

Five *only* pieces

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This article is a discussion of Bart Geurts and Rob van der Sandt’s “Interpreting Focus,” henceforth GvdS.¹ The discussion is divided into five pieces, each tackling a different aspect of their analysis, particularly as it applies to the exclusive *only*.

1. If *only* is universal, does that make it strong?

GvdS argue that the secret to analyzing the properties of *only* lies in a choice between truth-conditionally equivalent representations. Specifically, they contrast their representation of *only* with that adopted by Horn (1996). Consider a sentence “*only* PN VP”, where PN is a proper name and VP is a verb phrase. Horn’s representation would be $\forall x (vp(x) \rightarrow x = pn)$. GvdS say *only* should be analyzed not as a universal but as “a negated existential.” In predicate logic, and ignoring presuppositions, the GvdS representation of the same sentence type would be $\neg \exists x (vp(x) \wedge \neg(x = pn))$. Although the two representations are truth conditionally equivalent, GvdS maintain that theirs is right and Horn’s is wrong.

GvdS’s first argument against Horn is based on the question of whether *only* is a strong or a weak quantifier. In particular, they claim that Horn analyzes *only* as a strong quantifier, while they believe it to be weak. Unfortunately for GvdS, Horn makes no such claim, and his analysis does not imply the claim either. Another problem is that the evidence GvdS offer that *only* is weak rests on a questionable assumption. This is less of a problem, because their conclusion is plausible. I will begin with the questionable assumption, and then move onto the question of whether Horn is committed to analyzing *only* as strong.

The primary piece of evidence GvdS offer for *only* being weak is that it is licensed in *there*-insertion contexts. They cite the following (their example 39):

- (1) There are {some / no / *only* / *all *most} firemen available.

¹ When referring to “GvdS”, my comments concern “Interpreting Focus” (this volume), not other work of these authors, unless so noted.

The trouble with (1) is that the coherence of the example paradigm depends on *only* being a determiner. Yet it is not obvious whether *only* here is acting as a determiner. One reasonable analysis would be that in *only firemen*, *firemen* is a bare plural, itself a full NP. Then it could be modified by *only* just as in *only Caesar* or *only the fish*. In that case, *only firemen* would be licensed in a *there*-insertion context just because the underlying bare plural is licensed: *there are firemen available*. Yet another possibility is that *only* is an adverb in (1), and licensed by analogy with other adverbs. In fact, most adverbs and focus sensitive particles are licensed in this position, and so the claim that this distributional property marks *only* (or *only firemen*) as weak is laughable:²

- (2) There are {only / always / usually / never / even / also / } firemen available.

Although Horn does not claim that *only* is a strong quantifier in the article GvdS cite (Horn, 1996), the reason GvdS think he does is clear. Horn's analysis involves a universal quantifier, and universals are strong, right? No. The strong/weak NP distinction has been analyzed in various ways, but I do not believe universal quantification is a defining feature. Neither do Barwise and Cooper (1981) or Keenan (1987, 2003).³ The strong/weak distinction is commonly analyzed as involving inferential properties of NPs. To take the most recent, and best, of these analyses, Keenan (2003) proposes that a determiner is licensed in *there*-insertion contexts just in case the determiner is, as he puts it, *conservative in its second argument*. A determiner is conservative in its second argument if the truth of a simple sentence *det(N)(VP)* can be evaluated just by looking at properties of individuals in the VP denotation. For example, *no* has this property because to evaluate *no woman ran* you only need look at the set of runners.

² A second piece of evidence GvdS offer for weakness of *only* involves the construction *X days ago*. One distraction in considering this argument is that their (40a), which they take to be felicitous, is not felicitous for me or other English speakers I have consulted. Ignoring this distraction, the construction is still a poor test. First, it is not diagnostic of *weak/strong*, since on this test *no* patterns with strong quantifiers, when it is standardly analyzed as weak. Second, we have the problem that *only* is clearly not a determiner in *only two days ago* (see their 40b). So there is no analogy with e.g. *some days ago* (see their 41). Just as for the *there*-insertion argument I discuss in the main text, it could be that *only* is permissible because it modifies an NP (*two days*) which is licensed in this position.

³ Other recent analyses of *there*-insertion include Zucchi (1995) and McNally and van Geenhoven (1998). Note that if *only N* is an NP in a *there*-insertion context, this counter-exemplifies the (otherwise well-argued for) McNally/van Geenhoven claim that only property denoting NPs should be licensed.

By comparison, *every* lacks the property because *every woman ran* can differ in truth value in two models which agree completely about the set of runners and which of them are women: to evaluate the truth of the sentence it is necessary to consider whether any non-runners are women. Keenan’s test correctly predicts that *only*, which he treats as a determiner, is licensed in *there*-insertion contexts, since “only women ran” can be evaluated just by considering the set of runners (and checking that it contains no non-women). We can see how Keenan’s analysis applies to Horn’s theory. For Horn, “only women ran” would assert $\forall x \text{ran}(x) \rightarrow \text{woman}(x)$, a formula which can be evaluated just by checking properties of individuals in the extension of *ran*. So Horn and Keenan combine to predict that *only* is licensed in *there*-insertion contexts.⁴

It is interesting to note that Keenan’s use of second-argument conservativity is intended as an improvement on his own earlier analysis, and that of Barwise and Cooper, which failed to predict that *only* is licensed in *there*-insertion contexts. On these earlier analyses, *only* was grouped with strong quantifiers. So the fact that it appears in *there*-insertion contexts would have to be explained independently of the strong-weak distinction, say by virtue of *only* acting not as a determiner but as an NP modifier or adverb.⁵

⁴ I note that a rather obvious test which gives the right predictions (combining elements of Barwise and Cooper (1981) and Keenan (1987)) would be checking whether GQ(exists) is non-contingent. For example, *every fish exists* is trivial, since it holds in every model, provided *exists* is true of all individuals in the model’s domain. So *every fish* is strong. But *no fish exists* is a contingent claim, so *no fish* is weak. What of *only*? The proposition *only fish exist* is contingent. Although I personally take it to be false in the real world, I cannot offer proof, and it is certainly true in some very fishy models. So again we get the right results, independently of whether we choose the Horn or GvdS analysis of *only*. I like the GQ(exists) test because it relates intuitively to the function of existential *there* sentences. For non-trivial cardinal and proportional determiners, including the putative non-conservative determiners *only* and *mostly*, the test is equivalent to Keenan’s later account. However, the equivalence breaks down at least for certain logically trivial determiners like *at least zero*.

⁵ Keenan’s earlier analysis considered the class of determiners licensed in *there*-insertion contexts to be precisely those which denoted symmetric quantifiers: *no* is one, *every* and *only* are not. In the case of conservative quantifiers (i.e. conservative in the first argument), which are the only ones Keenan considered in the earlier work, second-argument conservativity is equivalent to symmetry. But in the case of non-conservative quantifiers, this is not generally true. Barwise and Cooper’s analysis, which is equivalent to the first Keenan analysis for non-trivial quantifiers, makes a determiner strong just in case it produces non-trivial truth conditions when the restrictor and scope extensions are identical. E.g. *some unicorns are unicorns* could be true or false, but *only unicorns are unicorns* can never be false (it must be true or undefined). The most important point here is that these earlier analyses would

The strong/weak distinction is a bogus issue as regards claims that GvdS wish to advance. There is good reason to think that *there*-insertion concerns a logical property of determiners, albeit a subtle property about which we can argue. Whatever this property is, there are no grounds for expecting it to distinguish between Horn's proposal and that of GvdS. Furthermore, Keenan has now put forward an excellent candidate for the relevant property, and on his analysis Horn's *only* does just fine.

2. Does *only* license NPIs in its focus?

GvdS claim that *only* licenses negative polarity items (NPIs) in its focus, and that Horn incorrectly predicts the opposite. However, there are empirical shortcomings to GvdS's arguments. Their data consists of the following, involving NPIs *ever*, *anything* and *any*:

- (3) a. Only the students who had ever read anything about polarity passed.
- b. * All the students who passed had ever read anything about polarity.
- (4) a. Only the guests who had seen any of the suspects were questioned.
- b. * All the guests who were questioned had seen any of the suspects.

This data manifestly fails to show anything relevant to GvdS's argument. The problem is that the NPIs in (3a) and (4a) are not licensed by *only* but by *the students who*.⁶

- (5) The students who had ever read anything about polarity passed (with ease).
- (6) The guests who had seen any of the suspects were questioned (incessantly).

make the same predictions for Horn's analysis *only* as for the GvdS analysis, so they cannot possibly provide grounds for advancing one over the other.

⁶ Further conformation for my assertion that definites with restrictive relatives license NPIs comes from web searches. The following is one of hundreds of naturally occurring examples I found: "For example, the students who had ever received FARMS scored 190 points lower on the SAT total scale (about one standard deviation) than did the students who had never received this support."

Complicating matters,⁷ it is true that an interesting class of constructions with NPI uses that do occur in the focus of *only*, although not the NPIs that GvdS discuss. These are constructions denoting particularly small quantities. However, as pointed out in (Beaver and Clark, 2003), these NPIs have literal meanings when in the focus of *only*, not their idiomatic NPI meanings. For example, (7a) implies that Freda budged exactly one inch. By comparison (7b) implies not merely that Freda didn't move one inch, but that she did not make any relevant movement.

- (7) a. Freda only budged an inch.
 b. Freda did not budge an inch.

Other NPIs are generally not licensed in the focus of *only*. It is clear that *any*, as in (8a), is not licensed in the focus of *only*. Likewise, maximizers like *much* are not licensed, as shown by (9a). Even minimizing NPIs are infelicitous in the focus of *only* when the literal meaning is pragmatically odd: (10a), to the extent that it is comprehensible, implies that Freda really does own a red one cent coin.

- (8) a. * Freda only has [any money]_F.
 b. Freda does not have any money.
- (9) a. * Freda only ate [much]_F.
 b. Freda did not eat much.
- (10) a. ? Freda only has [a red cent]_F to her name.
 b. Freda does not have a red cent.

GvdS say that their analysis of *only* predicts that NPIs are licensed in the focus of *only*. Therefore they incorrectly predict that (8a), (9a) and (10a) should be felicitous. They have a choice. First, they can accept my explanation that minimizing constructions with NPI uses occur in the scope of *only* because these constructions have a non-NPI, literal, end of scale interpretation which makes them ideal foci for *only*.

⁷ Actually, the situation is even muddier than discussed in the main text above: the complement of NP *only* need not be the focus, it need only *contain* the focus, as in *only old [women]_F with dogs are allowed (not old men with dogs)*. In that case, the presence of NPIs in the complement of NP *only* need not indicate that the focus of *only* licenses NPIs, but merely that *only*'s sister phrase may contain them. I leave systematic exploration of the licensing properties of nominal phrases containing foci for another occasion.

In that case they should admit that Horn’s (standard) explanation of the NPI facts beats theirs handily. Second, they can deny my explanation regarding minimizing NPIs. In that case, they still have to explain why other NPIs are not licensed in the focus of *only*. So again, they do not seem to be in a better position than Horn as regards NPI data: they explain the NPIs that are licensed, but he explains the NPIs that are not. I remain unconvinced that the GvdS representation of *only* has any merits above the representation adopted by Horn.⁸

3. The presupposition of *only*

A charming aspect of the GvdS account of *only* is their claim that the existential presupposition found in sentences involving *only* is not triggered by *only*, but by the underlying focus structure. As it happens, I have suggested the same hypothesis myself for an array of focus sensitive particles.⁹ However, the issue is complex.

⁸ For discussion of NPI licensing by *only*, the reader is also referred to Klima (1964), Ladusaw (1979), Linebarger (1987), McCawley (1993) [p. 83], Atlas (1993, 1996), McCawley (1998) [p. 587], Herburger (2000) [p. 100-104], von Stechow (1999) and Beaver and Clark (2002a). Since writing this section, I have realized that the problems with the GvdS discussion of NPI licensing by *only* in fact reflect what I think is also a problematic discussion in the appendix of Horn (1996). Horn cited data like *only people who have ever had a debilitating illness themselves [can appreciate what an ordeal this was.]* However, the problem here, as with GvdS’ data, is that the underlying restrictive relative clause on a bare plural can itself license NPIs like *ever*: the sentence *people who have ever had a debilitating illness themselves [can appreciate what an ordeal this was]* is just as felicitous as the version with *only*. Therefore, I see no reason to view these examples as evidence that the focus of *only* licenses NPIs.

⁹ The idea is found in a research project proposal which I co-authored, and which gained limited circulation in the Dutch semantic community, but no circulation elsewhere (Groenendijk et al., 1996). The full quote from the proposal runs as follows: “Expressies zoals ‘also’, ‘even’, ‘only’, worden beschouwd als zg. ‘focus-gevoelige’ bepalingen en worden verbonden met specifieke presupposities. De hypothese is dat deze presupposities niet met deze partikels zelf verbonden zijn, maar moeten worden beschouwd als presupposities van de bijbehorende prosodie, soms in combinatie met bijkomende conversationale implicaturen. Een belangrijke observatie in dit verband [...] betreft de volgende data:

- (a) Mary only hit John.
- (b) Mary also hit John.
- (c) Mary even hit John.

Opmerkelijk is dat de zinnen (a)–(c) alle met een presuppositie verbonden zijn van de vorm ‘Mary hit *X*’, waarbij de verschillen tot uitdrukking komen in de waarden die de variabele *X* kan aannemen. Volgens de hypothese is deze presuppositie dus niet afkomstig van het partikel, maar van de basiszin ‘Mary hit John.’ ” (*Expres-*

First, it is not clear that the GvdS Background Presupposition Rule (BPR) predicts the right presupposition even in simple cases involving *only*. The BPR says that whenever focal marking divides a sentence into foreground and background, an existential presupposition is generated, essentially that there is something (or at least some salient alternative) which would satisfy the background material. Given the BPR as a source of presupposition, GvdS suggest that *only* contributes to content alone, and not to the presupposition. Thus in (11), the presence of *only* leads to the assertion that there is nobody not equal to Mary who likes chocolate, but *only* does not, in and of itself, lead to any presupposition.

(11) Only [Mary]_F likes chocolate

What, then, does the BPR predict as the presupposition of an utterance of (12)? We can obtain the presupposition just by taking the existential closure over alternatives induced by the focal element. So the presupposition predicted is: there is someone such that nobody not equal to that person likes chocolate, i.e. at most one person likes chocolate. This is not the presupposition GvdS are interested in, i.e. the presupposition that someone likes chocolate. So clearly something extra is needed in the theory to guarantee that the right presuppositions emerge. In the following I will assume that this extra ingredient is present, although it is not clear how it should be added.

A second problem is that the presuppositions associated with *only* are not, in general, merely existential. For example, (12a) presupposes not only that Jane has some rank, but that this rank (lieutenant) is not the highest rank on the relevant scale. That this inference is a presupposition is confirmed by the fact that it survives embedding, as in (12b).

(12) a. Jane is only a lieutenant.

b. Perhaps Jane is only a [lieutenant]_F.

Example (12a,b) involve a scalar use of *only*, a use which is even more prominent in the case of fellow exclusives *just* and *merely*. The

sions like ‘also’, ‘even’ ‘only’, are termed ‘focus sensitive’ and have quite specific presuppositions. The hypothesis is that these presuppositions are not attached to the particles themselves, but should be seen as presuppositions of the accompanying prosody, sometimes in combination with associated conversational implicatures. In this connection, an important observation concerns the [three data items above]. It is notable that sentences (a)–(c) all carry a presupposition of the form “Mary hit X”, in which differences between the expressions arise through the values that the variable X can take. According to the hypothesis this presupposition does not arise with the particle, but with the underlying sentence ‘Mary hit John.’)

following question then arises: should we regard scalar and non-scalar uses of *only* as special cases of a single meaning, or as independent uses. And if they are special cases of the same meaning, then should we not regard the existential presupposition in non-scalar uses as a special case of a single presupposition associated with both scalar and non-scalar *only*?

Most obviously, we might take apparently non-scalar uses of *only* as being scalar uses in which the ordering is given by ordinary logical entailment or by set inclusion.¹⁰ For example, in (11), we might consider the partial ordering induced by set inclusion over the lattice of non-empty sets of individuals. Then (11) would assert that of all sets of individuals X, any true sentence of the form “X likes chocolate” is entailed by “Mary likes chocolate.” The presupposition would thus be that some non-empty set of individuals likes chocolate, and that *Mary* denotes a non-maximal set in the lattice. While this does not buy us much for (11), it does allow a simple generalization to plural foci. In (13), the assertion would be that every true sentence of the form “X like(s) chocolate” is entailed by “Mary and John like chocolate.” Note that this improves over a naive application of the GvdS analysis using the standard DRT account of plurals (Kamp and Reyle, 1993), which would produce a meaning inconsistent with its own presupposition in the case of (13). The GvdS analysis predicts that (13) means that no X other than the sum individual *John + Mary* likes chocolate, which would imply that Mary does not like chocolate, and thus that John and Mary do not like chocolate, and thus that nobody likes chocolate, which contradicts the presupposition that somebody likes chocolate.

(13) Only [Mary and John]_F like chocolate.

What I am suggesting, then, is that *only* carries its own presuppositions, which in the special case of apparently non-scalar uses of *only* happen to coincide with presuppositions induced by focus. the question must then be: why is it that the presuppositions of focus sensitive particles, including *only*, are so often closely related to the presuppositions induced by focus alone. I certainly do not believe this is a coincidence, and I speculate the issue goes a great deal deeper than the existential presuppositions that GvdS discuss. Beaver and Clark (2002b) suggest that focus sensitive particles might typically arise as grammaticalizations which capture discourse functions that would otherwise be marked only by intonation. For example, exclusive particles like *only* encode exhaustivity, and exhaustive readings are often found

¹⁰ Analyses of *only* which unite scalar and non-scalar uses include Schwarzschild (1996) and van Rooy (2002).

in utterances carrying foci but lacking any exclusive particle. In each of the following triples, (a) involves a sentence with no focus sensitive particle, (b) expresses the same meaning but uses an explicit particle (*only*, *even* and *too*, respectively), and (c) expresses the special meaning associated with the examples that goes beyond the ordinary content that might be expected for the (a) example.¹¹

- (14) a. (Who does Mary like?) She likes [Jane]_F.
 b. She *only* likes [Jane]_F.
 c. Mary likes nobody other than Jane.
- (15) a. Mary would dance to a [dripping faucet]_F.
 b. Mary would *even* dance to a [dripping faucet]_F.
 c. On the scale of dance-able sounds, a dripping faucet is low.
- (16) a. ([Mary]_F likes donuts...) [You]_F like donuts. ([Fred]_F likes donuts. Donuts are great!)
 b. [You]_F like donuts *too*.
 c. Somebody other than the addressee likes donuts.

The relationship between the presuppositions of sentences involving focus sensitive particles and the presuppositions of focus, although not merely coincidental, does not imply that focus sensitive particles lack presuppositions. Rather, I hypothesize that the presuppositions of focus sensitive particles developed historically as these particles came to encode particular discourse functions. Their presuppositions are related to those of focus precisely because various forms of focus may also be used to mark the same discourse functions.

4. The presupposition of *not only*

Horn (1969) argued that sentences involving *only* presuppose the underlying sentence minus *only*. Horn later recanted in favor of the existential presupposition discussed in the previous section (Horn, 1996), but GvdS point out an awkward class of examples which appear to favor Horn's earlier view. The problem is that the examples in (17) clearly

¹¹ Note that the (a) cases may involve complex accents that go beyond mere focus marking, although the details go well beyond what can be discussed here.

imply that Muriel voted for Hubert. This suggests that a sentence [*only* PN VPs] presupposes not just that someone/something VPs, but that PN VPs. Unable to explain why these examples imply that Muriel voted for Hubert, rather than merely that someone voted for him, GvdS comment: “Regrettably, we don’t see how this discrepancy might be accounted for.”

- (17) a. Not only [Muriel]_F voted for Hubert. (GvdS: 50c)
 b. It’s possible that not only [Muriel]_F voted for Hubert. (GvdS: 52)

Examples like these bear on the issue discussed in the previous section, which is whether the presupposition is triggered by *only* or by the BPR: clearly if the presupposition was not existential, the BPR would not account for it. However, I do not believe that the examples in (17) pose a serious problem for the claim that the presupposition of sentences with *only* is existential. In effect, what I will now do is defend this aspect of the GvdS theory. I will suggest that *not only*, which may be idiomatic in English, should be seen as involving focus on *only*, since this is the semantic focus of the negation.

Let us first note that the distribution of *not* in NPs in full sentential clauses is highly restricted, lending credence to the view that it is found in fixed constructions, or at least has a special function.

- (18) a. ? Not the man came to see me.
 b. Not the man but the woman came to see me.
 c. The man came to see me, not the woman.

- (19) a. ? Not Jane came to see me.
 b. Not Jane but Fred came to see me.
 c. Fred came to see me, not Jane.

Also note that *not only* has the same meaning as a similar form which is clearly idiomatic, *not alone*, as in (20) from the co-founder of my employer.

- (20) The public at large, and not alone the comparatively few students who can attend the University, are the chief and ultimate beneficiaries of the foundation. [*Jane Stanford, 1902.*]

Let us consider the meaning of the *not only* construction. Crucially, while *not only A Bs* implies that A Bs, this does not necessarily follow when *not* is separated from *only*. Thus while (21a) is inconsistent, once *not* is moved into a pre-verbal position, as in (21b), consistency is restored. Note that while (21a) is bad whether stress is on *only* or *Hubert* or both, (21b) requires stress on *only*, and has optional stress on *Hubert*. The optionality of stress on *Hubert* presumably relates to the fact that it is old information, having been mentioned in the previous sentence. So it could be argued that in (21b) the whole constituent *only Hubert* is in focus.

- (21) I don't know whether Muriel likes Hubert, but...
- a. * Muriel likes not only Hubert.
 - b. Muriel does not like only Hubert.

We see similar effects when *only* is pre-verbal. (22) provides evidence that the troubling implication (here that Muriel likes Hubert) arises only when *not* and *only* form a constituent. In (22b) they clearly do not form a constituent, since the negation is cliticized onto a verbal auxiliary. We might argue by analogy with this example that the crucial property of (21a), above, and thus also of the cases which concerned GvdS (17a,b) is that *not* and *only* form a constituent.

- (22) I don't know whether Muriel likes Hubert, but...
- a. * Muriel not only likes Hubert.
 - b. Muriel doesn't only like Hubert.

What are the consequences of the conclusion that *not* and *only* form a constituent? One plausible corollary is that *only* is the focus of *not*, for why else would *not* and *only* be adjoined?

Before going on, let me pause to comment on the fact that *only* does not itself have to be accented in the *not only* construction. I do not take this to be problematic for my claim that *only* is the focus of the negation. The situation is analogous to that of *Muriel* in the second clause of (23). Although *Muriel* is clearly the focus of *only*, it is *only* which most naturally receives focal stress, leaving *Muriel* deaccented, by virtue of being in the post-nuclear tail. In the *not only* construction, some accent on *not* is required, although this is normally not the sentence's primary accent.¹²

¹² It might also be that the lack of accent on *only* in the phrase *not only* is further evidence that *not only* is idiomatic. In this case, I would argue that the meaning of

(23) Muriel likes Hubert and only Muriel likes him.

Accepting that that *only* is the focus of the negation in the *not only* construction, let us choose a theory of focus meaning and apply it in this case. Naturally, I will choose GvdS's theory, for that is the theory I am defending in this piece. On their theory, a sentence with focus presupposes that one of the focal alternatives is true. So what are the focal alternatives in case *only* is stressed? This is quite unclear, given that so few lexical items could sit in the same place as *only* in the type of example under consideration. However, I suggest that one of the alternatives to including *only* in a sentence is to omit *only*, and that in the cases under consideration the alternatives consist precisely of inclusion or omission of *only*. Thus (17a) and (17b) would presuppose that one of the two following sentences holds: (i) Muriel voted for Hubert, or (ii) only Muriel voted for Hubert. It follows from both alternatives that Muriel voted for Hubert (from the first, directly, and from the second in combination with the existential focal presupposition of the (a) and (b) sentences.) So (17a) and (17b) are correctly predicted to presuppose that Muriel voted for Hubert.¹³

Similar constructions to *not only* are found cross-linguistically, e.g. *niet alleen* in Dutch and *pas seulement* in French, and it would be worth exploring how well my analysis applies to them. However, even without further empirical work, it should be clear that the *not only* examples, far from challenging the GvdS account, in fact lend it further credence. Of course, these examples also lend credence to any other account that gives sentences with *only* an existential presupposition, provided negation is also analyzed appropriately.¹⁴

not only is simply a lexicalization of a use which is compositionally analyzable, and in which *only* bears focal stress. Note that it is *prima facie* plausible that *not only* is learned as a construction. The phrase has a high frequency, perhaps ten times that of *not every*, and at least 500 times the frequency of various forms of *kick the bucket* (based on a simple Google analysis).

¹³ I have assumed for simplicity that *even* is not considered as an alternative to *only*, although *even* could substitute for *only* in many *not only* sentences. However, given that *Even Muriel voted for Hubert* implies that Muriel voted for Hubert, adding alternatives with *even* would have no effect on the final result, i.e. that *Not only Muriel voted for Hubert* presupposes that Muriel voted for Hubert.

¹⁴ The argument in this section recalls some aspects of the analysis of Atlas (1996). He uses conversational implicatures to derive all the inferences associated with *only* which GvdS take to be presuppositional. Specifically, he invokes a scale in which *only* is opposed to *also*. One problem with applying Atlas' analysis in the case of *not only* is that *not also* is infelicitous in many of the examples cited, e.g. * *Muriel not also voted for Hubert*. As a result, Atlas' argument would require some modification.

5. Does the BPR explain the focus sensitivity of *only*?

GvdS claim that the Background Presupposition Rule “goes a long way to explaining the interpretive effects of focus.” The trouble is that the paper includes no consideration of the bulk of interpretive effects of focus discussed in the literature. For example, it does not discuss focal implicatures, the analysis of contrast, question-answer congruence, focus projection or exhaustivity effects. This of course is not surprising, given that it is only a single paper. So what do GvdS say about the single most discussed interpretive effect of focus, *focus sensitivity* — the apparent dependency of the meaning of many constructions on the position of focalized elements in the sentence? Here I must admit to confusion.

GvdS do discuss one case standardly analyzed as focus sensitivity, that of *always*. However, they never state explicitly that the BPR accounts for all cases of focus sensitivity. Furthermore, as regards the two focus sensitive particles they discuss most, *only* and *too*, they never discuss how the focus sensitivity of the particles arises. Indeed, in the case of *only* they stick exclusively to examples in which the particle is left-adjoined to its focus, a subclass of cases for which focus sensitivity is not manifest. Can the analysis of focus sensitivity which GvdS apply to *always* be applied in general? For example, can it be applied to *only*?

GvdS explain the focus sensitivity of *always* via a combination of the BPR and a useful trick called *trapping*. Trapping (van der Sandt, 1992) is a principle that constrains presuppositions by preventing accommodation which would cause a variable to become unbound. In the case of *always*, the idea is that the BPR generates presuppositions which include an event variable, and trapping forces the presupposition to be accommodated in the restrictor of *always*, and this binds the event variable. This is illustrated by (24), which (modulo a simplified treatment of names and tense) gets the initial representation in (a). Intermediate accommodation of the underlined presupposition generated by the BPR results in the representation in (b): any event of Mary helping some x is an event of Mary helping Jim.

(24) Mary always helped [Jim]_F.

- a. [[] $\langle \forall e \rangle$ [x: m helps x in e, m helps j in e]]
- b. [[x: m helps x in e] $\langle \forall e \rangle$ [m helps j in e]]

Neat! Could this technique be used in the case of *only* and other focus sensitive particles? A first observation is that the representations GvdS give for *only* do not involve an event variable. So as things stand,

if (25) were given the initial representation in (25a), there would be nothing to trap the presupposition. Thus global accommodation, as in (b) would result, which (after standard global existential closure of the event variable) has the truth conditions of “Mary helped Jim”, not those of (25). To make the trapping trick work, an event variable would have to be included in the representation of *only*, as in (c). Intermediate accommodation would then occur producing the final representation in (d).¹⁵

(25) Mary only helped [Jim]_F.

- a. $[\neg [\neg [\underline{x: m \text{ helps } x \text{ in } e}, m \text{ helps } j \text{ in } e]]]$
- b. $[x: m \text{ helps } x \text{ in } e \neg [\neg [m \text{ helps } j \text{ in } e]]]$
- c. $[\neg [e: \neg [\underline{x: m \text{ helps } x \text{ in } e}, m \text{ helps } j \text{ in } e]]]$
- d. $[\neg [e \ x: m \text{ helps } x \text{ in } e, \neg [m \text{ helps } j \text{ in } e]]]$

Unfortunately, I can see quite a few problems with this type of analysis.

First, as discussed above, one respect in which the GvdS analysis differs from Horn’s analysis (and others), is that GvdS maintain that *only* lacks an existential presupposition. On their account, the presupposition arises from the underlying focalized sentence which *only* modifies. However, if the focal presupposition is consumed in order to account for focus sensitivity, as in (25d), then the existential presupposition carried by sentences involving *only* is not accounted for. That is, either GvdS must drop their claim that *only* lacks its own presupposition, or else they have no account for the focus sensitivity of *only*.

Second, the analysis would predict that *only* and *always* behaved very similarly as regards focus sensitivity. However, in a series of articles with Brady Clark I have argued that there are substantial differences between the focus sensitivity of *only* and *always* (Beaver and Clark 2002a, 2002b, 2003). Amongst other differences, we have observed that: (i) It is possible to syntactically extract the focus of *always*, but not of *only*; (ii) the focus of *always* can be elided, but that of *only* cannot; (iii) the focus of *always* can be replaced by a leaner or weak pronoun, but that of *only* cannot; and (iv) the interpretation of *always* can be affected by any presuppositions triggered in its scope, but *only* is not affected by standard presupposition triggers such as implicatives, factives and

¹⁵ This event-based analysis of *only* breaks down as soon as plural foci are allowed, as does GvdS’s event free analysis of *only*. But this problem is not peculiar to GvdS. See Bonomi and Casalegno (1993) for an events based analysis which accounts for plurals.

telic verbs. These arguments apply cross-linguistically to quantificational adverbs and exclusives in Spanish, Italian, German, Dutch and Swedish, as well as English, but considerations of space prevent me from elaborating here. Suffice it to say that there are major hurdles in the way of an analysis of the focus sensitivity of *only* that runs precisely parallel to the analysis of the focus sensitivity *always*.

Third, the situation seems even more hopeless for *too* than for *only*. I am unable to provide a natural (or even unnatural) initial representation of a sentence involving *too* such that a combination of the BPR and the theory of presupposition accommodation would produce the representations which GvdS give. For example, they represent (26) as in (26a). But this represents a meaning in which the dependency of *too* on focus has already been computed. If GvdS believe they have a theory of association with focus, then the question is: what produces the representation in (26a)? An answer would require more than just adding an event variable somewhere and relying on trapping to do the work, for the representation of *too* does not include any good places for event variables to hide, ready to capture and transform focal presuppositions. In addition, it remains a complete mystery how the transformation of the standard existential BPR presupposition to the peculiar double-embedded presupposition GvdS propose for *too* would occur.¹⁶

- (26) Either the boss will stay away from the party, or [Barney]_F is coming too. (GvdS 61a)
- a. [u: boss(u), v: Barney(v), [not-comes(u)] ∨ [x: x≠v, comes(x), comes(v)]] (GvdS 61b)

The BPR, at present does not explain core cases of focus sensitivity like *only* and *too*. It does help explain apparent focus sensitivity of precisely those cases which Beaver and Clark (2002b) claim are not genuinely focus sensitive, for example generics, quantificational adverbs and negation. Whether the BPR can be said to go “a long way to

¹⁶ Even if GvdS are not claiming to have an account of association with focus, there is an incongruous mismatch between their account of *always* and their account of *too*. The account of *always* relies on there being an unbound event variable in the focal presupposition. If the event variable were also found in the presupposition of *too*, then strange readings would result: it would be predicted that the antecedent event was the same as the presupposition triggering event. To avoid this, GvdS would need to further transform the presupposition of *too*, adding an extra event variable, and copying information about the triggering event. For example, in (26) they would need to say that there was some e' distinct from e such that x is coming to the party in e'.

explaining the interpretive effects of focus” must remain a matter of opinion.

6. Discussion

In the above five pieces I have primarily discussed the GvdS account of *only*. In the first two, I considered their claim that their representation of *only* is superior to that of Horn (1996). As should be clear, I do not object to the GvdS representation *per se*. I would equally have accepted a representation of *only* as an elephant with the focus tattooed on the trunk, provided the presuppositions and truth conditions of elephants, thus adorned, were correct. The trouble is that GvdS claim that their analysis is right and Horn’s is wrong. I believe I have refuted the arguments GvdS presented for this claim.

In the third and fourth piece, I considered the presuppositions of sentences involving *only*. It turned out that their claim that the BPR explains the presuppositions of *only* is wanting, in part because the BPR fails to account for the presuppositions of scalar *only*. However, despite my questioning GvdS’s account of the source of the presupposition, I agreed with the basic claim that the presupposition is existential, and showed that a contrary argument from the *not only* construction fails.

Another potential objection to GvdS’s claim that the BPR explains the presuppositions of sentences with *only* was made in the fifth piece: the BPR cannot simultaneously account both for the presuppositions and the focus sensitivity of *only*. However, this point was made against the background of a wider argument that the BPR does not account very well for core cases of focus sensitivity, if indeed it was ever intended to do so.

I have said little about the GvdS analysis of *always* and *too*. The analysis of *always* has merit, and the use of trapping is quite novel. However, it is argued in Beaver and Clark (2003) that focus sensitivity of *always* should not be explained using intermediate accommodation of presuppositions, because in general this produces the wrong results. Rather, it is claimed there that apparent focus sensitivity of *always* is better understood in terms of anaphoric dependency of *always* on a domain of events salient in prior discourse. The two theories may coincide in the case of isolated single sentence examples, but isolated single sentence examples should not be the basis of a theory of presupposition and focus.

As regards *too*, it is surprising that it is even discussed in a paper which primarily claims to champion the BPR, for GvdS nowhere show

that the BPR has any significance in the interpretation of *too*. The presuppositions of *too* are not the BPR presuppositions, and it is not clear whether the BPR can help explain the mechanism by which *too* obtains focus sensitivity.¹⁷

So is the BPR right? I am wary of the BPR not because I think it false, but because I think it close to unfalsifiable. My views were cogently expressed by Rooth (1999):

But existential presupposition can not systematically be the semantics of focus.

Or so it would appear. David Beaver (p.c.) suggests a flexible interpretation strategy which has the effect of optionally trivializing an existential presupposition. In the example [John_F liked it], my discussion has assumed alternatives of the form ‘x liked it’, where x is an individual. But suppose that the notion of alternative proposition is flexible, optionally including propositions such as ‘everyone liked it’ and ‘nobody liked it’. Beaver points out that this would follow from optionally treating the focused phrase as a generalized quantifier rather than as an individual. If ‘nobody liked it’ is included as an alternative, the presupposition that some alternative is true is trivialized.

[...] We need to investigate, of course, the impact of such a revision in the notion of alternative on everything we do with alternative sets.

I should note that I (p.c.) originally proposed that focal alternatives could involve generalized quantifiers in answer to the standard objection against BPR-like claims, namely that (27) cannot presuppose that somebody shot the sheriff. Given that there is general agreement that a sentence should be amongst its own focal alternatives, it is obvious that in this case the alternatives should not be of the form [x shot the sheriff] but [GQ(shot the sheriff)], where GQ is a generalized quantifier. In that case, the BPR would predict only a trivial presupposition for (27), since the higher-order formula $\exists q q(p)$ is trivial, independently of the extension of the property p .

(27) [Nobody]_F shot the sheriff. (GvdS: 65)

I find this analysis of (27) more compelling than the GvdS claim that such examples involve *polarity* focus, but will not argue the case here. It is clear that polarity focus is itself a legitimate phenomenon,

¹⁷ For discussion and criticism of the GvdS analysis of *too*, the reader is referred to Beaver and Zeevat (2004).

and that polarity focus will also result in trivial alternatives. Indeed, following the BPR as stated, even VP focus will tend to produce only a trivial presupposition.

Where does this leave the main claim of GvdS, as enshrined in the Background Presupposition Rule? Backgrounding produces distinctive existential inferences unless: (i) the existential is already satisfied in the discourse; (ii) the existential is accommodated non-globally, or (iii) the disjunction of alternatives is trivial (because of generalized quantifier focus, polarity focus or VP focus). Given this impressive set of get-out clauses, I can only wish anyone who plans to counter-exemplify the BPR the very best of luck.

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