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## A Psychological Investigation of the Processing of Cleft Constructions<sup>1</sup>

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In this note, I outline two issues relating to the psychological processing of cleft constructions which have come to light in my examination of the choice and use of clefts in discourse (Delin [1989]). These are suggested as avenues for further experimentation. In the course of the exposition, I outline previous relevant experiments involving cleft constructions.

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## 0.1 Introduction

This note is intended to invite comment, from those involved in research on aspects of the human sentence processing mechanism in particular, on how experiments might be designed to evaluate the issues it introduces.

The note begins by introducing some terminology frequently used in the discussion of the structure and function of cleft constructions, and then goes on to describe related research on the processing of clefts. Finally, two issues are pointed out that might be worthy of further investigation:

- Whether the postponement of the cleft presupposition by the interpolation of lexical material before it increases the processing load involved in understanding the sentence; and
- How the preponderance of clefts with New information appearing in presupposed form might call into question established views on the processing of clefts, particularly in relation to Clark and Haviland's [1977] 'Given-New' theory of sentence processing.

### Terms of Reference

In the discussion below, the following terms will occur with regularity:

- Given
- New
- Presupposition
- Assertion
- Focus II

These cause some confusion, and so it is as well here to make clear what significance each has in the discussion.

Confusion often arises regarding what is meant by the term PRESUPPOSITION. With respect to cleft constructions, there is general agreement among semanticists that the cleft complement or *wh*-clause induces a presupposition in a *semantic* sense—that is, that the information borne by that part of the sentence is a proposition that is true regardless of the truth value of the sentence as a whole. This means, for example, that both (1a) and (1b) will convey the proposition realised as (1c):

- (1) a It was John who ran.
- b It wasn't John who ran.
- c Someone ran.

Presuppositions such as (1c) are conveyed, moreover, regardless of the discourse status of the presupposed proposition—that is, whether or not the hearer or reader is thought by the speaker or writer to already be aware of the presupposed information. This notion of presupposition, then, can be associated with the *syntactic structure* of the construction with a reasonable degree of assurance, since it seems to be induced by it.

In my own research, therefore, I have taken care to distinguish clearly between the semantic notion of presupposition explained above, and information that may or may not be available to hearers at the time of encountering the presupposition. On this view, it is perfectly coherent to presuppose information that is not known to a hearer at the time of encountering the cleft—we will see examples of this shortly. In a similar way, I refer to the residue of information that is not presupposed by the cleft as the ASSERTION—in the example above, the assertion is the proposition that conveys that the runner is John. This is the asserted information regardless of what is already known by hearers at the time of encountering the cleft.

Problems occur, however, when the syntactic-semantic notion of presupposition described above is conflated with the discourse notion of GIVEN INFORMATION and assertion conflated with NEW INFORMATION. In the research to be discussed below, the terms Given and New are used ostensibly in their Hallidayan sense (cf. Halliday [1967], [1985], for example). Halliday's use of the terms can be paraphrased as follows:

**Given information** Information that is presented by the speaker as recoverable to the listener. It may have been mentioned before, it may be something that is in the situation, or that is not around at all but the speaker wishes to present it as Given. The meaning is: this is not news.

**New Information** Information that is presented by the speaker as not recoverable to the listener. It may be something that has not been mentioned, it may be something unexpected, whether previously mentioned or not. One form of Newness is contrastive emphasis. The meaning is: attend to this, this is news.

The basis of the relationship between Given and New and the sentences they are intended to describe is the TONE UNIT, an abstract phonological unit usually characterised as having one particularly prominent accent—the NUCLEUS—and a recognisable intonation contour. On Halliday's account, tone units function as the realisation of an abstract unit of INFORMATION, which he terms the INFORMATION UNIT or IU (Halliday [1976:202, 1985:275]). It is in relation to these units, rather than in relation to the tone unit, that information structure is assessed.

In the psychological research on cleft constructions (and elsewhere), it is a common assumption that one can point to a particular syntactic position in the sentence and assume that this is invariably the site of 'Given' or 'New' information—even for written examples, and

examples out of context. This, however, is a faulty assumption to make, both on the basis of counterexamples in the clefts data and facts about the notions of Given and New as Halliday defines them.

Firstly, according to Halliday, IUS may consist of either a Given and a New element, or be composed *entirely* of New information. There is nothing to suggest, then, that Given information has to appear at all. Secondly, the site of New information is noted by Halliday to be marked by a nucleus. The definition of New therefore seems to depend not on syntactic position but on prosodic clues, which are not available at all from the written examples often used in the research discussed below. Even if such clues are used, Halliday notes that it is impossible to tell from them the *extent* of the New information—it is only possible to know that it occurs somewhere in the material over which the nucleus has its scope. Thirdly, although Halliday notes that *in general*, Given information precedes New, exceptions to this mean that syntactic position cannot be used as the basis for deciding on where information of a specific type lies.

In spite of these three facts, the research to be discussed below adopts the assumption that Given information is always present in—and is indeed indicated by—a predictable syntactic position in cleft constructions, even in decontextualised written language (and therefore regardless of context and accentual pattern). For example, it would be assumed that the information *someone ran* is the Given information in (2) and (3):

(2) It was John who ran

(3) The one who ran was John

It would seem that, aside from the theoretical difficulties inherent in applying a view of information structure based on syntactic position, the data on clefts also fail to bear out this view. For some examples *in context*, it would seem that the term ‘Given’ is indeed the appropriate one to apply to this information, according to Halliday’s definition of the notion. For example, in (4), the information conveyed by the syntactic complement of the *it*-cleft would seem to be unequivocally Given information:

(4) A: Who ran?

B: It was John who ran.

As I have shown, however (Delin [1989]) this is by no means the most usual case: more frequently, the information that appears in the syntactic complement of the *it*-cleft does not fit the traditional use of the term ‘Given’. For example, in a detailed study of 50 of each of the three syntactic types of cleft taken from a corpus of naturally-occurring data, I found that 90% of *it*-clefts, 92% of *wh*-clefts, and 100% of reverse *wh*-clefts contain at least one element in the complement or *wh*-clause that could appropriately be described as New. Underlining this is the fact that in a spoken corpus of the same size, 82% of *it*-clefts, 80% of *wh*-clefts, and 100% of reverse *wh*-clefts contained a nucleus somewhere in the presupposed information, nuclei being considered by Halliday to be the *primary* indicators of New information. Both the above observations, moreover, underline the fact that the appearance of New information in cleft presuppositions is systematic and prevalent, rather than being the exception.

The information in the syntactic complement of the reverse *wh*-cleft in (5), for example, would perhaps fit Halliday’s definition of New information more closely:

- (5) we’re big enough to stand on our own two feet now and this is what  
Vincent said NO about

In the research to be discussed below, two approaches are taken to the question of the kind of information that is taken to appear in cleft complements and *wh*-clauses. Hornby [1974] takes the approach of assuming that the information appearing in the complements and *wh*-clauses of cleft constructions is uniformly Given in the sense that the information is already available to hearers or readers at the time of encountering the cleft. That is, the research does not consider examples such as (5), where the information is *not* available, to be commonplace, even assuming that in these cases ‘deliberate deception’ on the part of the speaker is taking place in that non-Given information is being passed off as Given. The other approach, that taken by Carpenter and Just [1977], Clark and Haviland [1977] and Clark and Clark [1977] is to view the cleft construction as one that syntactically marks information in the complement or *wh*-clause as information that is intended to be treated as Given—even though it may in fact be novel to the hearer. This latter approach seems to be more realistic, given the preponderance of examples where this is the case.

However, it is also necessary to point out that what we noted above to be the *assertion* conveyed by the cleft is not necessarily New information, as it sometimes also assumed. For example, in (5), the referent of the noun phrase *John*, which is part of the asserted information, has already to be accessible to the hearer, and cannot therefore be New information. It is, as Clark and Clark [1977:95] point out, only necessary for the *identification* of John with the runner introduced as part of the presupposition to be New information. This is not the same as the *reference* to John being New.

Finally, it remains to note a tendency to point to a particular syntactic part of the cleft—the cleft HEAD as it is termed here, *John* in each of the following examples—as the indicator of the FOCUS of the cleft construction:

- (6) a It was John who ran.  
b The one who ran was John.  
c John was the one who ran.

Again, as I have argued in detail elsewhere (Delin [1989]), the information borne by the head of the cleft seems not to feature prosodic nuclei more frequently than elsewhere in the cleft, nor is it the site of more antecedents to pronominal anaphors, or the site of information more frequently taken up as topic for further development in the discourse, any more than material appearing elsewhere in the cleft. There may be other discourse effects of what it means for information to be ‘in focus’, but these are the three most frequently suggested for clefts at least. It is therefore the practice here to avoid the term ‘Focus’ entirely, since it seems that what is ‘in focus’ is an open question, accessible (possibly) by psychological experimentation.

These terminological contortions may seem merely pedantic, but they are in fact vital to the understanding of the content of this paper. In what follows, we will see that researchers who

conflate the terms Given and Presupposition, in particular, have tended to miss a large and important section of the clefts data: that which presents information that is new to the hearer as part of the presupposed information.

In the discussion of research on clefts that follows, I will be as clear as possible in my use of terms, adhering in general to the terminology of the researchers in question during the discussion but attempting to make clear where discrepancies between their terms and my own will make a difference to the interpretation of results.

## 0.2 Processing Cleft Constructions: Previous Research

In this section, I will note some previous research in the psychological processing of cleft constructions that is necessary for understanding the orientation of the proposed investigation. In particular, I would like to draw attention to research on the role of presupposition in clefts for conveying New information, and how the view of that role has changed over the course of time.

### Deception by Presupposition

In an early paper, Hornby [1974] was interested in ascertaining the difference in processing effects that arise from placing information in syntactically distinct parts of cleft and other sentence types. Hornby's experiment consisted of showing subjects a simple picture, in which, for example, a girl might be riding a bicycle. He then gave subjects a sentence that was purported to describe the picture, which, he warned them, might contain some false information. Hornby was interested in the extent to which the position of the false information could influence whether or not it was detected. For example, given a sentence such as (7), he was interested to see whether subjects were more likely to question the fact that the bicycle is being ridden (the presupposition) or the fact that the girl is riding it (the assertion):

(7) It is the girl who is riding the bicycle.

Hornby found that subjects were much more likely to spot information that was false with respect to the picture shown them if that information was contained in the assertion (e.g. if the picture showed a boy riding a bicycle) than they were to spot false presuppositions (e.g. if the girl was riding a pony). Hornby explains this result in terms of Hutchinson's [1971] view of the use of presuppositions in discourse, and argues as follows [1974:531]:

...presupposition can be employed correctly only when the speaker knows the presupposed proposition to be true and also believes that his listener knows it to be true. The asserted or focal proposition, on the other hand, is something that the speaker believes to be true, but that he believes his listener is not aware of. Hutchinson also suggests that a speaker might employ a false presupposition

in order to intentionally deceive his listener ...If it were the case ...that such sentence constructions [i.e. clefts, JLD] are usually produced only in situations in which the listener already knows the presupposed information, then it follows that the presupposed part of the statement is not usually providing the listener with any new information. In judging whether or not such statements were true, the listener would be concerned primarily with the new information that the speaker is presenting.

As I have argued above, and shown in detail elsewhere (Delin [1989]), it is not always the case either that the speaker believes that the hearer knows the presupposed proposition to be true, or that the asserted proposition is believed to be new to the hearer. What seems to be at issue is simply the distinction between presupposed and asserted information.

Hornby argues that, in integrating the content of cleft constructions into memory, subjects' attention is in fact directed away from the presupposed information, and this is why false information tended not to be detected. He suggests instead that the 'focal' part of the sentence is the asserted information, and subjects accordingly concentrated on this—that they 'rely heavily on grammatical structure to determine what is most important in the sentence' [1974:533]. It could be argued, however, that the explanation of Hornby's results does not lie in the fact that readers pay more or less attention to parts of the sentence. This is particularly unlikely since, in the majority of *it*-clefts I examined, and in all the *wh*-clefts, New information, and in the spoken data, nuclear accents, (which are often supposed to indicate salient information or 'Focus') appeared in the presupposed part of the sentence.

It is plausible to suggest that clefts do not so much cause hearers and readers to ignore one part of the content at the expense of another, but to process them differently. Presupposed information is treated by hearers as fact, and accommodated as such if it is not known already. Prince [1978] suggests that this 'known fact' reading of presuppositions is available only for *it*-clefts; it seems clear, however, that it is available from presuppositional constructions in general. This would predict that similar results to Hornby's would be obtained from other presupposition-inducing constructions, such as definite referring expressions and *regret that x* constructions. It can hardly be argued in the face of this that such examples are always explicable as cases where the speaker is 'intentionally deceiving the listener', as Hornby assumes—they are simply part of the natural mechanism of asking listeners to accommodate new information.

## Presupposing New Information

Later work on sentence processing, due to Clark and Haviland [1977] in particular, allows for a view of cleft presupposition in which the appearance of information not already known to hearers in the presupposed proposition is not seen as such as deviation from the norm. Their account of sentence processing in general, and of the processing of cleft constructions in particular, centres on the view that the task of a hearer on encountering an utterance in discourse is to find the optimum means of integrating the content of that utterance into memory.

On Clark and Haviland's account, one of the first tasks of a hearer or reader in processing a unit of language is to identify which part of the message is the part which should, on the basis of the cues given by the speaker, have an ANTECEDENT in memory. Clark and Haviland refer to this identification task as the application of the GIVEN-NEW STRATEGY, in which hearers and readers identify Given information as that which has a unique antecedent, the location of which is the address or location in memory at which the incoming information is to be stored. Clark and Haviland's claim is that hearers or readers encountering a device such as a cleft are able from the form of the cleft to recognise information for which an antecedent should be present in memory, and go on to identify antecedents for that information (Clark and Clark [1977] express this as the search for information in memory that is CONGRUENT with the Given information).

In their suggestion for clefts, Clark and Haviland imply that the information identified by hearers as requiring an antecedent is in each case the presupposed information borne by the cleft—thereby implying that this information is always the 'Given' referred to by the Given-New strategy. They suggest that this information does not always have an antecedent available in memory at the time of the appearance of the cleft. The model, however, allows for this, in that it permits information to be presented as requiring an antecedent when no antecedent is in fact available. The cleft construction can be treated in Clark and Haviland's model as a construction that uses conventional syntactic signals to indicate that the presupposed information should be treated by the hearer or reader as if it had such an antecedent, by forming one for it at the time of processing—in formal terms, by ACCOMMODATING the antecedent (cf. Lewis [1979]).

Clark and Haviland's model suggests a psychological correlate to this process of accommodation. On their account, if the hearer or reader can find no direct antecedent for presupposed information at the time of processing, three compensatory strategies are available. The three strategies are, respectively, BRIDGING, ADDITION and RESTRUCTURING.

The following definitions of the three strategies are adapted from Clark and Haviland [1977:6ff]:

**Bridging:** When a listener or reader cannot find a direct antecedent for information marked as requiring one, he or she may be able to form an INDIRECT ANTECEDENT by building an inferential BRIDGE from something he or she already knows.

**Addition:** Sometimes it is impossible to form an inferential bridge between the incoming information marked as requiring an antecedent and an actual antecedent in memory. In this case, the hearer must ADD to memory something that will act as an antecedent, possibly newly constructed from the content of the message he or she is trying to process.

**Restructuring:** Restructuring is used as a last resort, when the material that is marked as antecedent-requiring does not seem to be the correct material to use as any kind of basis for a coherent relationship. In cases such as this, the hearer can re-interpret the markings of the incoming message until an interpretation is arrived at which enables either the location of an antecedent, or bridging or addition, to take place.

Clark and Clark [1977:96] note that, when the Given information is not available to the



hearer—in other words, when Bridging, Addition, or Restructuring has to take place—a greater processing load will result:

For the given-new strategy to work smoothly, given information must refer to information a listener has available in memory, typically facts that have just been mentioned. If the necessary facts have not been mentioned or have been mentioned too long ago, then integration by the given-new strategy ought to become more difficult.

This hypothesis is investigated by Carpenter and Just [1977], who performed a self-timed reading comprehension experiment to analyse subject's capacity to process short texts (pairs of sentences) in relation to the way information was arranged in the continuation sentences. Subjects were given a context sentence, and then a cleft construction that paraphrased the sentence. For example, (8) would be a sample context sentence, and (8a) and (8b) two alternative continuations:

- (8) The ballerina captivated a musician during her performance.
  - a The one who the ballerina captivated was the trombonist.
  - b The one who captivated the trombonist was the ballerina.

Carpenter and Just hypothesised that, in the cases where the Given information in the continuation sentences (that is, the presupposed information) was not just mentioned or 'on stage' at that moment in the discourse, the sentence as a whole should be integrated more slowly. In (8a), this criterion for Given information is satisfied, while it is not in (8b). The experiment showed their hypothesis to be supported: information in the presupposed or Given part of the cleft is integrated more slowly when it is not explicitly present in the discourse—that is, when it is not really 'Given' in the sense that it is already known to hearers and readers.

From the work of Clark and Haviland [1977] and Carpenter and Just [1977], then, it seems that there is room for a view of cleft constructions in which 'New' information appearing as presupposition is allowed for, resulting not in any breakdown of communication or 'deceit' but in increased processing time. It is upon this result, and in particular upon the predictions made by the Given-New strategy of Clark and Haviland for the processing of clefts, that I wish to base a further investigation of how cleft constructions are processed in spoken language.

### **0.3 Two Issues to Investigate**

The work of Clark and Haviland [1977] and Carpenter and Just [1977] suggest a role for the presupposed part of cleft constructions as the syntactic part of the sentence that bears the information in relation to which the content of the sentence as a whole is integrated in memory. It is demonstrated that this process is facilitated if the content of the presupposition is already available to the hearer, and made slower if it is not. Moreover, it is suggested

that the presupposition in each cleft is indicated to be ‘Given’ information. If the Given-New strategy postulated by Clark and Haviland is correct, then the presupposition will be identified by hearers and readers as the part of the sentence to be integrated into memory first.

In the light of these suggestions, we might want to investigate the following hypotheses surrounding the psychological processing of cleft constructions.

### **Postponement of Presupposition Results in Greater Processing Load**

In my thesis work, I suggested that, if the cleft complement or *wh*-clause acts as the processing cue for integrating the content of the cleft construction in memory, then we would expect clefts whose heads appear prior to the presupposed information do not carry a large amount of information in head position. On Clark and Haviland’s model, the information carried in the cleft head would have to be held in short-term memory until the presupposition had been processed. This, presumably, has an effect on the ease of processing of the various cleft types: *it*-clefts and reverse *wh*-clefts, which present presupposed information after the the cleft head, should be harder to process than the corresponding *wh*-clefts, which present presupposed information first. That is, in the clefts in example 6 above, repeated here for convenience, the (a) and (c) sentences should be harder to process than the (b) sentence:

- (9) a It was John who ran.  
b The one who ran was John.  
c John was the one who ran.

In addition, the processing overhead associated with presenting presupposition after other information would increase in proportion to the amount of information that needed to be stored in short-term memory while the presupposition was being awaited. In other words, the longer the cleft head, the greater that processing load. This would explain why a cleft such as (10a) appears to be more acceptable than either (10b) or (10c):

- (10) a What I wanted was one of those small, red umbrellas like they had on the telly and a pair of German binoculars like the ones Aunt Maud had from Cyprus.  
b It was one of those small, red umbrellas like they had on the telly and a pair of German binoculars like the ones Aunt Maud had from Cyprus that I wanted.  
c One of those small, red umbrellas like they had on the telly and a pair of German binoculars like the ones Aunt Maud had from Cyprus was what I wanted.

If this is the case, it would explain part of the reason for choosing a *wh*-cleft rather than an *it*-cleft or reverse *wh*-cleft in these cases.

## New Presuppositions and the Given-New Strategy

As we saw above, the Given-New strategy according to Clark and Haviland predicts that hearers and readers will identify the presupposition of the cleft construction as the bearer of the information with respect to which the rest of the content of the cleft is integrated into memory. This apparently takes place regardless of the discourse status of that presupposed information: if the information is genuinely available to hearers at the time of encountering the cleft, comprehension is facilitated; if it is not, hearers and readers are predicted to resort to a bridging strategy in order to provide an antecedent for the presupposed information.

‘Because of the given-new contract’, write Clark and Clark [1974:92], ‘listeners can be confident that the given information conveys information that they can identify uniquely. They understand that it is the information the speaker believes they both agree on ...’ Given the preponderance of examples where New information appears in presuppositions, it seems that the speaker believes nothing of the sort on producing a cleft, and that the listener can have no such confidence. Is it really true, therefore, that the presupposed information is always treated as the ‘Given’ information by the hearer, even though it is more often the case that the information will require one of the strategies of Bridging, Addition, or Restructuring? We know from the experiments of Carpenter and Just that cases where the presupposition contains unknown information take longer to process than those in which the information is known to the hearer, but we cannot tell from this exactly what subjects are doing that takes longer: the evidence is consistent with hearers performing the strategies of Bridging, etc., but is potentially also consistent with hearers restructuring in order to process the assertion first, for example.

The issue I am interesting in investigating in general is the role of presupposition in processing cleft constructions. As I suggest in my thesis, it is plausible to conclude that part of the function of cleft constructions in discourse is to indicate to readers and hearers that the presupposed information is that with respect to which the rest of the content of the cleft is to be integrated into memory. I would claim, however, that this is independent of what the discourse status of the presupposed information is expected to be—that is, it is not expected by hearers to be known to them, and error strategies adopted if it is not, since cases where the information is *unknown* appear to be predominant.

It would seem on first acquaintance that the Given-New strategy can predict this behaviour, and that I am merely quibbling about whether we talk about ‘presupposition’ or ‘Given’. However, it is clear with respect to clefts that the Given-New strategy of Clark and Haviland actually makes no predictions about a significant class of cleft constructions, and therefore cannot account for them. These are the cases in which Given information is contained within the part of the cleft that is supposed to contain the ‘New’ or ‘Focal’ information—such as the Given information conveyed by the repeated reference to *Joe Wright* in the following example:

- (11) A: Joe Wright you mean.  
B: Yes yes.  
C: I thought it was old Joe Wright who’d walked in at FIRST.

Hearers of C's cleft might adopt one of two strategies for processing:

- As Clark and Haviland predict, they might attempt to integrate the presupposed information first, as 'Given' information, although integration would be slowed down due to the fact that the information has no antecedent.
- Clark and Haviland's general theory of Given-New processing, however, would also predict that hearers integrate genuinely 'Given' information first—in this case, they might attempt to integrate the referent of the phrase *old Joe Wright* into memory, as the information with respect to which the rest of the cleft would be stored. In effect, clefts with the information structure of that appearing in (11) would be treated in the same way as non-cleft, Given-New ordered sentences

If the first of the two strategies were adopted, at what stage would hearers decide to adopt the 'restructuring' option for processing, deciding that the information presented as 'Given'—i.e. the presupposed information—was *not* the best information in the sentence for the formation of a coherent relationship? In the example above, it certainly seems as if the information conveyed by the head of the cleft—which could even be replaced by a pronoun—is suitable for the formation of such a relationship. Note, too, that in the data on reverse *wh*-clefts mentioned at the beginning of this note, *all* of the corpus examined (160 examples) had anaphoric (and therefore, arguably, Given) head elements, and New information in the presupposition. The prevalence of such examples gives rise to the following questions:

- When such examples are this common, would not hearers become tired of applying the Given-New strategy to clefts on the basis of their syntactic structure, failing, and having to resort to Restructuring after all—i.e. to treating cleft constructions with information structures like that above as equivalent to non-cleft structures? In fact, would they not on the basis of experience expect reverse *wh*-clefts in particular *not* to indicate Given information in the presupposition, and treat them differently from, say *wh*-clefts, the content of whose presuppositions is generally much more closely connected to the foregoing discourse (cf. Delin [1989:197ff])?
- If, as Carpenter and Just [1977] have shown, cleft constructions with New information in their presuppositions take longer to process than those without, why is the majority of the data I have examined composed of such examples? Does the increased processing time noticed by Carpenter and Just in fact take place in the processing of all cleft types, or simply those in which a different information structure was expected from that which actually appeared? Carpenter and Just did not examine reverse *wh*-clefts, which typically have a New presupposition and a Given head element—do hearers in fact expect this to be the case, or do they still adopt the faulty Given-New strategy?
- Is the presupposition, whether or not it contains New information, treated as some kind of Given information *as well as* the Given information conveyed by the asserted part of the cleft? In other words, is it possible in some sense to consider the information borne by the cleft as being integrated into memory with respect to *both* parts—and is this indeed part of the special coherence-inducing function of cleft constructions with Given information in the assertion?

These issues seem to be important ones to resolve if the issue of what clefts are used for in discourse is to be understood from a psychological perspective. It is my view that, up to now, the assumption that clefts are a homogeneous group with respect to information structure has led to the view that presenting New information in presupposed form constitutes some deviation from the norm, resulting in a bias in the formation of experimental hypotheses. While the results of the experiments mentioned above are not necessarily in question, it would be interesting to re-open the case on the processing of cleft constructions with a view to evaluating alternative hypotheses.

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