

FOCUS OF THE SENTENCE AND FOCUS OF AN OPERATOR

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Abstract: If the topic-focus articulation of the sentence is described as one of the aspects of its underlying structure, then the prototypical position of a focus sensitive operator, such as *even*, *only*, *also*, *negation*, etc., is at the boundary between topic and focus. The focus of the operator can then be understood as identical to the focus of the sentence. Among the peripheral alternatives, there are those with one or more operators within the topic and those in which the operator itself constitutes the whole focus of the sentence.

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The topic (T) and the focus (F) of a sentence may be understood as two parts of the (underlying) syntactic representation, i.e. as those linguistically patterned units that in the prototypical case correspond to the presystemic notions of 'given' and 'new' information. In the layer of cognition various aspects and degrees of 'givenness' may be distinguished, but the linguistic patterning has to be abstracted from empirically given language data.

Within the Prague Functional Generative Description (see Sgall et al. 1986), we distinguish between 'contextually bound' (CB) and 'non-bound' (NB) lexical occurrences (where 'context' includes 'consituation'), having in mind that in a contrastive position a 'given', i.e. highly salient piece of information can be linguistically structured as NB, belonging to F, as e.g. in *I have brought this for YOU*. In the prototypical case, CB items belong to T and NB ones to F, but with embedded items (i.e. with those not dependent directly on the main verb) this is not always so; e.g. in *My best friend has lost his pen* (on the preferred reading, with normal intonation), *best* is NB, but belongs to T (since it depends on the CB subject *friend*), and *his* is CB, but belongs to F (depending on the NB object *noun*).

A semantico-pragmatic interpretation of sentences can lead to tripartite structures (of B.H. Partee and others) in which the Operator corresponds to the focalizer, the Restrictor

corresponds to the background of the focalizer and the Nuclear Scope to its focus. An analysis of the present approach in this sense may be found in Hajičová et al. (*in prep.*).

1. FOCUS SENSITIVE OPERATORS IN PRIMARY POSITIONS

The primary position of a focus sensitive operator ('focalizer', such as *even*, *only*, *also*, negation, etc., cf. Koktová 1986; Sgall 1994; Hajičová et al. *in prep.*) is at the boundary between T and F (in the underlying word order, cf. J. Firbas' scale of communicative dynamism). The focus of the focalizer can then be found to be identical to F, as e.g. in (1):

(1) I have only brought some chocolate for your children.

Several instances of ambiguity are present in (1):

- (a) in written shape, the position of the intonation center (IC), although not indicated, is relevant; *for your children* is in T if unstressed (following after IC), in F if it carries the IC;
- (b) the position of *only* in the underlying word order is ambiguous in that the focalizer is more dynamic than the verb on some readings, being less dynamic than it on the others;
- (c) the verb belongs to F on some of the readings and to T on the others;
- (d) the *for*-group expresses either an adverbial (dependent on the verb) or a nominal adjunct (dependent on *chocolate*).

In any case, the focus of the focalizer is identical to F if the focalizer belongs to the focus: the sentence (with normal intonation) then asserts either that what the speaker has done is nothing else than that he brought some chocolate for the addressee's children (if the verb is NB), or that he brought nothing else (for no other purpose) than some chocolate for the children. If we understand the 'background' of the focalizer as that part of the sentence that is relevant for the specification of a set of alternatives from which the choice is being made, and if the part referring to the chosen items is called the focus of the focalizer (ff), we can see that ff is identical to F in both cases. This is so also for the reading with which only the Objective (if it carries the IC) constitutes the focus (together with the focalizer): it is then asserted that the speaker has not brought anything else for the children than some chocolate. In the sequel, the scope of a focalizer will be understood as its focus together with its background; with (1), the whole sentence is the scope of *only*.

A secondary position of the intonation center (indicated by capitals here and in the sequel) may be characterized by the following example:

(1) John said that only MARY invited Jane.

In this case, on the preferred reading, having invited Jane is attributed only to Mary, i.e. the scope of *only* is the embedded clause. Both the main verb and its subject are CB (and thus in T) on this reading, and so is the verb and the object of the embedded clause; F then consists

just of *Mary* and thus equals ff. A reading with the verb *invited* also belonging to the focus seems to be excluded in (2); however, with another lexical setting we see that such a situation is possible:

(2) (Not much has happened to Mary.) Only a BALL hit her.

In (3) the verb is ambiguous, belonging to F on one reading, and to T on another (the latter occurring e.g. after *Did something HIT Mary?*). Not much changes if (3) is embedded:

(3) John said that only a BALL hit her.

The boundaries of the VP clearly are not decisive; in (3) and (4) the subject behaves similarly as the object (if carrying IC) in (1) or in (2'):

(2') John said that Mary only invited JANE.

One of the aspects of the ambiguity mentioned above, with ex. (1), point (b), can be illustrated by the following sentence:

(5) John only sits by the TV.

Sentence (5) is ambiguous, since (in English) the position of the operator does not indicate F univocally; two readings must be distinguished. In our (highly simplified) notation of the readings, i.e. of dependency based underlying representations, the numbers indicate the positions of the sentence parts in the scale of communicative dynamism and the sign '!' marks the least dynamic element of F:

(5') (a) (John₁) (only₂!) sits₃ (by the TV₄)

(b) (John₁) (only₃!) sits₂ (by the TV₄)

In a constituency based analysis the focalizer in (4) or (5')(b) often is understood as constituting an NP together with the noun that is its ff. With a dependency based grammar, the distinction between ad-VP (or ad-S) and ad-NP operators can be handled as two different positions in the structure of the sentence and in the scale of CD: In *Jim admired only the red CAR* the focalizer depends on the verb, and in *Jim admired only the RED car* it depends on the noun *car* (cf. Section 2.2 below). We can then work with the hypothesis that the scope of a focalizer equals the maximal projection (in the dependency tree) of the head of the focalizer, i.e. the subtree consisting of its head and of all nodes subordinated to it (i.e. depending on it immediately or through the mediation of intervening nodes). This view meets a difficulty with examples such as (6):

(6) (a) We are required to study only syntax.

(b) We are required to only study syntax.

The sentence (6)(a) has been characterized as ambiguous, see Rooth's (1985) (5)(c) and (6)(c) on p. 90 (quoting Taglicht). Rooth's explanation is based on the assumption that *only* is a part of the NP headed by *syntax* and that this NP has the narrow scope on one reading (with which

the sentence can be paraphrased by "We are required not to study any other subject than syntax") and the wide scope on the other reading, with which the main verb belongs to the scope and background of the focalizer: "We are not required to study any other subject than syntax". It appears that such examples can be analyzed, in a dependency based framework, so that the focalizer depends on the verb *study* in such sentences as (6)(a), (6)(b), on their preferred readings, and its scope thus again is the maximal projection (in the dependency tree) of this verb. However, (6)(a) also has a secondary reading, in which the focalizer depends on the higher verb (or, perhaps more precisely, on a phraseological cluster of the two verbs) and thus has the wide scope, covering the whole sentence, similarly as in (6)(c).

(6) (c) We are only required to study syntax.

It may be assumed that a focalizer can depend on such a cluster of verbs only if these verbs are CB, in the topic of the given clause, perhaps under some not yet identified syntactic or lexical conditions, just with certain groups of verbs.

2. FOCALIZERS IN SECONDARY POSITIONS

2.1 Focalizers in the topic

The presence of a focalizer in the topic, with the local topic-focus articulation brought in from preceding co-text (its literal repetition not being necessary), can be illustrated by (7):

(7) (Who helped even your NEIGHBOR in his adventures?) JOHN helped even Jim in the curious situation.

The contextual boundness of everything but the subject in (7) restricts the focus of *even* to *Jim*, which can be understood as a contrastive topic (or 'new' topic, in the sense that it only occurred in the focus in the preceding co-text). This phenomenon, known from the analysis of negation by E. Hajičová and from that of other focalizers by Koktová (1986; 1987), requires to assume that ff does not stretch over the boundary between T and F in such a case. A corresponding account appears also to be adequate for sentences with two focalizers in T:

(8) A: All of us have seen that Jim only liked novels.) B: If even Paul realized that Jim only liked novels, then he would give him ANOTHER book.

(8') (if (even1) (Paul2) realized7 ((Jim3) (only5) liked4 (novels6))) (then8!) (he9) would-give11 (him10) ((another13) book12)

On its primary reading (with *only* being more dynamic than *liked*), this sentence can be paraphrased as follows: "If the fact that Jim liked nothing else (to read) than novels was realized, among other, more attentive witnesses, by Paul, then Paul would give Jim another book." This means that ff of *only* is *novels*, and the background of this focalizer is *Jim liked*; *even* has *Paul* as its ff and *realized* with the *that*-clause as its background. This is what is predicted by the suggested account. Also a sentence displaying focalizers both in F and in T

can be analyzed similarly; cf. Jacobs' (1991:5) example, in which *PETER* may be understood to bear the intonation center, *NOVEL* carrying a (perhaps weaker and not falling) contrastive phrasal stress within T:

(9) Even *PETER* knows only a *NOVEL* by Goethe.

Assuming that (9) may occur in such a context position as in those where it is preceded by (9+) or (9++), we can analyze (9) as having *even Peter* as its F, whereas the rest is CB (reading Goethe's novels has been activated by the negative mention of other writings of his or of classical writers in general). The phrasal accent on *novel* identifies this noun as the focus of *only*, excluding the unaccented group *by Goethe* as CB from this focus. Thus, the representation of (9) is (9'). The author's name belongs just to the scope, rather than to the focus of *only*; also the verb and its subject belong to the scope (the choice is determined also by what Peter knows, and not only by Goethe's name). This extension of the scope of *only* is what our hypothesis predicts, if this focalizer is analyzed as depending on the verb.

(9+) Nobody reads Goethe's poetry here.

(9++) Nowadays manysided classical writers are known much more from their prose than from their poetry or theoretical writings.

(9') ((even⁵!) Peter⁶) knows⁴ ((only²) a novel³ (by Goethe¹))

2.2 A focalizer within a noun group

In dependency syntax, a focalizer may be seen as depending on a noun if its focus is just a complementation of the head noun, like in the primary reading of (10), in which the scope of *only* is *organic chemistry*. However, such sentences as (11) offer a parallel to the specific situation illustrated by Taglicht and Rooth; on one of its readings, in (11) the verb cluster perhaps belongs to the scope of *only*. This would require a specific handling in the description.

(10) I am studying only ORGANIC chemistry.

(11) Father made me study only ORGANIC chemistry.

2.3 A focalizer carrying the intonation center

If a focalizer is the bearer of the intonation center, as e.g. in (12) - (15), then it constitutes the whole F.

(12) (No,) Terry will NOT run to Brooklyn.

(13) He told me this CONFIDENTIALLY.

(14) She did it TOO.

(15) They ALSO were there.

In these sentences (at least on their primary readings) the focalizers can be understood as constituting the whole foci of the sentences, the rest, as "given information", belonging to their topics. Here, differing from Koktová's (1986:33-35) understanding of "backward scopes", we assume that the ff is constituted by a (contrastive) part of T, while the rest of the sentence is its background (cf. the difference between (14) and (14)'), which is connected with the fact that *this* differs from *it* in that it may carry a contrastive phrasal stress. This requires another amendment of our hypothesis.

(14') She did this TOO.

2.4 Focalizers clustering within F

Let us present one example of a sentence containing two focalizers in its focus:

(16) He will also run even to BROOKLYN.

Here on the preferred reading (on which the verb belongs to the topic) F equals the ff of *also* and the latter includes the ff of *even*. In this prototypical position (more dynamic than any element of T and less dynamic than any element of F), focalizers are rather freely combined with each other (see Koktová 1986), although not all combinations are frequent or even possible. As Koktová (1987:208) points out, along with this kind of clustering focalizers there are cases in which the first element of a pair of focalizers (usually the negation) has just the second one in its scope, cf. her example *Terry will run not surprisingly to Brooklyn*.

As far as I can tell, no other combinations of focalizers occur within the focus of a sentence than these two kinds of clusters.

2.5 Focalizers both in the prototypical position and in T

We have already seen with (8) that further combinations of focalizers are those where one of them occurs in the prototypical position and another one within T. This concerns above all echo sentences (corrections), closely bound to preceding co-text from which the CB focalizer is repeated, or in answers repeating the relevant part of the respective questions, like in the following examples:

(17) (Why didn't this step lead to a success?) It didn't lead to a success since Harry arrived too LATE.

Here *to a success* clearly is in the ff of the negation. This seems to be similar with other focalizers in such a position:

(18) (Has even JERRY noticed anything?) Well, even Jerry has noticed Mike's ANNOYMENT.

(19) (Mike undoubtedly has seen NESSIE.) If he has undoubtedly seen Nessie, then it is a pity he was there ALONE.

(20) (Yesterday there was just JIM there.) Since just Jim was there, I prefer not to CONTINUE.

If we assume that in (18) only *Jerry*, in (19) only *Nessie* and in (20) only *Jim* constitute the ffs of *even*, *undoubtedly*, and *just*, respectively, then again we can state that the ff is determined here as a contrastive part of the topic, namely the 'new' topic, which in the preceding utterance occurred as (a part of) its F and may bear phrasal stress.

It is worth noting that *even* (and perhaps some other focalizers) may occur in T without being repeated from preceding co-text, as has been documented by example (8).

In such a combination of two focalizers as in (8), our framework allows to specify that the main one (at the boundary between T and F) is that which occupies the rightmost position. On the other hand, as documented by (17) - (20), there are sentences which contain a focalizer, but nevertheless have their boundary between T and F in another position. It is important to work with such representations of sentences in which these two cases are distinguished from the prototypical one, in which the focalizer occupies the position at the T/F boundary, if a focalizer is present at all.

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