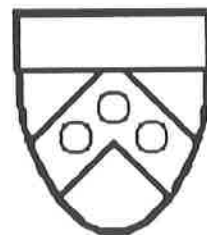


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ONLY AND FOCUS*

Enric Vallduví

University of Pennsylvania

1 Introduction

A certain class of words, including items like *only*, *even*, and *also*, has been claimed to have an intimate tie with the FOCUS of the sentence. These items, known as scalar particles, are sometimes also called ‘focus adverbs’ or ‘focus inducers’ (Karttunen & Peters 1979, Jacobs 1984, 1986) or ‘focus-sensitive particles’ (Kratzer 1989), and their intimate tie with focus has been named ‘association with focus’ (Jackendoff 1972, Rooth 1985). A radical variant of this claim argues that focus is not a non-truth-conditional informational notion, as traditionally recognized, but a truth-conditional *only*-type exhaustive-listing operator (Szabolcsi 1981, 1983, Svoboda & Materna 1987). While it is undeniable that a certain interaction exists between *only* and focus, this paper shows that ‘association with focus’ is not an inherent property of this scalar particle. This finding is in agreement with the approach that suggests that the exhaustiveness ‘feeling’ is a pragmatic implicature (Horn 1981), and supports the conclusion that ‘association with focus’ is not part of the semantics of *only*, but a pragmatically induced mirage.

2 Background

2.1 Focus and Ground

It has long been recognized that sentences are structured with respect to non-truth-conditional notions that reflect a ‘packaging’ of information in discourse (cf. Chafe 1976, Prince 1986). Focus-presupposition or focus/open-proposition structure (Chomsky 1971, Jackendoff 1972, Prince 1981, 1986, Ward 1985) is one of several informational articulations of the sentence that have been proposed in the literature. The presupposition is a variable-containing open structure that represents the old information or discourse-presupposed material in the sentence, i.e. that part of the sentence which is considered known to the hearer at the time of utterance. In what follows, we will use the term GROUND to refer to this material (cf. Chafe’s ‘background’ in Chafe 1976). Its main informational force consists in anchoring the focus appropriately in the discourse model. Its complement, the focus, is the assertion of the utterance in Stalnaker’s (1975) or von Stechow’s (1981) terms, or its ‘informative part’ following Halliday (1967). The fact that the focus instantiates the variable in the ground’s open-proposition is the only new information in the utterance (cf. Prince 1986). Besides, the focus is always marked by means of intonational prominence.¹ Example (1) illustrates this (capitalization stands for intonational prominence):

- (1) I sprinkled SALT in the stew.
 GROUND: I sprinkled x in the stew
 FOCUS: x = salt

2.2 *Only*

Only is always semantically associated with some other constituent in the sentence. This semantic association, however, does not have to be necessarily reflected in the overt syntax in a continuous constituent. Thus, while *only*+XP forms a syntactic constituent in (2), it does not do so in (3) (the element semantically associated with *only* is italicized):

- (2) a. I *only sprinkled salt in the stew.*
 b. I *only sprinkled* salt in the stew.
 c. I sprinkled *only salt* in the stew.
 d. I sprinkled salt *only in the stew.*
- (3) a. I *only* sprinkled salt in the stew.
 b. I *only* sprinkled salt in the *stew.*

The association of *only* with different parts of the sentence yields different truth-conditional interpretations.²

The constituent *only* is associated with has been called the 'scope' of *only* (Anderson 1972, Hoeksema 1989), and the 'focus' of *only* (Karttunen & Peters 1979, Jacobs 1982, 1984). Rooth (1985) suggests rejecting the term 'scope', since it is used differently elsewhere, and I wish to avoid the term 'focus' for obvious reasons. Therefore, I shall call the element semantically associated with *only* ONLY'S PARTNER.

2.3 *Only's* Partner and Focus

Jackendoff (1972) notices that *only's* partner is generally intonationally prominent, i.e. it seems to be the focus of the sentence. He proposes a rule of 'association with focus', by means of which preverbal *only* is linked to the focus of the sentence to form an intimate semantic tie between the two. Rooth (1985) takes up on this proposal and develops it further. For him, the truth-conditional interpretation of *only* requires its association with focus. The focus element provides a p-set, a set of relevant alternates within a given discourse, which represent the quantificational domain for *only*. Rooth's analysis will be discussed in detail in Section 5. It is clear from this approach that *only's* partner must be the focus of the sentence. This view is found in Hoeksema (1989) as well, who affirms that the 'scope' of 'focus adverbs' —his terms— is 'determined by intonational means, being restricted to a focus constituent' (1989:106)

Similarly, Jacobs (1984, 1986) argues that, if a scalar particle occurs in a sentence, the focus of that sentence must be the partner of the scalar particle. Remember that, as we mentioned above, Jacobs refers to scalar particles as 'focus inducers'. He calls the focus in sentences with scalar particles 'bound focus' and the focus in sentences without scalar particles 'free focus'. Even though Jacobs is careful to point out that bound focus belongs to the domain of truth-conditional meaning and free focus to the domain of pragmatics (1986:fn.7), he also states 'that scalar particles are focus inducers in all of their occurrences' (1986:107). In other words, the focus of the sentence must be *only's* partner if *only* is present.³

2.4 Focus is Only *Only*

These analyses represent quite a conflation of the ‘meanings’, in the wide sense of the word, of focus and *only*. It is not uncommon to find treatments that assume that focus has an implicit exhaustiveness property, even in the absence of overt exhaustiveness operators like *only*. This position has been taken to an extreme in the work of Szabolcsi (1981, 1983) and Svoboda & Materna (1987).⁴ It is argued by these authors that focus has nothing to do with the informational articulation of the sentence. Instead, they claim that focus is precisely an exhaustiveness operator. Svoboda & Materna, for example, equate (4)a (their ex. 17) to (4)b, and Szabolcsi (1981) would provide the translation in (4)c (which I have extrapolated from a parallel example):

- (4) a. CHARLIE visited Prague.
 b. The only x that visited Prague is Charlie.
 c. For all x , x visited Prague iff $x = \text{Charlie}$.

I will argue below that it is incorrect to assume that *only* is automatically associated with focus, let alone that focus is *only*. But before we must look into some related work done on the relationship between exhaustiveness and it-clefts.

3 Exhaustiveness and It-Clefts

The issue of whether it-clefts entail, conventionally implicate, or conversationally implicate exhaustiveness was a matter of debate a few years ago. Halvorsen (1978) claimed that it-clefts conventionally implicate exhaustiveness. However both Horn (1981) and Atlas & Levinson (1981) attacked that position. Conventional implicatures are supposed to survive negation and yes-no questioning, but the putative exhaustiveness conventional implicature associated with it-clefts does not survive under such conditions. While it can be plausibly argued that (5)a conventionally implicates (6), it seems clear that (5)b and (5)c do not (they are, respectively, Horn’s (1981) 4a, 4d, 5a, and 5b):

- (5) a. It was a pizza that Mary ate.
 b. It wasn’t a pizza that Mary ate.
 c. Was it a pizza that Mary ate?
- (6) Mary ate nothing (within some contextually defined set) other than a pizza.

Given these and other considerations, Atlas & Levinson argue that it-clefts truth-conditionally entail exhaustiveness (basically, they posit a null *only* operator). Horn shows that the exhaustiveness ‘feeling’ cannot be truth-conditional either. If it-clefts entailed exhaustiveness, (7)b should be as felicitous as (7)a is (Horn’s 11’ and 11c, respectively):

- (7) a. I know Mary ate a pizza, but I’ve just discovered that it was only a pizza that she ate.
 b. # I know Mary ate a pizza, but I’ve just discovered that it was a pizza that she ate.

Horn concludes that the exhaustiveness ‘feeling’ that it-clefts emanate is instead a generalized conversational implicature not at all confined to it-clefts.

How is this finding relevant for our purposes here? It has been convincingly argued from Akmajian (1979(1970)), Chomsky (1971) to Prince (1978, 1986) that it-clefts are special focus-ground marking constructions in that the clefted element is always the focus of the sentence. Horn’s arguments against truth-conditional exhaustiveness in clefts are, in fact, arguments against truth-conditional exhaustiveness of focus in general. As already pointed out by Horn, sentence (8), where *pizza* is the focus, also seems to convey an exhaustiveness ‘suggestion’.

(8) Mary ate a PIZZA.

This suggestion must be ascribed to pragmatics as a generalized conversational implicature as well, especially after considering the data in the following section.

4 Contrasts between *Only* and Focus

Following Horn’s lead, I will further argue for the position that focus is not an *only*-type operator and, furthermore, that it is incorrect to assume that *only* is automatically associated with focus. If we find environments where focus and *only* contrast, we will have further evidence for their non-identity, and, if we find sentences where the focus of the sentence is distinct from *only*’s partner, we will have grounds for arguing that ‘association with focus’ is not the appropriate way to tackle the logical semantics of *only*.

4.1 Non-Identity of *Only* and Focus

First I will present some evidence that, as suggested by Horn (1981), focus is not equivalent to an exhaustiveness operator. It is clear that *only* and focus are not always interchangeable. One example that immediately comes to mind is the contrast in (9):

- (9) a. I met NOBODY at the party.
b. *I met *only* NOBODY at the party.

Of course, (9)b is semantically anomalous because *only* and its partner are incompatible. And that is precisely the point: focus and *nobody* are not incompatible. Therefore, focus and *only* must be non-identical. While *nobody* may be the focus of the sentence, it may not be the partner of *only*.

The contrast between focus and *only* need not yield ungrammaticality, as in (9), but may be a matter of infelicity in a given context. With respect to (10), it may be claimed that it is necessary that the speaker has never been to the Brazilian jungle for the sentence to be true,

(10) I’ve been to the CITIES in Brazil.

but that this is not the case is evident from contextualizations like (11). Notice that (11)b, with an overt *only*, is indeed infelicitous:

- (11) a. I knew the Amazon quite well and now I've been to the CITIES in Brazil
 b. # I knew the Amazon quite well and now I've *only* been to the CITIES in Brazil.

We conclude then, without further argument, that Szabolcsi's (1981, 1983) and Svoboda & Materna's (1987) position is incorrect.

4.2 *Only* in Non-Association with Focus

It is also possible to show that *only* can occur without any association with focus, in other words, that *only*'s partner need not be the focus of the sentence. Take, for instance, example (12)a. At first blush, it may seem that the only way to utter this sentence is with prosodic prominence on *John*, contrary to what the capitalization in the example indicates. Rooth (1985:128), for instance, claims that in *Only John loves Mary*, *John* is obligatorily focused. But (12)a is perfectly felicitous in a context like (12)b:

- (12) a. *Only John's* been to the CITIES in Brazil.
 b. John and Mary know the Amazon quite well but *only John's* been to the CITIES in Brazil.

In (12)b *only's* partner is non-focal. The focus, *cities*, is totally independent of *only* and its partner.⁵

Also, it is well known that *only* may appear in the non-clefted part of it-clefts. Example (13)a is from Horn (1969; ex. 20a), and the sentence is equally acceptable with only the second *only* ((13)b or (13)c):

- (13) a. It's *only JOHN* who eats *only rice*.
 b. It's JOHN who eats *only rice*.
 c. It's JOHN who *only* eats *rice*

Since, following the aforementioned work by Prince and others, the non-clefted part of it-clefts is part of the ground, in (13)b/(13)c *only* and its partner are non-focal. *Only's* partner is also clearly non-focal in the response to the question in (14):

- (14) a. What food would you *only* eat *if you had to*?
 b. LIVER, I would *only* eat *if I had to*.

The answer in (14) is an instance of focus-preposing, a construction discussed in Prince (1981, 1986) and Ward (1985). In focus-preposing, as the very name indicates, the focus of the sentence is dislocated to a sentence initial position. It must not be confused with non-focal preposing or topicalization, where the focus of the sentence remains in situ and a subset of the ground is preposed (cf. Gundel 1974, Prince 1981). The meaning of (14)b is that the speaker would not eat liver unless s/he had to. If *only* were associated with focus, its meaning would be different: if s/he had to, the speaker would eat exclusively liver and no other food.

Gapping is a construction that has also been argued to mark focus-ground relationships (see Prince 1986). It is traditionally recognized that the only non-elidable part of the sentence is the focus, since it represents the only addition of information in the current discourse. If there exist gapping constructions where *only* and its partner constitute the gapped material, there exists another environment in which *only* occurs in non-association with focus. Example (15)a is a typical example where *only*'s partner is the focus of the sentence. The second conjunct in (15)b is an acceptable continuation of (15)a. In (15)b, *only scratching* is part of the ground, and therefore it is gapped. Again, we witness an example where focus is not associated with *only* in any way.

- (15) a. Mary *only* *SCRATCHED* the Mercedes.
 b. Mary *only* *SCRATCHED* the Mercedes, and John — the BENTLEY.

Finally, we can also find evidence in other languages. In Catalan, right-dislocation removes non-focal material from the clause by means of detaching it to the right, while the focus is left in clause-final position (cf. Vallduví 1988). *Only* —or, in this case, its Catalan equivalent *només*— and its partner, however, can appear in the right-dislocation slot, clearly unrelated to the focus of the sentence, as in (16)a. The sentence in (16)b is the corresponding canonical.

- (16) a. Ens en₁ NODRIM, *només-d'arròs*₁.
1p-refl obj 1p-feed only of rice
 Approx.: '(We) LIVE only on rice.'
 b. Només ens nodrim d'arròs.

The focus in (16)a is on the verb, not on the right-dislocated direct object. Again, there is an *only* that occurs with no association with focus. In fact, a similar sentence can be constructed in English, as shown by (17)b, in a context like (17)a. The relevant construction in (17)b (underlined) is a topicalization, which preposes non-focal material:

- (17) a. When we were in China, we *only* lived on rice.
 b. Boy, I'm glad I wasn't there. I'm not finicky,
 but *only on rice* I COULDN'T LIVE.

We must conclude, then, that *only*'s partner need not be the focus of the sentence, i.e. that association with focus is not a necessary condition for the interpretation of *only*.

5 Consequences for Rooth's Semantics of *Only*

5.1 Background

The fact that *only* is not necessarily associated with focus has obvious consequences for Rooth's (1985) analysis of the semantics of *only*. Rooth sets out to account for the truth-conditional difference between (18)a and (18)b (Rooth's 5a and 5b, Ch. 2). If John introduced Jim and Bill to Sue, (18)a is false, but (18)b might still be true.

- (18) a. John *only* introduced *BILL* to Sue.
 b. John *only* introduced Bill to *SUE*.

He notices that *only*'s partner is the focus of the sentence, i.e. that *only* must apparently be associated with the focus constituent, and argues that focus furnishes the selection of the domain of quantification to the semantics of *only*. Expanding on the older proposal in Jackendoff (1972), he proposes that focused constituents are assigned an extra denotation that generates a set of alternatives for this focus. This set of alternatives, the P-SET, is obtained by substituting the focus for a variable in the predicate structure. Thus, sentence (19)a generates, along with a normal denotation, the set of propositions in (19)b, where y is the variable substituted for the focus constituent and E stands for some contextually relevant set of individuals:

- (19) a. John introduced BILL to Sue.
 b. $\{ \wedge \text{introduce}'(y,s)(j) \mid y \in E \}$

The p-set represented by (19)b is taken as the domain of quantification needed by the meaning of *only*; *only* marks only one of the alternatives as being the case. Sentence (20)a is, then, paraphrased as in (20)b (Rooth's 47, Ch. 2):

- (20) a. John *only* introduced *BILL* to Sue.
 b. If a proposition of the form 'John introduced x to Sue' is true, then it is the proposition 'John introduced Bill to Sue'.

In other words, the p-set (alternative propositions) is made available on independent grounds by focus, and *only* merely uses that p-set as a domain of exhaustiveness quantification.

5.2 Problems

Given the data that we presented in the previous section, Rooth's position regarding the involvement of focus in determining the p-set becomes less plausible. Consider sentence (13)c, repeated here as (21)a. *Only* requires a p-set of the relevant sort to determine its domain of quantification. For (21)a, it is (21)b, where E is, say, the set of starchy foods $\{bread, rice, noodles\}$:

- (21) a. It's JOHN who *only* eats *rice*.
 b. $\{ \wedge \text{eat}'(y)(j) \mid y \in E \}$
 c. $\{ \wedge \text{eat}'((\text{only}-r)(x)) \mid x \in E \}$

The problem here is that the p-set cannot be independently provided by focus, since *only*'s partner is not the focus in (21)a. The focus structure of (21)a would provide the p-set in (21)c, where E is the set of, say, housemates $\{Rita, John, Margo\}$, for which *only* has no use in this sentence. This is tantamount to saying that *only*'s partner must necessarily be assigned a second denotation that generates the p-set independent of whether it is focus or ground. In other words, *only* does not require association with focus to have access to the

relevant p-set, since any constituent that ends up being *only*'s partner can generate such a p-set.

In fact, this is not surprising at all. It is well known that almost any term in a sentence can be understood as pertaining to (at least) one set of some kind. This property is by no means restricted to focus. This gives rise to the pervasive conversational and scalar implicatures that accompany almost every utterance (cf. Hirschberg 1985). Given a prosodically neutral sentence like (22)a, a number of different sets can be evoked:

- (22) a. The middle-income woman bought the average-sized pick-up.
 b. The middle-income WOMAN bought the average-sized pick-up

Significantly, the same is true if focus is narrowed down to a single constituent. If, for instance, *woman* in is focused ((22)b), the p-sets for the other constituents do not disappear, provided that the context is such that the alternates are of some interest. See Rubinoff (1987) for some examples of scalar implicatures triggered by non-focal constituents.

Assuming that Rooth's semantics for focus are essentially right in arguing that a second denotation for *only*'s partner is needed, we conclude from the above that the availability of such second intensional translation is not due to the presence of a focus feature at the level of logico-semantic representation. It is, rather, a more general characteristic of any linguistic phrase uttered in the appropriate context. All, or most, constituents in a sentence may generate a p-set that *only* may use to determine its domain. In turn, this confirms that focus is not needed in accounting for the semantics of *only*. Finally, all of these suggest that, if the domain selection theory for *only* is to be maintained (as opposed to the 'scope' theory rejected by Rooth), a new way to establish the association between ad-VP *only* and its partner must be found.

6 But There's a Large Overlap

While it is clear, then, that the relationship of focus and *only* is not a necessary one, it is also obvious that there is a large number of cases—a vast majority one should say—in which *only*'s partner is the intonationally prominent element and indeed seems to be the focus of the sentence. In what follows, I will sketch an account of such overlap. I argue that the fact that *only*'s partner is usually the focus of the sentence in which it occurs—although, as we have seen, not necessarily so—follows from independent pragmatic considerations.

6.1 Focus and Ground Revisited

As we mentioned briefly in Section 2.1, the material in the ground is discourse-presupposed material which does not add any information to the current discourse model. The only informational force it has is that of anchoring the informative part of the utterance—the focus—appropriately in the model. For instance, sentence (18)a/(20)a, repeated here as (23),

- (23) John *only* introduced *BILL* to Sue.

reflects, roughly, the following packaging instruction: ‘As for the discourse entity ‘John’, I direct you to retrieve the relevant open frame *He introduced x to Sue* and I inform you that ‘(only) Bill’ is what instantiates the variable in it’. In other words, John’s introducing, with Sue being the goal of such introducing, must be already relevant and ‘around’ somehow at the time of utterance.

Now, consider the apparently semantically anomalous sentence in (24).

(24) *John *only* introduced *Bill* to SUE.

This sentence is claimed to be unacceptable in the intended reading because *only* is not associated with focus. In other words, if the focus is on *Sue*, *Sue* must be interpreted as *only*’s partner. For the sake of the argument, however, we could ask ourselves what the informational load of (24) would be. It would be along the lines of ‘As for the discourse entity ‘John’, I direct you to retrieve the relevant open frame *He introduced only Bill to x* and I inform you that ‘Sue’ is what instantiates the variable in it’. In other words, John’s introducing only Bill, —not just John’s introducing Bill— must be already relevant and ‘around’ somehow at the time of utterance. So, in the marked cases in which *only* and its partner are not the informative part of the utterance —the focus— their informational force is in appropriately anchoring the focus in the discourse model. Exhaustiveness must be important for this informational task, or, otherwise, —by Gricean convention— there is no need to include it in the ground: why direct hearers to retrieve a relevant open frame *He introduced only Bill to x* to instantiate the focus in it, when directing them to retrieve the frame *He introduced Bill to x* would do the same exact job?

6.2 Semantically Anomalous or Pragmatically Unlikely?

In principle, the state of affairs that the informational structure of (24) requires is not an impossible one. In fact, all the examples of non-association with focus I introduced above represent such a state of affairs. The inclusion of exhaustiveness in the ground may indeed make a difference. However, contextual situations in which exhaustiveness is still relevant for anchoring new information but is not part of it are rare, and, therefore, so are utterances that reflect such a state of affairs. One such context, for instance, is the one in (25):

- (25) a. I know that
1. John introduced Bill and Barb to Ralph
 2. John introduced Bill (but not Barb) to *x*
- b. I don’t know that
3. *x* = Sue
- c. So I ask Mary
- Who did John *only* introduce *BILL* to?

A perfectly acceptable answer to (25)c in such a context —ratified by several native speakers of English— is precisely the putatively unacceptable string in (24) above, which is repeated here for convenience as (26). Notice that *SUE* here cannot be *only*’s partner, since John introduced Bill to Ralph too.

(26) John *only* introduced *Bill* to SUE.

The contextual sophistication required for the felicity of this utterance, however, is considerably larger than the sophistication required for utterances like (23). So much so, I suggest, that when we are presented with such a string we cling to the reading where the focus is *only's* partner unless strong contextual pressure forces on us a reading where *only's* partner is non-focal. It must be concluded from this that the different truth-conditions observed in these sentences are, in principle, completely independent of the location of focus in the sentence.

6.3 *Only's* Partner in the Discourse History

If we look back into the discourse history previous to every utterance where *only* is in non-association with focus —let us call it U_t —, we notice that, in the majority of cases, *only's* partner was the focus in some previous utterance U_{t-n} . See, as examples, (14), (15), (17), and (26). This fact is, of course, irrelevant for a static propositional semantics of the sort Rooth uses: that *only's* non-focal partner at U_t was a focus at U_{t-n} cannot be taken into account in the semantic representation of U_t . At U_t *only's* partner is non-focal and still provides a second intensional translation. Discourse history is of no use.

However, a dynamic approach to truth-value computation, à la Kamp (1981) for instance, which makes use of chunks of discourse larger than the proposition, might be able to utilize the fact that *only's* non-focal partner at U_t was a focus at U_{t-n} . It could be argued, for instance, that in the question-answer pair in (25)-(26), repeated here as (27),

- (27) a. Who did John *only* introduce *BILL* to?
 b. John *only* introduced *Bill* to SUE.

the p-set generated by the focus and used by *only* as a domain of exhaustive quantification in (27)a is 'frozen' and passed down somehow to (27)b, where it is still available as a domain of quantification for *only* by virtue of its partner having been a focus in the relevant discourse history.

Even if such an approach could be worked out, and leaving aside the problem of disallowing *only* to quantify over the p-set provided by the real focus in U_t , we find examples where there is no explicit mention of *only's* non-focal partner in the discourse history:

- (28) [A last-minute guest arrives at host's house. The host has known the guest's family for years]
 A: I'm glad you could come for dinner. Had I known before, I wouldn't have made pig's feet.
 B: I love pig's feet. It's my SISTER who *only* eats *prime cuts*.

Obviously, such example is only felicitous in a context where the host knows that one of the guest's family members eats only prime cuts (although there is a mix-up with respect to exactly which person), and, furthermore, where exhaustiveness is crucial in anchoring the focus in (28)B appropriately, since, presumably, the guest herself eats prime cuts too. But it is nevertheless a flawless example.

Why, then, *only*'s non-focal partners tend to be common only if found in a U_t which follows a U_{t-n} in which they were focal? The answer, is, I think, very straightforward: most non-focal elements found in a U_t were focal in a U_{t-n} . Since the focus is the informative part of the utterance, the majority of ground material in a discourse enters it as focal material at a previous time. Not all of it, however. Some of it is shared knowledge, unused material that was already available when the discourse started. Given this, the prediction is that *only* phrases will be acceptable as non-previously-mentioned ground material when they represent shared knowledge and, as we said above, when exhaustiveness is important to anchor the focus appropriately. I believe example (28) satisfies both these requirements.

7 Conclusion

The approach I sketched out in Section 6 suggests that the tendency —not requirement— to associate *only* with focus is due to factors which are clearly pragmatic. Situations in which *only* and its partner are non-focal require a large degree of contextual sophistication. Situations in which exhaustiveness is part of the focus require little contextual sophistication. As a consequence, due to the pragmatic unlikelihood of non-focal exhaustiveness, we only accept *only*'s partner as non-focal in presence of compelling contextual pressure.

Given that, in the appropriate context, cases of non-association with focus are perfectly acceptable, we should not build 'association with focus' into our semantics of *only*. The notion of p-set proposed by Rooth (1985), or a similar mechanism (cf. Kratzer 1989), and the domain selection theory for *only* seem to be helpful tools in accounting for *only* quantification. What I have tried to show here is that association with focus is not the right way to provide *only* with the correct domain of quantification, since *only*'s partner need not be the focus: the p-set generated by *only*'s partner second denotation, and therefore the second denotation itself, must be provided by *only*'s non-focal partners as well. This conclusion supports the position that focus is a real packaging, informational notion that has no place in truth-conditional logico-semantic interpretation. To conclude, I would like to modestly suggest that Kratzer's (1989) 'The Representation of Focus', an important contribution to the semantics of *only*, be remembered, contra its title, as 'The Representation of *Only*'s Partner (Whether It Is Focus or Not)'.

NOTES

- *. A shorter version of this paper was presented at the 1989 LSA Meeting in Washington, D.C. I am indebted to Sharon Cote, Jack Hoeksema, Tony Kroch, Megan Moser, Ellen Prince, and Lyn Walker for an assortment of helpful suggestions. Still, all shortcomings are my own.
1. It is worth mentioning that the sense in which we use the term 'focus' here has very little to do with the usage of the same term by Grosz (1977) and Sidner (1979) and much later work in AI. In fact, they denote precisely opposite notions.

2. In this paper, I make no reference to adjectival or conjunctive *only*, or to the 'volitional' *only*, as in *If I only had a million*. Synonyms of *only* are *just* and adverbial *alone*, as in *I sprinkled salt in the stew alone*, but the latter does not allow syntactic discontinuity between itself and the element it is semantically associated with.
3. It is possible to have more than one focus in a sentence (cf. *She gave a BOOK to MARY, and a TAPE to JOHN*). In Rooth's (1985) system, *only* is associated with both foci. Sentences with more than one focus, however, are not very common, and they are distinguishably marked by prosody.
4. It seems that Szabolcsi (1986) has abandoned this position (cf. Kenesei 1986).
5. Sentence (12)b could be understood as a double-focus reading, where both *John* and *cities* are foci. This reading is still problematic for Rooth 1985, since association with both foci is required. The meaning of (12)b with a double-focus reading, according to Rooth (1985) is 'If a proposition of the form "x has been to y in Brazil" is true, then it is the proposition "John has been to the cities in Brazil"'. In our context this is clearly not the case, since Mary has been to the jungle in Brazil (cf. Section 5 below for greater detail on this). However, in case this example is unclear, the examples that follow in the text are all cases in which *only*'s partner is indubitably non-focal, since it is clearly found in the ground segment of focus/ground marking constructions.

REFERENCES

- Akmajian, A. 1979 (1970). *Aspects of the Grammar of Focus in English*. New York: Garland.
- Anderson, S. 1972. How to Get *even*. *Language* 48.893-906.
- Atlas, J. & S.C. Levinson. 1981. It-Clefts, Informativeness, and Logical Form: Radical Pragmatics (Revised Standard Version). In P. Cole, ed. *Radical Pragmatics*. New York: Academic Press. Pp. 1-61.
- Chafe, W.L. 1976. Givenness, contrastiveness, definiteness, subjects, topics, and point of view. In C. Li, ed. *Subject and topic*. NY: AP. Pp. 25-55.
- Chomsky, N. 1971. Deep structure, surface structure, and semantic interpretation. In D. Steinberg & L. Jakobovits, eds. *Semantics*. Cambridge: Cambridge U. Press. Pp. 183-216.
- Grosz, B. 1977. The Representation and Use of Focus in Dialog Understanding. Technical Note 15, SRI International, Menlo Park.
- Halliday, M.A.K. 1967. Notes on transitivity and theme in English (Part II). *Journal of Linguistics* 3.199-244.

- Halvorsen, P.K. 1978. *The Syntax and Semantics of Cleft Constructions*. *Texas Linguistic Forum* 11. Austin: University of Texas.
- Hirschberg, J. 1985. *A Theory of Scalar Implicature*. University of Pennsylvania Ph.D. dissertation.
- Hoeksema, J. 1989. *Only* in Dutch: A Comparison of Three Adverbs. *Penn Review of Linguistics* 13.106-122.
- Horn, L. 1969. A Presuppositional Analysis of *Only* and *Even*. *CLS* 5.98-107.
- Horn, L. 1981. Exhaustiveness and the Semantics of Clefts. *NELS* 11.125.142.
- Jacobs, J. 1984. Funktionale Satzperspektive und Illokutionsemantik. *Linguistische Berichte* 91.25-58.
- Jacobs, J. 1986. The Syntax of Focus and Adverbials in German. In Abraham, W. & S. de Meij, eds. *Topic, Focus, and Configurationality*. Amsterdam/Philadelphia: John Benjamins. Pp. 103-127.
- Jackendoff, R. 1972. *Semantic Interpretation in Generative Grammar*. Cambridge: MIT Press.
- Kamp, H. 1981. A Theory of Truth and Semantic Representation. In Groenendijk J. et al., eds. *Formal Methods in the Study of Language*. Amsterdam: Mathematical Centre Tracts. Pp. 277-322.
- Karttunen, L. & S. Peters. 1979. Conventional Implicature. In Oh, C.K. & D. Dinneen, eds. *Pragmatics (= Syntax and Semantics 9)*. New York: Academic Press.
- Kenesei, I. 1986. On the Logic of Word Order in Hungarian. In Abraham, W. & S. de Meij, eds. *Topic, Focus, and Configurationality*. Amsterdam/Philadelphia: John Benjamins. Pp. 143-159.
- Kratzer, A. 1989. The Representation of Focus. Paper presented at the 1989 LSA Summer Institute. Tucson: University of Arizona.
- Prince, E.F. 1978. A Comparison of Wh-clefts and It-clefts in discourse. *Language* 54.883-906.
- Prince, E.F. 1981. Topicalization, Focus-Movement, and Yiddish-Movement: a pragmatic differentiation. *BLS* 7.249-64.
- Prince, E.F. 1986. On the syntactic marking of presupposed open propositions. In A. Farley et al., eds. *Papers from the Parasession on Pragmatics and Grammatical Theory at the 22nd Regional Meeting of the Chicago Linguistic Society*. Pp. 208-22.
- Rooth, M. 1985. *Association with Focus*. University of Massachusetts Ph.D. dissertation.

- Rubinoff, R. 1987. Scalar Implicature and the Given/New Distinction. *Penn Review of Linguistics* 11.101-107.
- Sidner, C. 1979. *Towards a Computational Theory of Definite Anaphora Comprehension in English Discourse*. MIT Ph.D. dissertation.
- Stalnaker, R. 1975. Assertion. Ms.
- von Stechow, A. 1981. Topic, Focus and Local Relevance. In Klein, W. & W. Levelt, eds. *Crossing the Boundaries in Linguistics*. Dordrecht: Reidel. Pp. 95-130.
- Svoboda, A. & P. Materna. 1987. Functional Sentence Perspective and Intensional Logic. In Dirven, R. & V. Fried, eds. *Functionalism in Linguistics*. Amsterdam/Philadelphia: John Benjamins. Pp. 191-205.
- Szabolcsi, A. 1981. The semantics of Topic-Focus Articulation. In Janssen, T.M.V. & M.B.J. Stokhoj, eds. *Formal methods in the study of language*. Amsterdam: Mathematisch Centrum. Pp. 513-40.
- Szabolcsi, A. 1983. Focussing properties, or the trap of first order. *Theoretical Linguistics* 10.125-45.
- Szabolcsi, A. 1986. From the Definiteness Effect to Lexical Integrity. In Abraham, W. & S. de Meij, eds. *Topic, Focus, and Configurationality*. Amsterdam/Philadelphia: John Benjamins. Pp. 321-348.
- Vallduví, E. 1988. Constituent Focusing and Catalan Right Dislocation. Paper presented at the 1988 Annual Meeting of the Linguistic Society of America. New Orleans: 27-30 December.
- Ward, G. 1985. *The Semantics and Pragmatics of Preposing*. University of Pennsylvania Ph.D. dissertation.