

Blue Book Note No. 5

May 25th 1990

Focus in Cleft Constructions¹

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In this note, I review the major accounts of cleft constructions in discourse that have appealed to some notion of clefts as ‘focusing’ constructions. I show that there are problems with these accounts, particularly in the traditional view that the element denoted by the head of the cleft is the cleft’s focus. Drawing on Taglicht’s [1984] view that there are in fact two focus systems relevant to clefts, one accentual and one syntactic, I develop a view of syntactic focus in clefts that postulates the focal element to be not the denotation of the head element, but the meta-relationship or NEXUS between the cleft head and the predicate expressed by the cleft complement. Some questions are then raised about the interaction between the two systems, and whether the notion of nexus focus is part of a more general class of syntactic focusing devices.

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1 Introduction

It has often been suggested that cleft constructions such as those below (an IT-CLEFT in (1a), a WH-CLEFT in (1b), and a REVERSE WH-CLEFT in (1c), are FOCUSING CONSTRUCTIONS:

- (1) a It was Heath who spoke loudly.
b What I saw was a wrinkle.
c That was what annoyed Berengaria.

Although there is a plethora of notions of focus suggested in the literature, focusing accounts of clefts usually have in common the view that, in using a cleft, the speaker or writer intends to indicate that she considers or intends some part of the content of the cleft to be interpreted as FOCAL. The *effect* of that focal status in terms of what is expected to happen in the discourse, where it is predicted at all, is not generally agreed upon. In most cases (although there are exceptions) the discussion of focus is a response to a widely-held conviction that units of information in a model of the discourse ought to be differentiated in status, but beyond this there are few testable suggestions as to what these differences mean.

In this note, I will first of all discuss some representative accounts of clefts as focusing constructions, pointing out the problems with the notions suggested to date. I will go on to argue that there are two notions of focus relevant to clefts, as has been suggested by Taglicht [1984], and propose some modifications to Taglicht's characterisation of cleft focus. Finally, I will mention briefly some of the implications that the view of focus developed here has for the semantic representation of clefts, and suggest some issues for further research.

2 Previous Focusing Explanations of Cleft Constructions

In general, the accounts of clefts as focusing constructions fall into two main classes, claiming that focal status is indicated for some part of the content of the sentence by either of the following:

- Syntax alone
- Sentence accent in combination with syntax

Accounts falling into the former category include those of Sidner [1979] and Reichman [1981]; those in the latter include Chafe [1976], Creider [1979], Geluykens [1984], and Quirk *et al* [1985].

It is not my intention here to discuss the relative merits of different notions of focus *per se*; we will be concerned only with the applicability and usefulness of particular notions for describing the functions of clefts in discourse, including the accuracy of any predictions they

make with respect to the surrounding discourse. Throughout the discussion, since there are so many different notions of focus being dealt with, it should be assumed that where the term ‘focus’ is used, the notion intended is that of the author being discussed at the time.

2.1 Indicating Focus by Syntax

The main proponents of the view that some aspects of the syntax of cleft constructions are focus-marking are to be found within the literature on computational linguistics. The most influential theories in this field to date that address clefts in any detail are Reichman’s [1981, 1985] model for the generation and interpretation of conversational discourse, and Sidner’s [1979] theory of focusing for anaphora resolution. These two theories, in addition, are unique among the research involving focus being discussed in this paper in that, while the other accounts provide definitions of focus, no predictions are made with respect to what focus as defined in each case actually *does* in discourse—that is, what effects, linguistic or otherwise, are meant to result from an element being in focus. Sidner’s and Reichman’s theories, on the other hand, both contain notions of focus that were evolved as a means of capturing the behaviour of discourse phenomena, and can be tested by assessment of how well they account for that behaviour.

Although the two theories differ in how focus is defined and exploited, in both cases focus is a status that is predicated of information in a model of the ongoing discourse, and is related directly to the use of anaphoric referring expressions, the hypothesis being that focal elements are the most likely antecedents for subsequent anaphoric expressions.

In Reichman’s [1981, 1985] model, a discourse is represented by a collection of `CONTEXT SPACES`, each of which corresponds to a particular segment of the discourse; that context space which corresponds to the current part of the discourse is referred to as the `ACTIVE` space. Each context space contains, amongst other things, the entities mentioned in the part of the discourse corresponding to that context space; and each entity has a corresponding `FOCUS LEVEL` which indicates its salience within that context space. For the speaker, the focus level assigned to an entity determines the form of referring phrases to be generated; for the hearer, the focus level assists in the interpretation of anaphoric expressions.

Focus levels are established by means of a set of 14 `FOCUS RULES`. These predict the changes that will take place in the focus registers of the currently active space either after generating or interpreting an utterance with particular characteristics. For example, a semantic rule exists that stipulates the assignation of a `HIGH` focus level to the agent of an action. The syntactic rules concern the use of particular kinds of constituent or sentence construction, and include the following rule for clefts [Reichman 1985:75]:

F3 The subject of a pseudo-cleft, cleft, or topicalised clause is assigned a high focus assignment.

In Reichman’s model, only high focus elements in the currently active context space may be referenced by a pronoun [Reichman 1981:119]. Since Reichman’s rule makes a prediction

Cleft Type	Antecedent		Total
	Head	Non-head	
<i>it</i> -cleft	10 (43%)	13 (57%)	23
<i>wh</i> -cleft	32 (78%)	9 (22%)	41
reverse <i>wh</i> -cleft	3 (11%)	25 (89%)	28
Total	45 (49%)	47 (51%)	92

Figure 1: Clefts as providers of antecedents

about the status of cleft *subjects*, her model predicts that when an *it*-cleft or reverse *wh*-cleft occurs, its head is a likely source of antecedents for subsequently-occurring pronominal anaphora; when a *wh*-cleft occurs, the likely source is the *wh*-clause.

A similar assumption is made by Sidner [1979], and implemented in her program for the resolution of anaphora. Sidner claims that clefts are in a class of syntactic constructions ‘which make the recognition of focus easy, since these sentence types are claimed to have the purpose of singling out one element from others’ [1979:60]. Sidner’s notion of focus is similar to Reichman’s, in that it is a dynamically-updated assignment of salience to entities that responds to linguistic aspects of the input. The heads of clefts of all three syntactic types are claimed to have the function of placing the element referred to by the cleft head at the top of a list of potential foci, with the result that this element—the EXPECTED FOCUS in Sidner’s terms—is the first candidate to consider when attempting to resolve a subsequent anaphor.

Both the theories outlined above provide formally defined notions of focus with an explicit function in a computational theory. To estimate the value of these notions, we can examine a corpus of data to investigate how far the rules hypothesised for clefts can enhance the efficiency of the anaphora resolution algorithm in question. Sidner’s claim can be tested in the form of the hypothesis that the heads of cleft constructions provide antecedents for subsequent pronominal anaphors at a rate that is better than other parts of the cleft construction; Reichman’s claim can be tested on the same hypothesis for *it*-clefts and reverse *wh*-clefts, and on the hypothesis that *wh*-cleft *wh*-clauses provide antecedents more frequently than *wh*-cleft heads.

To test these hypotheses, I took a sample of 150 sentences, 50 each of *it*-clefts, *wh*-clefts, and reverse *wh*-clefts, from my corpus of naturally-occurring spoken data. 92 of these had one or more subsequent pronominal anaphors within three sentences of the cleft itself (23 in the case of *it*-clefts, 41 for *wh*-clefts, and 20 for reverse *wh*-clefts). The antecedents of these anaphors were categorised as being either HEAD—that is, occurring in the head of the cleft—or NON-HEAD—occurring either in the cleft complement, or being composed of the entire content of the sentence, as sometimes occurs with the anaphoric elements *this* and *that*. The results of the analysis appear in figure 1.

The distribution of pronoun resolutions shown in figure 1 is significant to .001 by the Chi-Square test. Taking Sidner’s hypothesis first, the table shows that for two out of three of the cleft types—*it*-clefts and reverse *wh*-clefts—there is unlikely to be any advantage in taking

the cleft head as a favoured antecedent for subsequently-occurring pronouns; in the case of the reverse *wh*-cleft, it is likely to be a distinct disadvantage. In Reichman's case, again, *it*-cleft heads offer a roughly equal chance of providing an antecedent and not doing so; and reverse *wh*-cleft heads provide a much worse likelihood. *Wh*-cleft *wh*-clauses also provide a much smaller number of antecedents than *wh*-cleft heads. Reichman's theory therefore fares slightly worse than Sidner's, although neither fares particularly well.

Finally, Taglicht [1984] invokes two notions of focus for the analysis of clefts and other syntactic constructions. He uses the term 'focus' as [1984:1] 'a general term for the assignment of prominence by phonological or syntactic means', and distinguishes between the focus MARKER, the device used to assign this prominence, the FOCUS, being the part to which prominence is assigned, and the RESIDUE, the part of the utterance not assigned prominence by the marker in question. One of the systems Taglicht takes to be focus-marking is sentence accent, the other is the syntax of the sentence or utterance in question. Taglicht states [1984:55]

A cleft construction is a syntactic device that singles out part of the propositional content as containing the communicative focus of a sentence and designates the residue as presupposed.

The focused part of propositional content is for Taglicht realised by part or all of the cleft head constituent: For example, in (2), either of the semantic constituents *red* or *red wine* may be the focused one:

(2) It was red wine I asked for.

How much of the semantic content realised by the head constituent is focused in a sentence such as (2) is, for Taglicht [1984:56], determined by 'pragmatic narrowing of the focus as delimited by the syntax to the part that is required by context'. This contextual delimiting may therefore be signalled by sentence accent (for example, by an accent on *red* in (2)), the second of the two focus systems that Taglicht invokes. It is clear, then, that the notion of syntactic focus Taglicht argues for—in which the denotation of the head constituent is the focused element—is not a simple function of the cleft's syntactic structure. We will return to this point in section 2, in which modifications of Taglicht's 'two-strand' approach to focus in clefts are suggested.

2.2 Indicating Focus by Accent and Syntax Combined

Other theories attempt to explain clefts by means of some notion of focus in terms of the marking the position of focal material by a combination of syntax and accent. This view therefore embodies the assumption that sentence accent will fall in a syntactically-predictable place. Proponents of this view include Chafe [1976], Creider [1979], and Quirk *et al.* [1985].

Chafe [1976:25] and Creider [1979] share the view that a focus-marking nuclear accent falls predictably on the head of each cleft construction. Chafe terms this element the FOCUS

OF CONTRAST, which a speaker is presenting as an ASSERTED ALTERNATIVE to some other element. Although Creider provides other tests for focus that are not based on prosody², he states that in *it*-clefts the ‘stressed constituent’ is the focus, and goes on to equate ‘stressed constituent’ with the cleft head in all but what he considers to be a limited number of exceptional ‘metacontexts’, where some form of correction is taking place [1975:15]. Similarly, Chafe [1976] also expects to find that the head of a cleft construction will correspond to a prosodic nucleus. The examples he gives are as follows:

(3) It was RONald who made the hamburgers.

(4) The one who made the hamburgers was RONald.

Quirk *et al.* [1985:1353ff] subscribe to the Hallidayan notion of focus, in which focus indicates ‘where the New information lies’ [Quirk *et al.* 1985:1363] in an information unit, and is signalled by the intonation nucleus. In Halliday’s [1985:275] terms, the element of the utterance which has this TONIC PROMINENCE is said to be carrying INFORMATION FOCUS. In the case of cleft constructions, Quirk *et al.* argue that a cleft consists of a single information unit, but that the function of the cleft is to ‘divide’ the one focus into two, resulting in a single unit with two foci. Quirk *et al.* therefore account for *wh*-clefts and *it*-clefts as devices for achieving DIVIDED FOCUS [1985:1372]. This division is claimed to fall at the syntactic boundary between the head and the complement of the clause, and Quirk *et al.* predict that a nuclear accent will fall at the end of each constituent, as in the cases in (5):

(5) a It was JOHN that had him WORRIED.

b What had him WORRIED was JOHN.

To recapitulate, then, Chafe and Creider’s claims suggest that a single nucleus will appear on the cleft head; Quirk *et al.*’s suggestion is that there will be two nuclei, one on the head constituent, and one in the complement. An analysis of a corpus of naturally-occurring data, however, reveals that predicting that accents will appear in a particular position in the syntactic structure of clefts is not a reliable strategy. This is because, in a large proportion of the data, ‘focus-indicating’ nuclei (and subsidiary accents) appear in a variety of positions, including, but by no means limited to, the positions that the research described above assumes to be ‘marked’ by the syntactic structure of the cleft. A sample of 50 of each type of cleft taken from the Survey of English Usage corpus (Svartvik and Quirk [1980]), revealed five distinctive accentual patterns, as follows:

Head-Nuclear Clefts in which the cleft head has a nuclear accent, and no accent appears in the cleft complement;

Complement-Nuclear Clefts in which the cleft complement or *wh*-clause has a nuclear accent, and no accent appears in the cleft head;

Both-Nuclear Clefts in which a nucleus appears in both the head and the complement of the sentence;

²For a summary and criticism of Creider’s criteria for distinguishing ‘focus’ from ‘topic’, see Delin [1989:18ff].

Type	<i>it</i> -cleft	<i>wh</i> -cleft	Reverse <i>wh</i> -cleft
Head-nuclear	5	4	0
Complement-nuclear	13	0	43
Both-nuclear	25	40	4
Head-nuclear/weak complement	4	6	0
Complement-nuclear/weak head	3	0	3

Figure 2: Breakdown of the sample into the five accentual patterns

Head-Nuclear/Weak Complement Clefts in which a nucleus appears in the cleft head, and a subsidiary accent occurs in the cleft complement; and

Complement-Nuclear/Weak Head Clefts in which a nucleus appears in the cleft complement, and a subsidiary accent occurs in the cleft head.

How the data broke down into the five classes is shown in figure 2.

The data shows that it cannot be claimed that clefts are ‘focusing’ in any way that relies on the correlation of syntactic structure with the appearance of sentence accent, which, as in other sentence types, appears to roam fairly freely over the structure of the sentence depending on contextual factors.

Taglicht’s [1984] approach to accentual focus in clefts is not connected to the cleft’s syntax in the way that has proved so problematic in the accounts discussed so far. As has also been suggested by Chomsky [1971], the accent patterns appearing in clefts are fairly free (although whether they are completely unconstrained is a subject for further research). It has yet to be demonstrated that there are accent patterns unique to cleft constructions: if such patterns existed, they would be a powerful determinant of syntactic choice³.

2.3 A Focusing Account for Clefts?

In this section, we have seen that there are problems with many of the notions of focus that have been suggested as explanations for clefts. We saw first of all that the hypothesis that clefts indicate the presence of a focus for pronoun resolution is not a reliable one. Second, it was clear that simple expectations regarding a correlation between the cleft’s syntax and the position of focus-marking accents failed to be supported by the data, and it remains to be shown that there are any accent patterns unique to clefts.

The most likely scenario, therefore, seems to be that clefts undergo focus-marking by accentual means in the ordinary way—that is, in ways that are common to other sentence types.

³Geluykens [1984] examines a variety of factors that might be important in determining a focus-marking function for clefts, concluding that the most powerful of these is sentence accent. However, he fails to show that the position of focus-marking accents in clefts is reliably different from those in any other syntactic construction.

However, Taglicht's suggestion that more than this one notion of focus is relevant to clefts is a tempting hypothesis, since we have not yet been able to discount the notion that the cleft is focus-marking in some syntactic way in addition to this accentual marking. In the next section, we will look at the evidence for a syntactic view of focus-marking that supplements the accentual focus system, and suggest some modifications to Taglicht's claims regarding syntactic focus.

3 Syntactic Focus and Cleft Constructions

3.1 Problems with Existing Views of Syntactic Focus

We saw above that Sidner and Reichman's notion focus as related to syntactic structure did not seem to be useful for the function that they propose, namely the resolution of anaphora. Most of interest here is the result for Sidner's assumption that the cleft head is the site of potential antecedents, since the view that it is the cleft head that is somehow special is a prevalent one. From the discussion of Sidner's work we know that the cleft head is no more likely to provide antecedents for anaphors than the rest of the sentence, which in turn tells us something (albeit negatively) about what kind of focusing the cleft head can perform.

Although a large number of researchers assume some special function for the cleft head in terms of focusing, Sidner and Reichman are perhaps unique in that the notion of focus they invoke is simply a means to an end—that of resolving anaphora. In the rest of the literature, little or nothing is said about the function of the notion of focus appealed to in the explanation of clefts, or what the status of particular notions is in terms of formal or psychological models.

More importantly, though, research to date that addresses syntactic focus in clefts embodies a rather simple assumption about the correlation between the linguistic surface structure and the nature of the element focused. For example, Reichman and Sidner explicitly deal only with noun phrases, and they assume that the syntactic constituent upon which focus is indicated denotes focal *entities* in some model of the discourse. Taglicht [1984:9] paints a slightly more detailed picture, since he takes into account cases in which the domain of a syntactic focus marker may be 'something less than a clause and need not correspond to any syntactic constituent'. He also takes into account cases where the syntactic focus can be 'narrowed' by contextual factors.

While Taglicht's view is undoubtedly less simplistic than the other notions of syntactic focus we have examined here, some of the detail he imports into the account seems to undermine the notion of syntactic focus quite seriously. In fact, the property he suggests for his syntactic focus in clefts—that of focusing a domain smaller than the denotation of the head constituent—is a property that is quite well understood to fall within the domain of the *accentual* system (cf., for example Gussenhoven [1983]). When pragmatic 'narrowing' of the focus of the head constituent takes place, for example when the head constituent of the cleft is *red wine* but only the *red* is focused, we can expect this to be clear from the context, or from a change in the position of sentence accent. Taglicht's account suggests that this is a case of

the syntactic focus system defining a broad domain, specification of the final focused content being arrived at by means of the accentual/contextual focus system. However, it is plausible that this two-step process can in fact be wholly described in terms of the accentual/contextual system: it does not seem that in these ‘narrowed’ cases the notion of syntactic focus on the cleft head does anything but complicate the accentual account of focus, the operation of which is going on satisfactorily here as elsewhere in the sentence.

We can also question the view that the cleft head is ‘focal’ in any sense in which the term is understood. We have seen above that head constituents do not provide antecedents for subsequent pronominal anaphors more often than constituents appearing elsewhere in the sentence. Furthermore, it is shown in Delin [1989:216ff] that the head constituent can be of any status offered by a taxonomy of information types such as Halliday’s Given-New dichotomy or Prince’s [1986] taxonomy. Finally, it has yet to be shown in the psychology literature on the processing of cleft constructions that the cleft head has any privileged status: more attention has been directed towards the status of the presupposed material in the cleft complement (cf. Hornby [1974], Carpenter and Just [1977]).

While I would accept Taglicht’s suggestion that two notions of focus are required to deal with clefts, one of which being the ordinary accentual/contextual system, I do not take on board his suggestion that part or all of the denotation of the cleft *head* is the syntactically-focused material. I would argue that this material is the domain of the accentual system, and that we are dealing with something slightly more complex than the first-order denotation of individual constituents of sentences when we talk about the syntactic focus of clefts.

3.2 An Alternative Formulation of Syntactic Focus for Clefts

We saw above that there is little evidence to support the assertion that the head constituent of cleft constructions denotes some focal element. In this section, I would like to argue for a modified view of syntactic focus for cleft constructions.

In Delin [1989] I argue that the information structure of cleft constructions is in fact more heterogeneous than is generally supposed: the head constituent does not reliably correlate with some status of information in the discourse model, nor is there evidence to suggest that the speaker uses a cleft to elevate the element denoted by the head constituent to some focal status. In other words, when the information status of the element denoted by each constituent of clefts is examined, there appears to be no *invariant* relationship between syntactic structure and information status. However, when a more detailed semantic analysis of cleft constructions is attempted, invariant properties do reveal themselves. In order to show what these properties are, and how they might constitute the clefts’ ‘focus’, it is necessary to provide such a semantic analysis, detailing the related functions of presupposition and assertion in clefts.

Presupposition and Assertion

It is generally accepted that the cleft complement or *wh*-clause of any cleft construction conveys or 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 (6a) and (6b) will convey the proposition realised as (6c):

- (6) a It was the bell that rang.
- b It wasn't the bell that rang.
- c Something rang.

We can characterise the content of the part of the cleft that conveys the presupposition, the *wh*-clause or cleft complement, quite simply. For example, for the three cleft constructions in (7), we would expect a presupposition that we can gloss as (8), and represent more formally as (9). The presupposition contains an existentially-quantified VARIABLE, which is indicated in the example by *something*:

- (7) a It was the bell that rang.
- b What rang was the bell.
- c The bell was what rang.

(8) Something rang.

(9) $\exists x \text{ rang}(x)$

The content of the cleft is not exhausted by the statement of its presupposition. Clefts also contain an ASSERTION, to the effect that the element or elements named by the cleft head serve to INSTANTIATE the variable contained in the presupposition. We can therefore represent the asserted content of the clefts in (7) as (10), where x stands for the variable in the presupposition:

(10) $\text{be}(s, x, y) \wedge \text{bell}(y)$

A important function of clefts is to indicate the position of presupposed and asserted material syntactically, and, in addition, to indicate that an instantiation of the variable in the presupposition is taking place.

The Notion of Nexus Focus

The notion of syntactic focus that I would claim is central to clefts is related to the instantiation of the existentially-quantified variable in the presupposition. Although there are no other

constraints that operate across all the cleft types concerning whether a particular constituent bears New or Given information, or it seems to be an appropriateness condition on the use of all types of cleft that the instantiation of the variable in the presupposition must be NOVEL to the hearer. This can be demonstrated by examples such as the following:

(11) # John won and it was John who won.

Compare this unacceptable example with the well-formed example in (12):

(12) I know someone won the race, and I saw John a moment ago, but I didn't know it was John who won.

In (12), it is clear that all the PARTICIPANTS in the eventuality described by the sentence are already known to the hearer—that is, the fact that John exists, and the presupposed information borne by the cleft complement carry no New value whatsoever. What is novel, however, is the connection between the two—the content of the assertion, namely the instantiation of the variable contained in the presupposition. The comparison of the two shows that what is wrong with (11) is that this variable instantiation, to the effect that John is the winner, cannot be novel to the hearer, with the result that there is no novel contribution made by the cleft. This effect, unlike Taglicht's notion of cleft-head focus, is observable in *all* clefts, suggesting that it is an inalienable requirement for the use of the cleft structure. In addition, it is invariant with respect to context, again unlike Taglicht's notion, where context can 'narrow' the syntactic focus. This suggests that it is a strictly syntax-based notion. Its domain can therefore be clearly differentiated from the domain of accentual focus, although the two may coincide.

I would claim that the focusing capacity of clefts lies not within the discourse status of any of the entities directly denoted by the asserted content of the cleft, but in the NOVEL CONNECTION between the head element and the predicate in the cleft complement. We can term this NEXUS focus.

4 Implications

The notion of focus discussed above immediately places requirements on the nature of the semantic representation for clefts: it has to be possible to represent semantic content beyond the denotation of the lexical items in the sentence under analysis, in order that the SECOND-ORDER nature of cleft focus can be represented. This is achieved in the representation given above by the use of arguments to represent eventualities: in the case of the cleft, the STATE induced by the copula *be* has to be explicit in the representation, since it is that state that has to be novel to the hearer for the cleft to be acceptable.

Although the notion of nexus focus seems to be more firmly based on the data than the other notions of focus discussed so far, we need to look more closely at its effects in the discourse: when do people use clefts? What are the discourse effects resulting, in terms of thematic

development and pronominalisation patterns, for example? Most importantly, what are the psychological and processing effects? In addition, we need to think about the functions of the two systems of focus that I am claiming here operate for clefts: if the accentual system can be fairly clearly related to considerations such as Given and New information (or some taxonomy covering the same ground), what is the function of nexus focus? Does it extend only to nexus itself, or is it an instance of a more general class of syntactic focusing devices, with some more general function?

Finally, are the two systems entirely independent? An example that springs to mind is one that appears to use accent to highlight not New information as it is traditionally understood, but which accents elements apparently to highlight the fact that they are now appearing in a new connection in the discourse, rather than because they are New in relation to the context. The example runs as follows:

- (13) In the old days, it used to be the young who learned handy tips from
the older generation. Now it is MOTHER who picks up recipes from her
DAUGHTER.

In (13), it seems clear that *mother* is inferrably related to *the older generation* and *daughter* is related to *the young*. The accents in the cleft therefore do not apparently relate to the appearance of New information, but the transposed connection between the arguments *mother* and *daughter* and the predicate (which could be expressed in terms of a change of case roles, for example). On the basis of data such as this, it seems that the accentual system is related to the notion of nexus focus, but the nature of this relationship, and when it can be expected to affect the accentual pattern of the utterance, is not so clear.

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