Did anyone see John?

B: MARY saw John.

Again, although the nonfocus in (14B) is *saw John*, it is clear in the context that (14B) does not involve a pragmatic presupposition that someone saw John, since the question in (14A) implies that A does not have any such belief.<sup>21</sup> Note that the analog of (14), with a cleft sentence as the answer rather than a simple focus sentence, is somewhat odd, as in (15).

(15) A: Did anyone see John?

B: #It was MARY that saw John.

The interchange in (15) is odd because the cleft sentence in (15B) presupposes that someone saw John, but it is clear from the question in (15A) that this is not part of the common ground.

A case similar to (14) is given in (16).

(16) A: Did either Mary or Sally see John?

B: MARY saw John.

Again, A's question does not require that they believe that someone saw John. Another similar case is given in (17).<sup>22</sup>

(17) A: Did Sally see John?

B: No, but MARY saw John. (or No, but MARY did.)

Again, in the context in (17), the proposition that someone saw John is activated but need not be pragmatically presupposed.

The fact that simple focus sentences do not involve pragmatic presupposition, but rather activation, is also illustrated by negative sentences, questions, and conditionals, which, as Chierchia and McConnell-Ginet (1990: 24, 281) note, usually serve as diagnostics for presupposition in that the 'implication' of the presupposition remains

(iii) She called JOHN.

Elsewhere in her book, Gundel seems to assume that simple focus is associated with presupposition (cf. pp. 41, 112).

<sup>21</sup> A response consistent with much of the literature is that (14B) involves *accommodation*, that B is speaking as if A shares this belief, assuming that A can recover this from B's response. One way of thinking of it is that (14B) is an abbreviated or elliptical form of (i), where the *Yes* asserts the proposition activated by the question, after which B can pragmatically presuppose that someone saw John.

(i) Yes, MARY saw John.

I address the role of accommodation in section 6 below.

<sup>22</sup> The example in (17B), unlike many of the examples discussed in this paper can involve level final intonation rather than falling final intonation. Whether this provides a reason to exclude this case is not clear. In the absence of a good reason, I will assume that this example is relevant, since the focal accent does fall on *Mary*.

constant in such sentences. Thus the presupposition that someone saw John occurs not only in the positive declarative cleft in (18a) but also in the negative cleft in (18b), the interrogative cleft in (18c), and the cleft embedded in a conditional, as in (18d).

- (18) (a) It was Mary that saw John.  
 (b) It wasn't Mary that saw John.  
 (c) Was it Mary that saw John?  
 (d) If it was Mary that saw John, then I will be angry.

All four of these sentences are appropriate only in contexts in which it is pragmatically presupposed that someone saw John. Consider now the three corresponding sentences with simple focus.

- (19) (a) MARY saw John.  
 (b) MARY didn't see John.  
 (c) Did MARY see John?  
 (d) If MARY saw John, I will be angry.

While there is no doubt that these sentences are appropriate in contexts in which it is pragmatically presupposed that someone saw John, the question is whether they *only* occur in such contexts. I have already argued that positive declarative sentences like (19a) need not occur in such contexts. Let us examine each of the three other sentence types in (19).

Consider first negative focus sentences, as in (20).

- (20) A: Did anyone see John?  
 B: I don't know. I know MARY didn't see him.

As with the positive version of this interchange in (14) above, it is clear that it is not pragmatically presupposed that someone saw John, since A is asking whether this proposition is true. In fact, the negative example in (20) is in some ways a more convincing type of example than the positive example in (14): while the positive example in (14B) does *assert* and thus *entail* the proposition in question, this is not true of the negative example in (20B), since neither A nor B in (20) has a belief as to whether someone saw John. Hence this proposition is clearly not pragmatically presupposed. On the other hand, this proposition is clearly activated in this context. Again, (20B) contrasts in acceptability with a corresponding example with a cleft, given in (21B).

- (21) A: Did anyone see John?  
 B: I don't know. #I know it wasn't MARY that saw him.

The second sentence in the response in (21B) is odd precisely because it presupposes that someone saw John, but it is clear, both from A's question and from the first sen-

tence in B's response, that neither A nor B has a belief as to whether someone saw John. The contrast between (20B) and (21B) can thus be explained if we say that clefts involve pragmatic presupposition while simple focus sentences do not.

Consider the second type of sentence for testing for presupposition, that of questions. The example in (22) illustrates focus within a question.

- (22) A: John thinks that Bill is in the house, but I know that he isn't.  
 B: Is SAM in the house?  
 A: NOBODY is in the house.

Again this interchange is perfectly natural even in contexts in which B has no belief whether somebody is in the house. Compare (22) to (23), which is felicitous, but only in contexts in which B believes that someone is in the house.

- (23) A: John thinks that Bill is in the house, but I know that he isn't.  
 B: Is it SAM that is in the house?  
 A: NOBODY is in the house.

While both (22) and (23) are possible, the difference is most clearly reflected in the nature of A's response to B's question. In (22), A's answer follows B's question naturally, not only answering B's question (by communicating that the answer is *No*), but also providing additional information by asserting a stronger proposition that entails the answer to B's question. But in (23), A's response has a very different pragmatic effect, in that it challenges B's presupposition that someone is in the house. Again, this contrast illustrates that clefts involve presupposition but simple focus sentences do not.

A third diagnostic for presupposition is conditional clauses. The example in (24) illustrates a simple focus clause occurring within an *if*-clause.

- (24) I don't know whether anyone saw John, but if MARY saw him/John, I will be very angry.

Sentence (24) is perfectly acceptable and the first part of the sentence makes it clear that the speaker does not have a belief that someone saw John. The corresponding example in (25), with a cleft, is again somewhat odd.

- (25) ??I don't know whether anyone saw John, but if it was MARY that saw John, I will be very angry.

Sentence (25) involves a pragmatic inconsistency between the first part of the sentence, which asserts that the speaker does not have a belief as to whether someone saw John, and the presupposition in the second part of the sentence that someone saw John. Sentence (25) thus contrasts with the simple focus example in (24), which is perfectly acceptable; if (24) involved the same presupposition as the cleft in (25), then it would be odd for the same reason that (25) is. Once again, however, we can

explain the naturalness of (24) in terms of the fact that the proposition that someone saw John is activated in the context.

The next example I will discuss involves a somewhat different kind of argument. Compare (26) and (27).

(26) A: Is Gore the President and Clinton the Vice-President?

B: No, CLINTON is the President; (Gore is the VICE-PRESIDENT.)

(27) A: Is Gore the President and Clinton the Vice-President?

B: No, Clinton is the PRESIDENT; (GORE is the Vice-President.)

If we ignore the second part of (26B) and (27B) (the clauses referring to Gore), and concentrate on the first part of B's response in each of these examples, we see that the two responses by B differ only in terms of what is the focus and what is the non-focus: in (26B), *Clinton* is focus while *the President* is nonfocus, while in (27B) this is reversed. The possibility of responding to the question with either (26B) or (27B) is intuitively tied to the fact that A asked two (related) questions, and B's response in (26) is directly answering the first question (and answering the second question only by implication), while B's response in (27) is directly answering the second question (and answering the first question only by implication). More specifically, in (26), B is responding to the question *Is Gore the President?* while in (27), B is responding to the question *Is Clinton the Vice-President?*<sup>23</sup> This can be illustrated by contrasting (26) and (27) with interchanges where only one of these two questions was asked. The examples in (28) and (29) illustrate that Clinton, who was not mentioned in the question, must be focus in the response, while the examples in (30) and (31) illustrate that Clinton must be nonfocus, having been mentioned in the question.<sup>24</sup>

(28) A: Is Gore the President?

B: No, CLINTON is the President.

(29) A: Is Gore the President?

B: \*No, Clinton is the PRESIDENT.

<sup>23</sup> My discussion ignores the fact that (26B) and (27B) can also be pronounced with an alternative intonation contour in which a pitch accent falls on the noun phrases that are not capitalized. For example, (27B) has the alternative pronunciation given in (i), using the capitalization notation.

(i) CLINTON is the PRESIDENT.

However, this representation fails to capture the fact that when (27B) is pronounced this way, the pitch accents corresponding to the two noun phrases are in fact different. In the terminology of Bolinger (1958), *Clinton* in (i) has a B pitch accent while *President* has an A pitch accent. Steedman (1991) identifies the former with L+H\* in the notation of Pierrehumbert (1980) and the latter with H\*, and argues that the former is associated, on his terminology, with themes, the latter with rhemes. For present purposes, I will assume that it is only the latter type of pitch accent which is relevant to focus in the sense of this paper, and thus that the absence of capitalization in examples may in some cases correspond to B ('thematic') pitch accents.

<sup>24</sup> The term *topic* would be used by many in discussing examples like those in (28) to (31): I prefer the more neutral term *nonfocus* since the term *topic* is used in a wide variety of ways (cf. Schlobinski and Schutze-Coburn, 1992) and on many uses of the term, it is distinct from the nonfocus.

(30) A: Is Clinton the Vice-President?

B: No, Clinton is the PRESIDENT.

(31) A: Is Clinton the Vice-President?

B: \*No, CLINTON is the President.

What is important to note about (26) and (27) is that (again restricting attention to the first part of B's response), the presuppositions and assertions are *exactly the same* in B's response in the two examples, while the focus is different. In both cases, B's response presupposes that there is an X such that X=Clinton and that there is a Y such that Y=the President, and asserts that X=Y. Hence any attempt to define or characterize focus in terms of presupposition and assertion will not work.<sup>25</sup>

One might object that the examples in (26) and (27) also provide a problem for a theory of focus tied to activation, since the cognitive entities corresponding to both Clinton and the President are activated, as are the propositions that Clinton is something and that someone is the president. In other words, if everything in (26) and (27) is activated, does that not imply that it should be impossible to characterize the difference in focus in terms of activation? The answer is that, as discussed in section 3 above, things that are activated may differ in degree of activation in that some things may be more highly activated in the sense that the individual's attention is focused on them. As noted above, the difference between (26) and (27) seems to be linked to the fact that in (26), B's response is to A's first question, while in (27), B's response is to A's second question. But this contrast means that in (26), the speaker is attending primarily to the question whether Gore is the President, implying that the proposition that there is an x such that x is the President (as well as the intensional entity corresponding to *the President*) is more highly activated, while Clinton, though activated in the context, is not the primary focus of the B's attention and is thus less activated. Conversely, in (27), B's attention is focused on the proposition activated by A's *second* question, the proposition that Clinton is the Vice-President, thus suggesting that Clinton and the proposition that there is an x such that Clinton is x are both more highly activated than either the proposition that someone is the President or the intensional entity corresponding to *the President*.<sup>26</sup> It is possible,

<sup>25</sup> The expression *the asserted part* of a sentence has sometimes been used to refer to the focus (e.g. Van Valin, 1993: 23). But on a strict definition of assertion, it is only *propositions* that can be asserted, and thus the notion of the asserted part of a sentence makes sense, strictly speaking, only if the part of the sentence that is said to be asserted is one that is itself a proposition, as with the main clause in (i) (i) Because it's getting late, I'm going to go home now.

But the expression does not make sense literally when applied to examples like (26) and (27). Since what is asserted in both (26B) and in (27B) is the proposition X=Y where X=Clinton and Y=the President, there is no sense in which either the *Clinton* or the *President* is the 'asserted part' of the sentence. I assume that the use of the expression *asserted part of a sentence* to refer to the focus is simply a byproduct of confusing the focus : nonfocus distinction with the asserted : presupposed distinction.

<sup>26</sup> It is worth being clear that the activation status of discourse referents plays a role in two very different dimensions in pragmatic theory. The first of these dimensions is what Prince (1992b: 399) refers to as "the informational status of discourse entities" in the mind of the hearer. Here, activated discourse referents contrast with a variety of nonactivated discourse referents (such as familiar versus novel) in determining the *form* of noun phrases (e.g. pronoun vs. noun). My discussion in this section addresses

therefore, to offer an account for the difference between (26) and (27) in terms of what is most highly activated, despite the fact that the pragmatic presuppositions and assertions of B's reply in these two examples are the same.<sup>27</sup> The contrast between (26) and (27) involves a minimal contrast that provides the strongest argument against the idea that nonfocus involves pragmatic presupposition.<sup>28</sup>

A final class of problems for the thesis that nonfocus corresponds to presupposition is presented by examples in which the focus clearly falls within a part of an utterance that corresponds to something that is presupposed. For example, Halliday

the activation status of discourse referents in a second dimension, that of focus versus nonfocus, where what is relevant is the activation status of the intensions of various parts of sentences, sometimes discourse referents, but also propositions (both open and closed). Here, what is relevant is the activation of discourse referents *relative* to the activation of the intensions of various other parts of sentences.

<sup>27</sup> Myhill (1992: 24) makes a claim similar to this: "Focused constituents are not necessarily unactivated or low in activation; the only requirement is that they be *lower* in activation than the rest of the clause". He does not, however, discuss examples of the sort discussed here.

<sup>28</sup> Halliday (1967: 223-231) discusses examples analogous to (26) and (27):

- (i) John's the LEADER.
- (ii) JOHN's the leader.

He discusses this contrast in terms of what is the *identifier* and what is the *identified*, saying that (i) 'presupposes' the question *Which is John?* while (ii) 'presupposes' the question *Which is the leader?* Two comments need to be made in this connection. First, Halliday is clearly using the term *presuppose* in a sense distinct from that of pragmatic presupposition as assumed in this paper, since it is propositions which are pragmatically presupposed, not questions. His use of the term is consistent with some notion of activated or focus of attention, in which case his claim is consistent with mine. Second, while his claims are consistent with the facts and in some sense intuitively correct, they shed little light on the question of why both (26) and (27) are possible, unless we know further what determines what is identifier and what is identified.

Halliday does make a further insightful observation that is relevant here. Namely, it is possible (though perhaps somewhat unusual) for the focal accent to fall on what he calls the identified, rather than the identifier, as in (iii).

- (iii) A: Which is the leader?

B: John is the LEADER, but BILL's the one who does the work.

Halliday (p. 226) describes this example as one where contrastiveness overrides the unmarked association of 'new' with 'identifier'. While the role of contrast needs more examination than I have given it in this paper, two further observations can be made. First, note that (iii) is possible only if John is activated in the previous context, as the use of *which* implies, so both the focus and the nonfocus in (iiiB) are activated. Second, an alternative to (iii) is (iv), where focal accent does fall on the 'identifier':

- (iv) A: Which is the leader?

B: JOHN is the leader, but BILL's the one who does the work.

I find (iv) somewhat more natural than (iii) in the sense that (iii) requires a more specific kind of context to be appropriate. For example, (iii) seems natural to me in a context in which A is puzzled because they had thought that John was the leader but observe behaviour that suggests that Bill may actually be the leader. Contrast, for example, (v) and (vi).

- (v) A: I thought that JOHN was the leader. Which of them IS the leader?

B: You're right that John is the LEADER, but BILL's the one who does the work.

- (vi) A: I thought that JOHN was the leader. Which of them IS the leader?

B: "You're right that JOHN is the leader, but BILL's the one who does the work."

This suggests that the assignment of focal accent in (iiiB) is determined, not by the question in (iiiA), but by what proposition B assumes is activated in A's mind (such as *John is eating something*), or by B's assumption that A is focusing their attention on John.

(1967: 237) cites the example in (32), illustrating the focus falling within the presupposed part of a cleft sentence.

- (32) A: Have you told John that the window got broken?

B: It was John who BROKE it.

The presupposition in (32) is that someone (or something) broke the window, yet the focal accent falls within the part of the sentence corresponding to this presupposition. This example can be explained in terms of activation in a way that is perhaps clearer in the example in (33).

- (33) A: Have you told John that the window got broken?

B: John was the one who BROKE it.

The question in (33A) (and (32A)) causes John to be more activated than the individual who broke the window, and hence the focal accent in (33) falls on the noun phrase corresponding to the less activated entity. If we construe that *wh*-clause in (32B) as also referring to the individual who broke the window, then this explanation carries over to (32) as well.

A second example showing the focus falling within a presupposed part of a sentence is illustrated by the possibility of the focus falling on different parts of a *wh*-question, all of which are involved in a presupposition. Compare (34) with (35).

- (34) What did JOHN give to Mary?

(35) What did John give to MARY?

Both (34) and (35) presuppose that John gave something to Mary. But the form in (34) is appropriate in contexts where the proposition that someone gave something to Mary is more highly activated, while that in (35) is more appropriate in contexts in which the proposition that John gave something to someone is more highly activated. Again, we can account for the contrast in terms of activation but not in terms of pragmatic presupposition.

A similar argument can be given based on *wh*-questions formed on cleft sentences. Compare (36) to (37).

- (36) What was it that JOHN gave to Mary?

(37) What was it that John gave to MARY?

Because of the use of the cleft construction in these sentences, it is particularly clear that both pragmatically presuppose that John gave something to Mary. But again, there is a difference in focus. The difference between (36) and (37) is similar to the difference between (34) and (35): (36) is more appropriate in contexts in which the proposition that someone gave something to Mary is more highly activated, while (37) is more appropriate in which the proposition that John gave something to someone is more highly activated.

I have argued in this section that there are many examples of nonfocus that involve activation but not pragmatic presupposition, and that classic examples given to illustrate nonfocus being pragmatically presupposed in straightforward answers to wh-questions (A: Who saw John? B: MARY saw John) involve pragmatic presupposition, not because of the nature of the response, but because the *question* involves pragmatic presupposition and unless the individual answering the question wants to deny this presupposition, the answer to the question will share the same pragmatic presupposition. But even if we want to say that the nonfocus corresponds to an activated proposition, do we want to say that any part of a sentence corresponding to an activated proposition will be nonfocus? Many of examples discussed above, such as (26) and (27), show that we cannot say this, as does the example in (38).<sup>29</sup>

- (38) A: Did MARY kiss John or did SALLY kiss him?  
B: MARY kissed John.

While the nonfocus in (38B) *kissed John* corresponds to the activated proposition that someone kissed John, the entire proposition that Mary kissed John is also activated by A's question. So the entire sentence in (38B) corresponds to an activated proposition, while not all of (38B) is nonfocus.<sup>30</sup> What this shows is that even if the nonfocus must be activated, it is possible for the focus to be activated as well.

Examples like (38B) show that focus does not always involve activation of a previously nonactivated entity. But the fact that the focus may be something that is already activated is consistent with the claim that the *nonfocus* must still correspond to something that is activated.<sup>31</sup> But if that is the case, what role does activation play in predicting the distribution of focus and nonfocus? The crucial observation is that even among a number of things that are activated, some may be *more* activated than others, being more the focus of attention. The assumption that certain propositions may be more highly activated than others can account for examples like (38B). Namely, while the propositions that someone kissed John, that Mary kissed John, and that Mary kissed someone are all activated by the question in (38A), the first of

<sup>29</sup> Since the question in (38A) (at least if pronounced with falling intonation, as an alternative question) pragmatically presupposes that either Mary or Sally kissed John, it pragmatically presupposes that someone kissed John. Hence (38B) pragmatically presupposes it as well, since it is part of the common ground. I assume at this point, however, that I have successfully argued that pragmatic presupposition is irrelevant to the distribution of focus and nonfocus, and that in cases like (38B), the pragmatic presupposition arises from the question, not from the answer.

<sup>30</sup> One might try to argue that what is relevant to the determination of focus is existential propositions, and that since only the proposition that someone kissed John and not the proposition that Mary kissed John is an existential proposition, only the former is relevant. Or, in terms of the approach represented by Prince (1981b, 1985, 1986), only the latter involves an *open sentence*, namely *X saw John*. However, the proposition that Mary kissed someone is also activated by (38A), and this is an existential proposition (and it involves the open sentence *Mary kissed X*), but the part of the sentence corresponding to this existential proposition (or open sentence), *Mary kissed*, is not nonfocus.

<sup>31</sup> Whether it is possible for the nonfocus to be something that is nonactivated is something I will not discuss here. There may be cases in which the proposition corresponding to the nonfocus does not literally have to be activated, but need only be *accessible* in the sense discussed in section 3 above.

these three propositions is more highly activated by the fact that it alone of these three propositions is also relevant to the second part of (38A). Since the primary purpose of A's question in (38A) is to ask who kissed John, and since only the proposition that someone kissed John is activated by this question (at least of the three propositions in question), this proposition is plausibly the most highly activated of the three.

## 6. Accommodation

A possible response to a number of the arguments in the preceding section against the role of pragmatic presupposition in accounting for nonfocus is that these examples involve what Lewis (1979; 1991: 417) calls *accommodation*. Lewis posits the following rule of accommodation:

If at time *t* something is said that requires presupposition *P* to be acceptable, and if *P* is not presupposed just before *t*, then – *ceteris paribus* and within certain limits – presupposition *P* comes into existence.

Similarly, Stalnaker (1974: 202) notes that there are cases in which “a speaker tells his auditor something in part by pretending that his auditor already knows it. ... In some cases, it would be indiscreet, ... or tedious, ... to openly assert a proposition that one wants to communicate”. Instances in which the notion of accommodation seems particularly convincing include cases of definite NPs being used in contexts where the speaker does not really assume that the hearer believes the propositions presupposed by the definite NP. For example, Heim (1988: 371) observes that it is natural for a speaker to utter (39) to someone walking up a driveway, even if the hearer has no belief that there is any dog in the vicinity.

- (39) Watch out, the dog will bite you.

It would, of course, be possible to express the same meaning by asserting the proposition in question, as in (40).

- (40) Watch out, there's a dog here and it will bite you.

But there may be good pragmatic reasons to utter (39), in order to communicate the message as quickly as possible. Similarly, consider examples with inferrable or bridging discourse reference, like (41a). It is more natural to say (41a) rather than (41b), even though not all restaurants have waiters.

- (41) (a) We went to a restaurant but it took over half an hour before the waiter came to take our order.  
(b) We went to a restaurant and there was a waiter but it took over half an hour before he came to take our order.

Here it is sufficiently natural for restaurants to have waiters, so the waiter is sufficiently accessible that one can refer to him without first asserting his existence.

In these cases, a proposition that we wish to call a presupposition is not literally presupposed in the sense that the speaker assumes it to be part of the common ground, but is only added to the common ground by the utterance in question, much like assertions. The pragmatic mechanism by which this happens also seems clear: the speaker assumes that the hearer will recognize that the speaker is treating the proposition as if it were part of the common ground, and since the hearer has no reason to reject the proposition, will add it to the common ground. The speaker is *pretending* to presuppose something while actually doing something more like asserting it, just as indirect speech acts involve the pretense that one speech act is being performed while another is really being performed.

For at least some of the examples discussed in the preceding section, one could plausibly argue that although the speaker does not literally believe that the hearer believes the proposition in question, the speaker is *pretending* that the hearer does and the principle of accommodation will thus account for these examples. Consider again the example in (42) (originally given in (14)).

(42) A: Did anyone see John?

B: MARY saw John.

Since (42A) is a yes-no question, a literally felicitous answer ought to be either *yes* or *no*. But (42B) does answer the question indirectly, since it entails that someone did see John. In other words, (42B) might be considered an abbreviated form of (43), with the literal answer suppressed on the assumption that the hearer can make the necessary inference.

(43) Yes. MARY saw John.

But in the second part of (43), following the *yes*, it is pragmatically presupposed that someone saw John, since the *yes* adds that proposition to the common ground. Hence one might argue that (42B) involves accommodation and thus does not provide an argument against the claim that nonfocus involves pragmatic presupposition.

The first point to make in response to this argument is to observe that, even if accommodation is a real phenomenon and something that we need to assume as part of pragmatic theory, there is a methodological danger in such notions that should make us wary of accepting accounts in terms of it too readily. An important part of Lewis' (1979) characterization of accommodation that should not be ignored is his proviso that accommodation occurs *within certain limits*. Without any constraints on when accommodation is possible, theories that appeal to accommodation may become unfalsifiable. If one could always argue that any apparent counterexample to a claim of pragmatic presupposition simply involves accommodation, the theory would be uninteresting.

But it is clear that there *are* constraints on accommodation. For otherwise, we would be unable to account for the infelicity of various exchanges. Consider the example in (44).

(44) A: What happened next?

B: "It was Mary that kissed John.

Without constraints, a theory of accommodation would suggest that (44) ought to be felicitous. One could argue, given an unconstrained theory, that B's response pragmatically presupposes that someone kissed John, a presupposition that is not actually part of the common ground, but one which A adds to the common ground since it is entailed by (44). But cleft sentences like (44B) do not allow accommodation in the same way that definite noun phrases allow accommodation of the presupposition associated with definiteness (cf. Soames, 1989: 605, for a similar observation). In order to evaluate the hypothesis that (42) simply involves accommodation, we would need a good theory of accommodation, one that predicts exactly where accommodation is possible, and where it is not possible, explaining in particular why it is not possible in (44). In addition, it seems unlikely that a theory of accommodation could account for the various contrasts discussed above between simple focus sentences and clefts: if the simple focus sentences involve presuppositions that are accommodated in the examples discussed, why are the corresponding cleft sentences odd in the same context? If (45B) involves accommodation of a presupposition associated with the nonfocus, why is it that the universal presupposition associated with the cleft in (46B) cannot be accommodated in the same way?

(45) A: Did anyone see John?

B: MARY saw John.

(46) A: Did anyone see John?

B: "It was MARY that saw John.

However, even in the absence of a good theory of accommodation, one can show that while it is at least possible that some of the examples in section 5 might be explained in terms of accommodation, such an approach seems particularly implausible for some of the other examples. One property that seems to be shared by the cases for which an account in terms of accommodation seems plausible is that while the *hearer* may not believe the proposition in question prior to the utterance, it is at least the case that the *speaker* does (or acts as if they do). Thus, while someone can utter *Watch out, the dog will bite you* even if the hearer does not believe that there is a dog in the vicinity, the *speaker* must believe it. Similarly, consider the case of (47), from the schedule for a conference, which Horn (1986: 185) argues involves accommodation in that the presupposed clause is not really one that the organizers of the conference assume readers will share belief in.

(47) We regret that H.P. Grice is ill and will be unable to attend the conference.

But although participants at the conference may have lacked a belief in the proposition expressed by the complement clause in (47) prior to reading it, the people who wrote it certainly had to believe it.



This property, that the speaker must believe the proposition in question, but the hearer need not, does obtain in a number of the examples discussed in section 5, such as (42) above, where B can say *MARY saw John* without believing that the hearer believes that someone saw John, though in asserting this sentence, the speaker must believe it. But there are other examples discussed in section 5 which lack this characteristic. One such example is (10), repeated here.

(10) A: Who saw John?

B: NOBODY saw John.

Here, B is denying A's presupposition that someone saw John, so B does not believe this proposition nor does B expect this proposition to be added to the common ground. B is not pretending that A already believes that someone saw John; to the contrary B knows that A believes this proposition and that A in fact assumes it is part of the common ground, and B's intent is to *remove* this proposition from the common ground. Hence it does not seem likely that this example can be explained away in terms of accommodation.

Examples in the kinds of syntactic contexts that are diagnostic of presupposition, such as negated clauses or questions, are also difficult to argue away in terms of accommodation. The example in (20), repeated here, does not pragmatically presuppose that someone saw John, nor does it seem likely that it could be accounted for in terms of accommodation, since B neither believes this proposition nor expects it to be added to the common ground.<sup>32</sup>

(20) A: Did anyone see John?

B: (I don't know.) MARY didn't see John/him.

The example with a question in (22), repeated here, illustrates a similar point.

(22) A: John thinks that Bill is in the house, but I know that he isn't.

B: Is SAM in the house?

Appeal to accommodation will not account for (22B) since again B does not need to believe that someone is in the house, nor is it B's intention that this be added to the common ground. Finally, accommodation cannot account for the contrast between *CLINTON is the President* and *Clinton is the PRESIDENT* in (26) and (27). These two occur in contexts with exactly the same pragmatic presuppositions and common

<sup>32</sup> One might try to argue here that the nonfocus here includes the negative and that the proposition that someone *didn't* see John is the nonfocus and pragmatically presupposed in the sense that it gets accommodated by getting added to the common ground. While this may be true, it is the positive proposition that is claimed to be pragmatically presupposed and the point of the negation test for presupposition is that the truth of this positive proposition is supposed to remain constant under negation. Thus, even if it is true that the negative proposition is added to the common ground, the claim that *MARY saw John* presupposes that someone saw John predicts that *MARY didn't see John* should share the same presupposition. But this is not presupposed in (20B).

ground, and the only thing that may get added to the common ground by these utterances is the proposition being asserted, that Clinton is the President. They differ neither in what is actually in the common ground before the utterance or in terms of what is in the common ground after the utterance. In short, appeal to accommodation cannot salvage the claim that nonfocus involves pragmatic presupposition.

While the term *accommodation* has always, to my knowledge, been used in the context of pragmatic presuppositions, there is an analogous notion that is applicable in the context of activation. Chafe (1976: 34) discusses an example in which Sherlock Holmes exclaims "The BUTLER did it" to Watson, who is reading a book and whose attention is elsewhere. Chafe notes that "Holmes evidently was treating this knowledge as if ... Watson were thinking of it even though he wasn't", wording reminiscent of that of Stalnaker (1974) in the latter's discussion of accommodation for pragmatic presuppositions, in suggesting that the speaker is pretending in these cases that the situation claimed by the theory is the case even if it isn't. This suggests that there is a notion of activation accommodation as well as a notion of belief accommodation.

## 7. Activation as metapresupposition

Although the discussion of activation in this paper has treated it as a fundamentally different sort of notion from pragmatic presupposition, there is one sense in which activation, in so far as it plays a role in influencing the position of focal accent, does involve a kind of pragmatic presupposition. In so far as the position of focal accent is determined, at least in part, by the activation status of cognitive representations underlying parts of utterances, what appears to be in general crucial is not the activation status in the mind of the speaker, but rather the speaker's representation of the activation status of different things in the mind of the hearer. If a speaker utters *MARY saw John* with focal accent on *MARY*, it is because they assume that the proposition of someone seeing John is more highly activated in the hearer's mind than Mary; the status of Mary in the speaker's mind is irrelevant. In this respect activation is like pragmatic presupposition: in uttering *It was Mary that saw John*, a speaker assumes that the hearer believes that someone saw John but does not have a belief that Mary saw John; clearly, however, under normal circumstances, the speaker must already believe that Mary saw John. In both cases, the form of an utterance is determined by the speaker's beliefs about the cognitive state of the hearer. In this sense, both activation and the type of pragmatic presupposition illustrated by cleft sentences involve a kind of pragmatic presupposition: both involve beliefs by the speaker about the hearer's cognitive state. In the case of activation, we can say that the speaker presupposes that certain things are or are not activated in the mind of the hearer. In the case of the presupposition found in clefts, we can say that the speaker presupposes that certain propositions are believed by the hearer.

I believe that it is useful here to distinguish two kinds of pragmatic presupposition: what I will call *basic* presuppositions, which are relations between utterances

(or speakers of utterances) and propositions related to what the utterance is *about*, versus what I will call *metapresuppositions*, which are relations between utterances (or speakers of utterances) and propositions about the participants in the discourse or about the discourse itself. For example, we can say that an utterance of the sentence in (48a) has as a basic presupposition the proposition expressed by the sentence in (48b).

- (48) (a) It was Mary that saw John.  
(b) Someone saw John.

But we can also say that an utterance of the sentence in (48a) involves the metapresupposition that the hearer believes that someone saw John (as well, perhaps, that the hearer does not have the belief that Mary saw John). In general, we can say that when an utterance pragmatically presupposes (in the basic sense) a proposition *p*, it also metapresupposes the proposition that the hearer believes the proposition *p*.<sup>33</sup>

While I believe that the distinction between basic presuppositions and metapresuppositions is ultimately important (and that a corresponding distinction between basic implicatures and metaprecipatures is even more important), I will restrict discussion here to its implications for the fact, observed above, that activation involves a kind of pragmatic presupposition in that there is a presupposition that something is or is not activated in the mind of the hearer. The important point to observe is that this pragmatic presupposition is a metapresupposition and that there is no basic presupposition involved. Basic presuppositions are only involved when the metapresupposition involves the hearer's *beliefs*, but in the case of activation, the metapresupposition is about what is *activated* in the hearer's mind. What this does point to is that it is potentially misleading to pair pragmatic presupposition off against activation. Rather, the pair of notions that contrast with each other are really those of belief versus activation, and with each of these there exists a different kind of metapresupposition about the hearer's cognitive state. The traditional notion of presupposition, however, is that of basic presupposition, which may correspond to metapresuppositions about the hearer's beliefs, but is traditionally discussed without reference to the hearer, and in arguing that nonfocus involves activation rather than pragmatic presupposition, I use the notion of pragmatic presupposition here in that traditional (basic) sense. Failure to distinguish metapresuppositions about the hearer's beliefs (and the associated basic presuppositions) from metapresuppositions about what is

activated in the hearer's mind is one source of confusion in the literature regarding the distinction between pragmatic presupposition (in the basic sense) and activation.

The propositions that are activated in the mind of the speaker and that the speaker assumes are activated in the mind of the hearer constitute an extended sort of common ground. Activated propositions are not themselves necessarily part of the common ground in the traditional sense, since they may not be believed. Hence one might propose an extended notion of common ground that includes propositions that are only activated and that distinguishes, among the propositions and entities that are part of the common ground in the traditional sense, those that are activated and those that are not. On the other hand, the metapresuppositions regarding the activation status of propositions and entities in the mind of the speaker and hearer *are* part of the common ground in the traditional sense, and hence could be incorporated into the traditional notion of common ground.

Related questions also arise as to the relevance of activation to dynamic semantic theories, like Discourse Representation Theory (Kamp and Reyle, 1993), which include representations that resemble the notion of common ground. Kamp and Reyle (1993: 165) suggest the need to incorporate "a distinction between two categories of discourse referents, those that are 'currently active' from the point of anaphora, and those that are not". But note that in the case of propositions, there is a need to distinguish three types: those that are both activated and believed, those that are believed but not activated, and those that are activated but not believed.

## 8. Reexamining previous literature

In this section I will discuss some previous literature that bears on the issue of whether nonfocus is associated with pragmatic presupposition. Section 8.1 discusses briefly the claims of Chomsky and Jackendoff, illustrating the fact that although they used the term *presupposition* as a label for nonfocus, they did not intend it in the sense of pragmatic presupposition as that term is now generally understood and their claims are in fact quite consistent with the claims of this paper. In the remaining sections I discuss the work of a number of people who have discussed the issue of the pragmatics of nonfocus (or focus), Rochemont (in section 8.2), Prince (in section 8.3), Vallduví (in section 8.4), Lambrecht (in section 8.5), and Dik (in section 8.6).

### 8.1. Chomsky and Jackendoff

Chomsky (1972) uses the term *presupposition* to characterize the proposition associated with the nonfocus in sentences like those in (49).

- (49) (a) MARY saw John.  
(b) Does John write poetry in his STUDY?

For example, according to Chomsky (1972: 90), (49b) has "as focus 'study' (or 'in his study'), and express[es] the presupposition that John writes poetry somewhere".

<sup>33</sup> The characterization of the distinction between basic presupposition and metapresupposition that I have given here is not quite adequate since if the utterance refers to one of the participants, there may be basic presuppositions about the participants in the discourse that I would want to call basic presuppositions, not metapresuppositions. For example I would want to claim that (i) has as a basic presupposition the proposition that someone saw the hearer, since this presupposition arises directly from the semantics of the sentence.

(i) It was John that saw you.

The metapresupposition here would be the proposition that the hearer believes that someone saw them. I leave it unresolved how to refine the definitions of basic presupposition and metapresupposition in such a way that it captures this intuition surrounding this example.

While the positions of Chomsky and Jackendoff are clearly different from the position being argued against in this paper, their use of the term presupposition has apparently been a source of some confusion in the literature, probably one of the reasons why the claim is often made that the nonfocus in simple focus sentences is presupposed in the sense of corresponding to a (basic) pragmatic presupposition.

## 8.2. *Rochement*

Rochement (1986) explicitly argues against the idea that nonfocus involves presupposition, though his claims differ from mine in a number of ways. First, I believe that only one of the three arguments he offers is convincing. Second, the alternative he offers is not that of activation but a novel notion of his own which he calls *c-construal*. And third, Rochement extends his analysis to clefts, while I have claimed that simple focus sentences and cleft sentences differ in that the former involve activation while the latter do involve pragmatic presupposition.

### 8.2.1. *Rochement's arguments that nonfocus does not involve presupposition*

One of the arguments which Rochement gives against the relevance of presupposition to nonfocus is similar to one I have given above, based on examples like (51), where it is not presupposed that someone likes Mary.

(51) NOBODY likes Mary.

claiming that, he confuses basic presuppositions with metapresuppositions about activated propositions: the proposition expressed by 'there exists someone that likes Bill' can be activated without either speaker or hearer believing that it is true. Hence it is possible to formulate a modified version of his definition that would work with existential propositions instead of lambda-expressions. In other words he could just as easily have said that a proposition *p* is a presupposition in a given discourse context if

- (i)  $p$   $\left\{ \begin{array}{l} \text{is well-defined in the present discourse} \\ \text{is amenable to discussion} \\ \text{is under discussion} \end{array} \right.$

The definition in (i) differs from Jackendoff's in doing away with his distinction between the presupposition and the presuppositional set (and using the term 'presupposition', not for a metapresupposition about the discourse, but as a label for activated propositions).

Thus, even if the 'presupposition' *p* is false, as in the case of *p=there exists someone that likes Bill* in the context where *NOBODY likes Bill* is uttered, the propositions in (i) may still be true. The propositions in (i) are about the activation status of *p* and hence metapresuppositions; metapresuppositions about a false proposition can still be true.

Jackendoff also distinguishes the sort of presupposition associated with nonfocus from that involved with factive verbs and with the definite article, characterizing the former as *focal presupposition*, the latter as *inherent presupposition*. But he claims that both involve a common notion "information assumed by the speaker to be shared by the hearer". The problem is that the "information" is "shared" in two completely different senses, one in the sense of activation, the other in the sense of pragmatic presupposition, and using the same term as a cover term for both only obscures the fundamental difference. Furthermore, Jackendoff's discussion obscures the fact that cleft sentences and simple focus sentences do not involve presupposition in the same sense.

Jackendoff's (1972) use of the term *presupposition* is similar, though technically distinct, as discussed below.

Although there is some confusion in the literature subsequent to Chomsky (1972) and Jackendoff (1972) as to what people discussing simple focus sentences mean by presupposition, a careful reading of both Chomsky and Jackendoff makes it clear that their notions of presupposition are not identical to the notion of pragmatic presupposition assumed in this paper. Chomsky (1972: 100) specifically notes that he is "using the term 'presupposition' to cover a number of notions that should be distinguished". He goes on to characterize the presupposition involved in cleft sentences in a way that is consistent with the notion of pragmatic presupposition (except that it is formulated in semantic rather than pragmatic terms), while noting that the notion of presupposition involved in what I am calling simple focus sentences is a different notion. He is thus using the term *presupposition* as a cover term for whatever meanings or functions are ever associated with nonfocus.

Jackendoff's (1972: 246) approach to presupposition is also explicit in denying its equivalence to pragmatic presupposition. He characterizes the presupposition of a sentence as taking "a form roughly expressed in" (50).

$$(50) (\lambda x)(\text{Presupp}_x(x)) \left\{ \begin{array}{l} \text{is a coherent set} \\ \text{is well-defined} \\ \text{is amenable to discussion} \\ \text{is under discussion} \end{array} \right. \text{ in the present discourse}$$

The expression ' $(\lambda x)(\text{Presupp}_x(x))$ ' in (50) denotes what Jackendoff calls the *presuppositional set*, "the set of values which, when substituted for *x* in  $\text{Presupp}_x(x)$ , yield a true proposition". While I am not sure exactly what Jackendoff intended by the first two possibilities in (50), the last possibility ("under discussion") is clearly similar to the notion of activation and the second last one ("is amenable to discussion") is at least similar to the notion of accessibility. His claims are thus consistent with those of this paper. It is worth emphasizing that it is Jackendoff's notion of presuppositional set (rather than presupposition) that corresponds to the nonfocus (and to what is often called the presupposition), and that his notion of presupposition is actually a proposition about the status of the presuppositional set in the discourse context. Jackendoff's notion of presupposition is thus actually a type of pragmatic presupposition, but it is specifically a metapresupposition, in that it is a presupposition about the discourse or what is being or could be discussed in the discourse. It thus differs from the more general notion of pragmatic presupposition which includes basic presuppositions in addition to metapresuppositions.<sup>34</sup>

<sup>34</sup> Jackendoff (1972: 246) notes the significance of examples where *nobody* is focus, as in *NOBODY likes Bill* and claims that it is necessary to handle the presupposition in terms of lambda expressions denoting sets rather than as existential propositions. He notes that such an approach is consistent with examples like *NOBODY likes Bill* since the set  $\lambda x \text{Presupp}_x(x)$  would simply be the empty set in such a case. His argument against defining the presupposition associated with nonfocus in terms of an existential proposition is that the existential proposition is false in cases like *NOBODY likes Bill*. But in

But neither of two other arguments he gives are, I believe, convincing. One of these arguments is based on the fact that the focus can be a clause which is itself presupposed, as in (52).

(52) A: What did John find out?

B: He found out that Mary has left.

But if we break this example down into its presuppositions and assertion, we find that it provides no argument that the nonfocus is not presupposed. (53) lists the presuppositional and asserted status of propositions corresponding to parts of (52B).

(53) Presupposed: Mary has left. (*Let us call this proposition p.*)

There is a proposition *q* such that John found out *q*.

Asserted:  $p=q$

Someone who wanted to maintain the view that the nonfocus is presupposed could still account for (52B), since it involves two presuppositions, the presupposition associated with the factivity of the verb and the presupposition associated with the nonfocus; while the nonfocus does not correspond to the first presupposition in (53), it *does* correspond to the second one.<sup>35</sup>

The fact that the focus is a presupposed clause in examples like (52) thus does not itself provide an argument against the relevance of presupposition to focus. But examples like (52) do provide further evidence in support of the relevance of activation, since activation can better account for the fact that the focus is the proposition that Mary has left. (54) lists the activation status of different propositions corresponding to parts of (52B).

(54) Activated: There is a proposition *q* such that John found out *q*.

Nonactivated: Mary has left.

We can see in (54) that the two propositions that are presupposed by (52B) differ in their activation status, and it is precisely the activated one that is nonfocus and the nonactivated (but presupposed) one that is focus.

Rochement's third argument is based on the example in (55).

(55) A LETTER arrived for you today.

<sup>35</sup> Erteschik-Shir (1986: 120) gives an argument similar to Rochement's argument regarding (52B) in support of her claim that something that is *dominant* can also be presupposed, where her notion of dominant (cf. Erteschik-Shir, 1973; Erteschik-Shir and Lappin, 1983) is close to the standard notion of focus. She in fact uses this as a basis for arguing that her notion of dominance is distinct from focus, on the assumption that what is focus cannot be presupposed. But the claim that the complement of focus is presupposed does not entail that the focus cannot itself be something that involves a distinct presupposition, and hence she fails to show that dominance is distinct from focus and that presupposition is irrelevant to dominance or focus.

He notes that (55) can be used to initiate a discourse, in which nothing is presupposed. Such an example is apparently also problematic for the claim that nonfocus involves activation, since the proposition that something arrived for the hearer that day will most likely be nonactivated at the beginning of a discourse.

But examples like this are problematic only if one assumes that the domain of focus in (55) is the subject noun phrase. It is generally accepted (cf. Chomsky, 1972; Jackendoff, 1972) that the domain of focus interpretation may be any syntactic constituent containing the word on which the focal accent falls. Thus, (56) is a natural answer to any of the questions in (57), and thus is ambiguous as to whether the focus is the object noun phrase, the verb phrase, or the entire sentence.

(56) John ate the SANDWICH.

(57) (a) What did John eat?

(b) What did John do?

(c) What happened?

Since (56) is a natural response to the question in (57c), we can say that the focus in (56) in such a context is the entire sentence rather than just the object noun phrase, in which case there is no nonfocus to be presupposed or activated.<sup>36</sup>

A similar account is available for (55): if we interpret (55) as a sentence which is entirely focus, then there is no nonfocus, and hence it is consistent with the hypothesis that nonfocus involves pragmatic presupposition. Rochement's reason for assuming that the domain of focus in (55) is the subject noun phrase rather than the entire sentence is that the grammatical rules he assumes for assigning focal accent to 'all-focus' sentences assign the focal accent to the verb phrase. However, Lambrecht (1994: 307-322) provides good arguments that sentences like (55) in contexts such as discourse-initial ones are 'all-focus' and that the rules for assigning focal accent to such sentences are more complex than Rochement assumes.

## 8.2.2. C-construal

Rochement's notion of c-construal is worth examining here, since it is one of the more explicit alternatives to presupposition offered in the literature as a basis for nonfocus, and questions naturally arise about its relation to the notion of activation I have discussed in this paper. Rochement (p. 47) defines c-construal as in (58).

(58) (a) A string *P* is *c-construable* in a discourse *d* if *P* has a semantic antecedent in *d*.

(b) A string *P* has a semantic antecedent in a discourse *d*,  $d = \langle f_1, \dots, f_n \rangle$ , if and only if there is a prior and readily available string *P'* in *d*, such that the uttering of *P'* either formally or informally entails the mention of *P*.

<sup>36</sup> I do not intend to imply that questions of the form in (57c) require a response in which the entire answer is focus. Thus (56) might be used as an answer to (57c) in a context in which it is clear that John is the primary object of discussion, in which case the focus might be just *ate the sandwich*. The point, however, is that (56) *can* be an appropriate answer to (57c) in contexts in which John has not been mentioned, and in such contexts, the entire sentence in (56) is focus.

Rochement's notion is certainly similar to activation in some ways. If something has been mentioned very recently in the discourse, it will be c-construable and it will be activated. However, the two notions seem to diverge in a number of other scenarios. First, could something have been mentioned sufficiently far back in a discourse that it is no longer activated in the mind of the hearer, but still be c-construable? Rochement (p. 47) describes two situations in which a string is "prior and readily available in a discourse". The first of them is one which has been "recently uttered in the current and ongoing discourse". This certainly corresponds closely to the notion of activated. Could something have been recently uttered in the current discourse but not be activated? If we interpret the phrase "recently uttered" broadly, then perhaps not. However, there is a vagueness in this phrase that the notion of activation does not suffer from. Namely, while I have to concede that some vagueness surrounds the notion of activation, it is at least a notion that is understood outside the context of language, a notion that is motivated both by evidence from cognitive psychology and by the intuitive folk-theoretic notion of what one is thinking about. C-construability is a nonpsychological notion that, if interpreted generously, seems to correspond roughly to what is psychologically activated. However, it remains vague as to exactly what constitutes a "recent" utterance. The only way we can know if an utterance is recent enough is by testing whether relevant texts sound natural. But since the naturalness in question involves the linguistic phenomena that the notion of c-construability is intended to account for, one runs the risk of circularity. Activation, in contrast, is a notion that can be examined and described independently of language.

Rochement (p. 47) describes a second situation in which a string is "prior and readily available in the discourse", namely if it has been "uttered in a separate discourse event that has taken place in the relatively recent past and is being recalled to the audience's attention by the speaker, who begins the current discourse as a continuation of this prior discourse event." At first sight, this would seem to involve cases where something was not activated, since it is being "recalled" to the hearer's attention. However, the examples of this possibility that Rochement discusses correspond to the cases I have discussed above in terms of activation accommodation. Again, there remains vagueness in Rochement's phrase "relatively recent past". The account in terms of activation requires that the items in question be ones that are sufficiently accessible in the given context to trigger activation in the mind of the speaker. But recency is only one of a number of variables that determine this accessibility. The example of Chafe's, discussed above, involving Sherlock Holmes uttering "The butler did it", occurred after an entire evening. But in the given context, accommodation is possible. In fact, one can imagine scenarios in which two people meeting after many years might have shared an experience that each would know that seeing each other would likely trigger in the mind of the other, and thus where the speaker could assume either that something was already activated in the mind of the hearer or that it would be sufficiently accessible that activation accommodation would be easy. One cannot capture in a definition of the sort that Rochement offers for c-construability the kinds of variables that might make something sufficiently accessible for activation accommodation to be possible.

Finally, Rochement's definition of c-construability cited in (58) above requires previous linguistic discourse. But again one can imagine scenarios in which two people might start an exchange on the basis of some common perceptual experience in which the form of an utterance reflected the speaker's assumption that something was activated in the mind of the hearer. In fact, Rochement himself discusses (p. 62) an example of such, where one person starts a discourse by uttering "I heard it TOO". On the basis of such examples, he suggests that sometimes something can be c-construable on the basis of the physical context rather than the linguistic context. But note that a theory based on activation *predicts* that in such cases the linguistic form will be governed by the same principles as apply with linguistic context. Rochement is forced to fine-tune his notion of c-construability in ways that the notion of activation already predicts. He notes (p. 62) that it is not enough for something to be in the immediate physical environment for it to be c-construable, but that it is necessary for the "attention of the participants" to be "directed towards" it. Not only is this again predicted by the notion of activation, but in referring to the "attention of the participants", Rochement is introducing a psychological notion into his notion of c-construability, and one that sounds like activation. While Rochement only introduces the notion of "the attention of the participants" in this specialized case of nonlinguistic context, his definition of c-construability fails to capture the fact that in all of the other cases of c-construability, the attention of the participants appears to be directed towards the nonfocus as well.

In short, it is clear that Rochement has in mind a notion that is extensionally very similar to activation. The problem is that his definition remains somewhat vague and he ends up providing a list of situations in which something is activated in the mind of the hearer, without capturing the generalization that this is what all of these situations share.

### 8.2.3. Cleft sentences

While the claims of Rochement are largely consistent with those of this paper, particularly in the shared claim that nonfocus is not associated with presupposition, one difference between our positions lies in our claims about cleft sentences. A number of the arguments in section 5 above illustrate a contrast between clefts and simple focus in a way that I argued can be explained by assuming that the wh-clause in clefts involves presupposition while the nonfocus in simple focus sentences involves activation. Rochement, however, intends his claim to extend to cleft sentences as well, and he therefore denies that the wh-clause in clefts involves presupposition as well. But such an approach would seem to fail to account for the contrasts I have cited between clefts and simple focus sentences.

Rochement in fact does recognize that there are differences between clefts and simple focus sentences and notes (pp. 130–131) that an approach that claims that it is presupposition that is associated with the nonfocus in clefts would account for these contrasts. But he offers an alternative account of the contrasts he cites in terms of a contrast between c-construable material and *directly* c-construable material, where directly c-construable material appears to correspond to my notion of activated, and excludes material that corresponds to my notion of accessible. Thus on



his account, while the nonfocus in simple focus sentences need only be c-construable, either directly or indirectly, the nonfocus in cleft sentences must be directly construable. However, while he offers this alternative account and argues that it will account for the contrasts between clefts and simple focus sentences that he notes, he gives no argument *against* the alternative account in terms of presupposition. The particular contrasts that he notes are thus accountable either in terms of presupposition or in terms of direct construability. For example, he observes that the example in (59a) is natural as the first utterance in a discourse, while (59b) is not.<sup>37</sup>

(59) (a) JOHN was here.

(b) It was JOHN that was here.

Under a presupposition analysis, (59b) is unnatural as the beginning of a discourse, since the presupposition that someone was here would be absent in such a context. Under Rochement's analysis in terms of direct c-construability, (59b) is unnatural in such a context, because nothing is directly c-construable (or activated) in such a context.<sup>38</sup>

On the other hand, many of the contrasts between clefts and simple focus sentences that I have discussed above do *not* seem amenable to an account in terms of direct c-construability but can only be accounted for in terms of presupposition. Consider the contrast between (14) and (15) repeated here.

(14) A: Did anyone see John?

B: MARY saw John.

(15) A: Did anyone see John?

B: #It was MARY that saw John.

We can account for the contrast between (14B) and (15B) in terms of presupposition: (15B) is odd because it presupposes that someone saw John, but it is clear from A's question that A does not share this belief. However, the material in the that-clause in (15B) is apparently directly c-construable here since it corresponds to material that occurred in the immediately preceding discourse. Hence Rochement's theory would predict that (15) should be as acceptable as (14), while an account in terms of presupposition would correctly account for the oddity of (15).<sup>39</sup> Hence a

<sup>37</sup> Following Lambrecht (1992, 1994), I would argue that (59a), occurring as the first utterance in a discourse, does not involve *John* as focus, but rather sentence focus in a sentence whose verb phrase has the syntactic and semantic properties that result in the focus falling on the subject rather than the verb phrase. Thus for me, (59a) and (59b) differ not only in that the latter is a cleft sentence, but also in that (59a) involves sentence focus, while (59b) involves focus on the subject. I will ignore this for the purposes of the present discussion.

<sup>38</sup> The example in (59b) would, I assume, be possible at the beginning of a discourse if the physical environment causes the hearer to assume that someone was here. But both the presupposition analysis and Rochement's alternative account in terms of direct c-construability would account for this.

<sup>39</sup> In my judgment, the example in (15B) is not as odd as some that I have discussed. I assume that this is because accommodation is marginally possible here, with an elliptical *Yes* preceding the sentence in (15B).

presupposition analysis of clefts is apparently to be preferred over one in terms of direct c-construability.

### 8.3. Prince

Prince (1981a) is often cited – and rightly so – as an important milestone in the clarification of widespread terminological confusion surrounding the use of the expressions *given information* and *new information*. One of her distinctions, between *shared knowledge* and *saliency*, is apparently equivalent to the distinction that I have made here between pragmatic presupposition and activation. However, despite her attempts at clarifying the situation, some confusion remains regarding the status of propositional entities as opposed to the denotations of noun phrases. While Prince (1981a) deals primarily with the latter, a number of her later papers do discuss extensively the status of propositions in the discourse with respect to different notions of 'given'. In Prince (1985), she refers to two ways in which a proposition can, loosely speaking, be given, as *Clark-given* and *Chafe-given*, corresponding roughly to what I have been calling *pragmatically presupposed* and *activated* respectively. However, her discussion seems to assume that activated propositions are a subset of propositions that are pragmatically presupposed. While Clark-given propositions correspond to pragmatically presupposed propositions, she assumes that Chafe-given propositions are both activated *and* pragmatically presupposed. For example, in discussing the Topicalization construction in English, she states that sentences involving this construction have the property that "if one constituent is replaced by a variable, the resulting Open Proposition is already known and salient, i.e. Chafe-given" (p. 72). In fact, her arguments do show that both presupposition and activation (using my terms) are relevant to this construction. But her discussion appears to exclude the possibility that a proposition might be activated but not presupposed. Thus, rather than just the two possibilities she discusses, there are really three: those that are pragmatically presupposed (regardless of whether they are activated), those that are both pragmatically presupposed and activated, and those that are activated (regardless of whether they are pragmatically presupposed). The constructions that Prince discusses involve (or appear to involve) one of the first two of these three possibilities. The arguments of this paper show that the simple focus construction is an example of a construction which involves the third possibility.

Similarly, in Prince (1986), she describes the nonfocus in various types of focus constructions, including simple focus, as involving a *presupposed open proposition*. She further characterizes her use of the term *presupposition* as applying to salient shared knowledge (p. 209) (and thus contrasting with my use of the term). In other words, a proposition is apparently presupposed, on her use of the term, if it is *both* salient *and* shared knowledge, or, in the terminology of this paper, if it is both activated and pragmatically presupposed. She claims, for example, that in her example in (60), the speaker of the simple focus sentence in (60a) is taking the open proposition in (60b) to be salient shared knowledge.



- (60) (a) She gave the SHIRT to Harry.  
 (b) She gave X to Harry.

But the arguments in this paper show that (60b) need not be pragmatically presupposed (her 'shared knowledge'), that it only needs to be activated (her 'salience'). Again Prince apparently assumes two possibilities when there are in fact three, and her analysis fails to distinguish simple focus constructions from other constructions in which the nonfocus must be both pragmatically presupposed *and* activated.

An additional problem arises, however, when we ask what Prince could mean when she says that an open proposition is presupposed. Consider her example in (60). While it may make sense to speak of the open proposition in (60b) being salient or activated, it is not clear what it could mean to say that it is shared knowledge or pragmatically presupposed, because it is not clear what it could mean to say that someone *believes* an open proposition. It makes sense to speak of someone believing the existential closure of an open proposition, in which case we can speak of the existential proposition in (61) as being pragmatically presupposed.

- (61) There is an X such that she gave X to Harry.

But if this is what Prince means, then the evidence cited in this paper that the nonfocus need not involve pragmatic presupposition is evidence against her assumption that the nonfocus involves salient shared knowledge. On the other hand, if we take Prince literally, that it is the open proposition in (60b) rather than the existential proposition in (61) that is shared knowledge, then her claim is apparently nonsensical, since open propositions are not the type of thing that can be the object of belief, since they are not the type of thing that can be true or false, and thus not the type of thing that can be shared knowledge.

The evidence cited above, arguing that the relevant requirement is that the existential proposition associated with the nonfocus be activated, can presumably be stated equally well in terms of the activation status of the open proposition, since it does make sense to say that the open proposition in (60b) is activated after a question like one of those in (62) has been asked.

- (62) (a) What did she give to Harry?  
 (b) Did she give anything to Harry?

All of this argues that Prince's reference to shared knowledge is mistaken in this context. However, an alternative interpretation of Prince's view is that she is employing the expression 'shared knowledge' to denote, not beliefs shared by the speaker and hearer, but simply propositions that are mentally *represented* by both the speaker and hearer (in the sense of section 4 above). On this interpretation, activated propositions *are* a subset of 'shared knowledge', and her claims about simple focus sentences are nonproblematic. What does become a problem, however, is that her notion of 'shared knowledge' is now too weak to account for the kinds of phenomena that involve pragmatic presupposition, where the propositions in question

must not only be represented in the minds of the speaker and hearer but must also be shared beliefs.

#### 8.4. Vallduví

Vallduví (1992) presents a theory of information structure in which he makes a number of claims relevant to those of this paper, some of them consistent with the claims of this paper, others apparently inconsistent, though it is not clear whether some of the points of inconsistency are not terminological. He notes that examples like (63) are incompatible with the view that what I am calling the nonfocus is presupposed.<sup>40</sup>

- (63) I saw NOBODY at the party.

He also notes the contrast between simple focus examples like (63) and cleft examples like (64), and claims (as I do) that these examples illustrate that cleft sentences do involve presupposition.

- (64) \*It is NOBODY that I saw at the party.

Vallduví's explanation, however, of the contrast between simple focus and cleft focus is different from mine. He claims that simple focus sentences do not involve a presupposition in the sense of a shared belief in the proposition corresponding to the nonfocus but just a belief by the speaker that the hearer believes the proposition corresponding to the nonfocus.<sup>41</sup> In other words, he claims that the crucial difference

<sup>40</sup> Vallduví's discussion of this example is potentially confusing, however, in that he describes this example as illustrating that it is possible for the 'presupposition' [his scare quotes] to be not presupposed (p. 38), where he is using the noun *presupposition* in the nonstandard sense associated with the tradition of Jackendoff and Chomsky, while he is using the verb *presuppose* in the standard sense, as in this paper. His discussion is further confusing in that he describes the 'presupposition' of (63) to be the open proposition (i), and he claims that (63) does not presuppose or entail (i).  
 (i) I saw x at the party.

However, strictly speaking it makes no sense to ask whether a sentence entails or presupposes an open proposition since open propositions cannot be true or false, any more than any expression that is less than a complete proposition can. What he seems to mean in saying that (63) does not entail or presuppose (i) is that it does not entail or presuppose the existential closure of (i), namely (ii).

(ii) (∃x) I saw x at the party

Much of Vallduví's discussion surrounding the nonfocus only makes sense if we interpret it as referring to existential propositions like (ii), rather than open propositions. In what follows I will assume that his claims are to be interpreted in this way.

<sup>41</sup> Following Prince (1986), Vallduví uses the expression *shared knowledge* for this notion. I find this choice of terminology particularly confusing, since the term *knowledge* in the context of propositions is normally taken to entail belief; however, on his use of the expression *shared knowledge* does not entail *shared belief*. All that is actually shared in this case is that the proposition is mentally represented. However, it is not enough on his use of the term that the proposition be just mentally represented by speaker and hearer; in addition the speaker must believe that the hearer believes it.

between simple focus and cleft focus is that while in both cases the speaker must believe that the hearer believes the proposition in question, only in the case of cleft focus does the speaker him/herself have to believe the proposition. This would account for the contrast between (63) and (64): (64) is impossible because felicitous use of it would require both that the speaker believes that s/he saw somebody at the party and that s/he believes that s/he saw nobody at the party. The sentence on (63) is possible, however, in a context in which the speaker believes that the hearer believes that the speaker saw somebody at the party but where the speaker does not believe that they saw anybody at the party, as in (65).

- (65) A: Who did you see at the party?  
B: I saw NOBODY at the party.

Vallduví's approach fails, however, because it is not in general the case that the hearer believes the proposition in question, as can be illustrated by many of the examples cited above. For example, in all four of (11), (14), (16) and (17), repeated from above, it is clear from A's question that B has no reason to believe that A believes that someone saw John.

- (11) A: Who if anyone saw John?  
B: MARY saw John.  
(14) A: Did anyone see John?  
B: MARY saw John.  
(16) A: Did either Mary or Sally see John?  
B: MARY saw John.  
(17) A: Did Sally see John?  
B: No, but MARY saw John. (or No, but MARY did.)

In all of these cases, all that is necessary is that the speaker believes that the existential proposition is activated in the mind of the hearer, not that s/he actually believes that proposition. In fact, it is easy to find contexts in which examples like (63) (with focus on *nobody*) are possible in which the speaker does not believe that the hearer believes the existential proposition corresponding to the nonfocus, as in (22), repeated from above.

- (22) A: John thinks that Bill is in the house, but I know that he isn't.  
B: Is SAM in the house?  
A: NOBODY is in the house.

A's response in (22) is perfectly appropriate even if A lacks a belief that B believes that someone is in the house. What is crucial again is simply that the proposition has been activated; there is no need for either the speaker or the hearer to believe it.<sup>42</sup>

<sup>42</sup> As noted in footnote 40, Vallduví's claim is actually that the speaker believes that the hearer believes the open proposition rather than the existential proposition. Applied to the last sentence in (22),

### 8.5. Lambrecht

Lambrecht (1986, 1994) presents a detailed discussion of the pragmatic notions of presupposition and activation (as well as various related notions). Unfortunately, despite his detailed discussion, I find his claims regarding the pragmatic status of nonfocus confused.<sup>43</sup> Part of the problem is that Lambrecht frequently fails to make one of the distinctions that is central to this paper, between propositions which are believed by an individual and those which are merely mentally represented. He thus employs the expression *pragmatic presupposition* in a systematically ambiguous way, sometimes apparently using it to denote only those propositions which are beliefs, at other times apparently using it to denote any propositions that are mentally represented.

Lambrecht's definition of pragmatic presupposition appears at first sight to be the same as that assumed in this paper and to be restricted to propositions that are believed by the speaker and hearer.

#### (66) Pragmatic presupposition:

The set of propositions lexicogrammatically evoked in a sentence which the speaker assumes the hearer already knows or is ready to take for granted at the time of speech. (p. 52)

But various comments in his book indicate that he is using the verb *know* in a broad sense that corresponds to my notion of mentally represented. For example, he states (p. 44): "'To have knowledge of a proposition' is understood here in the sense of 'to have a mental picture of its denotatum', not in the sense of 'to know its truth'." On the other hand, he later appends (p. 73, section 3.3) to the definition in (66) the following definition proposed by Stalnaker (1974: 200).

- (67) A proposition P is a pragmatic presupposition of a speaker in a given context just in case the speaker assumes or believes that P, assumes or believes that his addressee assumes or believes that P, and assumes or believes that his addressee recognizes that he is making these assumptions or has these beliefs.

This amendment to the definition would seem to unambiguously restrict the notion of pragmatic presupposition to propositions that are believed, rather than any propositions which are mentally represented. Lambrecht is apparently failing to distin-

it would predict that A believes that B believes the open proposition *x is in the house*. As noted in that footnote, however, this does not make any sense literally, in that open propositions are not the kind of thing that can be believed. My argument against Vallduví is thus not an argument against what he actually says, but at best an argument against what he seems to mean. I know of no other plausible interpretation of his claim that is consistent with the example in (22).

<sup>43</sup> There are in fact important differences between the claims of Lambrecht (1986) and Lambrecht (1994), and the claims of the earlier work seem less compatible with the arguments of this paper. However, since the later work is intended as a rewriting and elaboration of parts of the earlier work, I will have no more to say about the earlier work.

guish between these two possible cognitive statuses of propositions. As a result, all of his claims that refer to pragmatic presupposition are subject to two interpretations, a narrower one based on shared beliefs and a broader one based on shared mental representation.

Because of the ambiguity in his use of the notion pragmatic presupposition, his definition of focus, given in (68), is similarly ambiguous.

(68) *Focus*:

The semantic component of a pragmatically structured proposition whereby the assertion differs from the presupposition. (1994: 213)

The effect of this definition is that the nonfocus is equated with the presupposition. If we interpret presupposition in the narrower sense, involving shared belief, (68) apparently constitutes an example of the claim that this paper is arguing against, that nonfocus involves pragmatic presupposition. On the other hand, if we interpret *presupposition* in his definition in the broader sense, to mean mentally represented, then the information structure analysis of the simple focus sentence in (69) would apparently be that given in (70), placing the label *presupposition* in scare quotes to make clear that it is being used in the wide sense, in order to avoid confusion with the standard narrower sense.

(69) MARY saw John.

(70) (a) 'Presupposition': There is an x such that x saw John.

(b) Assertion: x=Mary

Given his definition of focus in (68), Mary counts as the focus, since the x in the assertion occurs in the 'presupposition'. This is consistent with the claims of this paper, although it implies that the nonfocus could be a proposition that is represented but neither believed nor activated.

But serious problems arise when we consider his definitions more carefully. There would also appear to be a presupposition in (69) (in either the narrower or broader sense of the term) that there is somebody called Mary and a corresponding metaphor-supposition that the hearer can identify the individual being referred to by Mary. But then Mary is part of a presupposition and thus, if we take his definition literally, not part of the focus. The point is perhaps brought out more clearly by the contrast between the two sentences in (71).

(71) (a) It is the man that Mary met in Chicago that she is dating.

(b) It is the man that Mary is dating that she met in Chicago.

These two examples both involve the presuppositions and assertions stated loosely in (72) and (73) respectively, where presupposition here is taken in the more standard sense of shared belief, but since beliefs form a subset of propositions that are mentally represented, the same comments extend to presupposition in the broader sense.

- (72) (a) Presup: X is a man  
Mary met X in Chicago  
Mary is dating Y  
(b) Assertion: X=Y
- (73) (a) Presup: X is a man  
Mary is dating X  
Mary met Y in Chicago  
(b) Assertion: X=Y

Since both X and Y are involved in presuppositions in both (72) and (73), the only part of the assertion that is not involved in the presupposition is the identity relation, which by Lambrecht's definition ought to be the focus of both sentences in (71). But it is clear that Lambrecht would be as unwilling to accept this as anyone else, that Lambrecht wants the cleft NP to be called the focus.

It is also clear from other discussion by Lambrecht how he would respond to this argument. In his discussion (p. 233) of sentence-focus, he uses the example in (74), occurring in a context such as one in which it is a response to a question *What happened?*

(74) My CAR broke down.

He argues that there is no presupposition here so that the entire sentence is focus. He notes that there are presuppositions associated with the subject noun phrase *my car*, such as that the speaker has a car, but argues that these presuppositions are not relevant to the determination of the focus domain. However, it is not clear how he can maintain this without circularity. If focus is *defined* as the assertion minus the presupposition, it is not clear how we can exclude this presupposition simply because it is intuitively irrelevant to determining the focus domain. Hence his attempt at defining focus in terms of presupposition, either in a narrow sense of shared beliefs, or in a broader sense of shared mentally represented proposition, does not appear to work.

A final problem with Lambrecht's theory is that if we interpret pragmatic presupposition in the broader sense that simply involves mental representation, his theory is no longer able to account for various phenomena which require a notion of pragmatic presupposition in the narrower sense of shared beliefs. The distinction between simple focus and clefts that I have argued for in this paper is one that cannot be made without recognizing the significance of shared beliefs, since simple focus sentences involve the shared activation status of mentally represented propositions, while cleft sentences involve shared beliefs.

## 8.6. Dik

Pragmatic notions like focus play a major role in the theory of Functional Grammar of Dik (1978, 1989), and a number of issues surrounding focus have been discussed at some depth in that framework (cf. Dik et al., 1981). In some respects, Dik's discussion of focus is like that of many other linguists in failing to distinguish

presupposition (in the sense of shared belief) from activation. He characterizes focal information as concerning “the changes that S wishes to bring about in the pragmatic information of A” (1989: 277), where his definition of pragmatic information (1989: 9) appears to be equivalent to the notion of mentally represented discussed in this paper. A number of the sorts of problems discussed in the context of other linguists in the preceding sections appear to apply to Dik’s characterization, but to avoid being repetitious, I will ignore these issues here.

What is more original about Dik’s discussion is his actual definition of focus. He defines focal information as “that information which is relatively the most important or salient in the given communicative setting, and considered by S to be most essential for A to integrate into his pragmatic information” (1989: 277). While this definition is rather vague (as Siewierska, 1991: 174 admits), its appeal to a notion of importance makes it rather different from other definitions. Under such an approach, one might argue that the relationship of nonfocus to activation discussed in this paper is simply a predictable correlate of focus rather than part of what focus itself involves. One might argue, for example, that in instances in which the nonfocus corresponds to an activated proposition and the focus to something that is not activated at the time of speech, the element that is not activated at the time of speech is in some sense more important in the communicative setting in that bringing it from a nonactivated state to an activated state involves a more significant change in the cognitive state of the hearer, and that what is crucial is the difference in importance rather than the relative activation per se. One might also apply this to instances in which everything in an utterance is already activated but the nonfocus corresponds to what is the focus of the hearer’s attention.

Nevertheless, because of the vagueness of the definition, as well as the practical difficulty in determining what is ‘most important’, it is not clear how one might distinguish a hypothesis formulated in terms of a notion like ‘importance’ from one formulated in terms of activation. In addition, I have argued that the simple focus construction and the cleft construction in English differ in whether it is activation or presupposition that is involved. It is not clear how one might characterize this difference in terms of a notion like importance.<sup>44</sup> Despite offering a typology of different focus constructions (Dik et al., 1981), Dik’s theory does not seem to provide for the possibility of this type of difference.

<sup>44</sup> Dik et al. (1981: 47) argue that cleft sentences in English differ from simple focus in that in cleft sentences, the clefted element is implied to exhaust the set of possibilities so that *It is X that P* implies that there is no Y other than X for which *Y P* is true. While this may be true, they also differ in whether the existential closure of the open proposition corresponding to the nonfocus is presupposed. The exchange in (i) is anomalous, despite the exhaustiveness, precisely because the presupposition of existence is absent:

(i) A: Did you see anyone?

B: “It was Mary, and only Mary, that I saw.”

## 9. Conclusion

I have attempted in this paper to sort out some of the confusion surrounding the pragmatics associated with the nonfocus in simple focus sentences. I have argued that despite frequent claims that nonfocus involves presupposition, careful examination of the data shows that this is not so, at least in the strict sense of presupposition as involving propositions which are part of the common ground of propositions the speaker assumes that they and the hearer both believe.

One of the central points of this paper is that the activation status and the belief status of propositions are independent parameters, something that seems to have been widely overlooked: there are not only activated beliefs and nonactivated beliefs, but also activated propositions that are not believed. This raises questions about the relationship of propositions to other sorts of discourse entities like individuals and events. It is not clear whether there is a distinction in the case of individuals that corresponds to the distinction between activated propositions that are shared beliefs and those that are not. One might suggest that activated propositions that are not shared beliefs are analogous to individuals like Santa Claus when such individuals are activated in discourses in which neither interlocutor believes in their existence. But there are important differences. Ontologically unusual individuals like Santa Claus do not behave linguistically in ways different from less unusual individuals. We do not, for example, find distinct types of pronouns for such individuals, nor is the grammaticality or even the appropriateness of different syntactic constructions sensitive to such distinctions between individuals (though there may be lexical items such as *so-called* whose meaning is related to such distinctions). On the other hand, both activation and shared belief operate independently as relevant parameters in different syntactic constructions, and in some cases, as argued by Prince (1985: 72), constructions require that a particular proposition be both activated *and* a shared belief. This suggests that there are a greater number of linguistically relevant distinctions among propositions than there are among individuals. But I leave such questions regarding the status of propositions as discourse entities to future research. There is a general moral to the conclusion that it is activation and not presupposition that is relevant to the pragmatics of simple focus sentences. Much work in pragmatics has taken truth-conditional semantics as its starting point, and the evolution of ideas about pragmatic presupposition reflects a set of phenomena which proved difficult to handle within a purely semantic theory. But presupposition remains truth-conditional in the sense that presuppositions are propositions which the speaker and hearer *believe*, and believing a proposition involves believing it to be *true*. The notion of activation represents one step further from truth-conditional semantics, in that it involves a cognitive relationship between individuals and propositions that is independent of whether those individuals believe that the propositions are true or not, and illustrates the extent to which phenomena that are traditionally thought of as pragmatic must go well beyond semantic notions and make direct reference to cognition.

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Although this type of conversational coordination has been investigated from different points of view over the years (Sacks et al., 1974; Van Dijk and Kintsch, 1983; Schiffrin, 1987a, b), a general theory of language use accounting for it, is still, in Kasher's (1991a: 129) words, "..."

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Kasher, Asa. 1991a. Pragmatics and Chomsky's research program. In: A. Kasher, ed., *The Chomskyan turn*, 122-149. Oxford: Blackwell.

Kasher, Asa. 1991b. On the pragmatic modules: A lecture. *Journal of Pragmatics* 16: 381-397.

Sacks, Harvey, Emanuel A. Schegloff and Gail Jefferson, 1974. A simplest systematics for the organization of turn-taking for conversation. *Language* 50: 696-735.

Schiffrin, Deborah. 1987a. Discourse markers. Cambridge: Cambridge University Press.

Schiffrin, Deborah. 1987b. Toward an empirical base in pragmatics. *Language in Society* 16: 381-396.

Van Dijk, Teun A. and Walter Kintsch. 1983. *Strategies of discourse comprehension*. New York: Academic Press.

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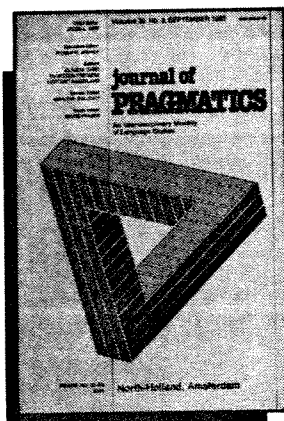
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