

The Proper Treatments of Focus Sensitivity

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1. The big picture

An expression is *focus sensitive* if its interpretation correlates with the location of focus; e.g., a perceptible pitch rise on a stressed syllable, in English or Dutch. “Altijd” (‘always’) and “alleen maar” (‘only’) are Dutch focus sensitive expressions. To illustrate their focus sensitivity, the (a) examples in (1) and (2) can be interpreted as “Whenever you have sat on something, it was your arse” whereas the (b) examples can mean “Whenever you have done something to your arse it was sitting on it”. If there is a situation in which you have sat on something besides your arse, then the (a) examples in (1) and (2) are false, but the (b) examples may be true.

- (1) a. U heeft altijd op [uw kont]_F gezeten.
“You have always sat on [your arse]_F.”
b. U heeft altijd op uw kont [gezeten]_F.
“You have always [sat]_F on your arse.”
- (2) a. U heeft alleen maar op [uw kont]_F gezeten.¹
“You have only sat on [your arse]_F.”
b. U heeft alleen maar op uw kont [gezeten]_F.
“You have only [sat]_F on your arse.”

Focus sensitivity is typically analyzed as a unitary phenomenon (Rooth, 1985; Herburger, 2000). We show here that there are at least two independent mechanisms explaining focus sensitivity, one semantic, and the other pragmatic. We will show that the alternatives quantified over by Dutch “alleen maar” and English “only” are constrained compositionally, whereas the alternatives quantified over by Dutch “altijd” and English “always” are determined entirely pragmatically. Counterparts of “alleen maar”/“only” and “altijd”/“always” in a range of Germanic and Romance languages further moti-

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1. SOURCE: Editorial, *UT-Nieuws*, 37#15, University of Twente, 5/2/2002. Focus annotation added.

vate a division between truly focus sensitive expressions and expressions for which focus sensitivity can be explained pragmatically.²

Elsewhere (Beaver and Clark, 2002) we have presented an argument in terms of English NPI licensing data. Here we present independent evidence from Dutch and English. We show that weak pronouns and gaps can associate with “altijd” but not “alleen maar”.³ Further, we demonstrate that elided elements can associate with “always” but not “only”. A unitary theory of focus sensitivity could not make these distinctions.

2. The two mechanisms

2.1. Formal proposal

Bonomi and Casalegno (1993) and Herburger (2000) analyze “only” as quantifying over events, and we follow their lead for our analysis of “alleen maar” and “only”. The meaning for “alleen maar” and “only” is given in (3). Here, *background* is a property of events, and represents the meaning of the sentence minus the contribution of those elements in the VP which are focussed — we will sometimes refer to it as the VP-defocussed sentence meaning. The predicate *npvp* (the underlying sentence meaning) is a property of events given by all the material in the sentence apart from “alleen maar”/“only”; i.e., $background \cup focus$, where *focus* is the focal material in the VP.

$$(3) \quad \text{“NP alleen maar/only VP”} \mapsto \forall e (background(e) \rightarrow npvp(e))$$

Using the classical equivalence ($a \rightarrow a \wedge b \equiv a \rightarrow b$), we arrive at (4) as the meaning of (2a): for all sitting events whose agent is the hearer, the theme is the hearer’s arse.

$$(4) \quad \text{“You have only sat on [your arse]}_F\text{”} \mapsto \\ \forall e ((sitting(e) \wedge AGENT(e) = hearer) \rightarrow THEME(e) = arse-of(hearer))$$

We also analyze “altijd” and “always” as quantifying over events. In (5), the meaning of “altijd” and “always”, *occasions* is a property of events that must be resolved contextually. The relation ρ must also be determined contextually, and maps eventualities to eventualities, for instance it could be a

2. See Beaver and Clark (in prep) for a survey (including data from Indo-European and non-Indo-European languages like Japanese and Chinese) which provides empirical support for the bifurcation of focus sensitive expressions.

3. In Beaver and Clark (MS) we discuss in detail similar evidence from English.

function which maps an eventuality e to the set of eventualities which immediately follow e and share the same agent.

- (5) “NP altijd/always VP” \mapsto
 $\forall e (\text{occasions}(e) \rightarrow \exists e' \rho(e, e') \wedge \text{npvp}(e'))$

(6) is the meaning of (1a): for some salient set of occasions, they all involve a sitting whose agent is the hearer and whose theme is the hearer’s arse.

- (6) “You have always sat on [your arse]_F” \mapsto
 $\forall e (\text{occasions}(e) \rightarrow \exists e' \rho(e, e') \wedge \text{sitting}(e') \wedge \text{AGENT}(e') = \text{hearer} \wedge \text{THEME}(e') = \text{arse-of}(\text{hearer}))$

The focus sensitivity of “altijd” and “always” is explained by the fact that non-focal material is typically under discussion, in which case the set of occasions described by non-focal material is available as an antecedent. For example, (1a) would typically be uttered when a set of occasions of the hearer sitting is under discussion, although other interpretations are possible. Data of Cohen (1999), von Fintel (1994) and Beaver and Clark (MS) shows that this link is optional, supporting the pragmatic account presented here.

2.2. Weak and strong theories of focus

Following Rooth (1992), an account of focus sensitivity of an expression is *weak* if a compositional semantic mechanism constrains the relation between focus and meaning (although pragmatic factors may also influence the meaning). An account is *strong* if the lexical semantics of the expression makes no reference to focus or focus values incorporated in the compositional semantics.

Note that both our weak account of the focus sensitivity of “alleen maar” and “only” and our strong account of “altijd” and “always” have clear antecedents in the literature, Rooth (1985) and von Fintel (1994) respectively. But there are also strong accounts of “only” (Roberts, 1996; Schwarzschild, MS), and weak accounts of “always” (Herburger, 2000).⁴

2.3. Predictions

Our proposal makes two testable predictions about “alleen maar”/“only” and “altijd”/“always”:

4. In Beaver *et al.* (MS) we debunk a popular argument against weak theories of focus sensitivity (the argument from second occurrence focus).

- (7) a. “Alleen maar” and “only” must associate with material that is intonationally prominent and in its syntactic scope. So “alleen maar” and “only” cannot associate with a phonetically reduced, completely elided, or extracted element.
- b. Since the restrictor of “altijd” and “always” is determined by pragmatic processes, and is only loosely correlated with intonation, we predict the availability of readings where “altijd” and “always” appears to associate with a phonetically reduced, completely elided, or extracted element.

We will now test these predictions by way of extraction constructions and anaphoric expressions— like weak pronouns and VP ellipsis.

3. Extraction

3.1. Data

“Alleen maar” and its cross-linguistic counterparts (e.g., English “only”) systematically fail to associate with extracted elements (Aoun and Li, 1993, 206), whereas “altijd” and its cross-linguistic counterparts (e.g., English “always”) can.⁵

For example, WH-interrogatives in Dutch suggest that the extraction of the focus of “alleen maar” is impossible, but extraction of the apparent focus of “altijd” is possible. In (8b), the adverb of quantification “altijd” apparently associates with the extracted object of “geeft” (‘give’) (interpretation (8bi)) whereas in (8a) “alleen maar” cannot associate with the extracted object of “geeft” (interpretation (8ai)).

- (8) a. Wat denk jij dat Kim alleen maar haar moeder geeft?
 “What do you think Kim only gives his mother?”
 i.* ‘What is the thing such that you believe that Kim gives that thing (and nothing else) to his mother?’
 ii. ‘What do you believe that Kim gives his mother (and nobody else)?’
- b. Wat denk jij dat Kim altijd haar moeder geeft?
 “What do you think Kim always gives his mother?”
 i. ‘What is the thing such that you believe that Kim gives that thing (and nothing else) to his mother?’

5. Aoun and Li (1993, 206) observed that the post-verbal object associated with “only” cannot undergo movement; e.g., it cannot be topicalized or WH-moved. However, they do not pursue the implications of this data for other putative focus sensitive expressions.

- ii. ‘What do you believe that Kim gives his mother (and nobody else)?’

3.2. Analysis

By definition, gaps cannot carry intonational prominence. It is crucial to our argument, and seems a natural move, that we take this a step further: gaps cannot be focus marked at any level of syntactic analysis; cf. Selkirk (1996). As a consequence of this, we predict that (8a) can only be felicitous if one of “geeft” (‘give’), “haar” (‘his’), “moeder” (‘mother’), “haar moeder” or “haar moeder geeft” is focus marked.

For example, if “haar moeder” is focus-marked, then the gapped clause in (9a) will have the underlying meaning in (9b) and the VP-defocussed meaning in (9c).

- (9) a. Kim alleen maar [haar moeder]_F t_i geeft.
 b. $npvp = \lambda e$ [RECIPIENT(e) = *mother-of(kim)* \wedge *give(e)* \wedge AGENT(e) = *kim* \wedge THEME(e) = x_i]
 c. $background = \lambda e$ [*give(e)* \wedge AGENT(e) = *kim* \wedge THEME(e) = x_i]

Plugging *background* and *npvp* into the template $\forall e$ *background(e)* \rightarrow *npvp(e)*, and reducing, we derive the meaning in (10) for (9a).

- (10) $\forall e$ (*give(e)* \wedge AGENT(e) = *kim* \wedge THEME(e) = x_i) \rightarrow RECIPIENT(e) = *mother-of(kim)*

What if some other element than “haar moeder” had been focus marked in (8a)? If “geeft” had been focus marked, we would have derived an interpretation that could be paraphrased as “What is the thing such that you think that giving was the only thing that involved it and his mother?”. Similarly, if focus is on the entire VP we arrive at the interpretation “What is the thing such that you think Kim gives his mother that thing (and does nothing else)?”.

The only remaining alternative, that of there being no focus within the scope of “alleen maar”, would produce a trivial interpretation for the embedded clause. In (11), the VP-defocussed sentence meaning is the same as the underlying sentence meaning.

- (11) $\forall e$ (RECIPIENT(e) = *mother-of(kim)* \wedge *give(e)* \wedge AGENT(e) = *kim* \wedge THEME(e) = x_i) \rightarrow (RECIPIENT(e) = *mother-of(kim)* \wedge *give(e)* \wedge AGENT(e) = *kim* \wedge THEME(e) = x_i)

This can be ruled out either on grounds of pragmatic infelicity, or on grounds of a grammatical stipulation that “alleen maar” must have a focus marked constituent in its syntactic scope.

Turning now to (8b), we examine the embedded clause “Kim altijd haar moeder t_i geeft”. The interpretation of a sentence with “altijd” is semantically underspecified, and we need to consider how to resolve the domain restriction, *occasions*, of “altijd”. Various sets of events may have been mentioned explicitly in the context, and still others are available through further reasoning.

Suppose that the only focus marked constituent in (8b) is “wat”. Then, the embedded clause “Kim altijd haar moeder t_i geeft” is completely de-stressed. Perhaps the hearer takes this as evidence that of the many salient sets of events, it is the set of events of Kim giving his mother something that is now under discussion. If so, the domain restriction of “altijd” may be set as in (12a). If the domain relation ρ is set to identity, what will result for the meaning of the embedded clause in (8b) will be as in (12b).

$$(12) \quad \begin{aligned} \text{a. } & \text{occasions} = \lambda e [give(e) \wedge \text{AGENT}(e) = kim \wedge \text{RECIPIENT}(e) = \\ & \text{mother-of}(kim)] \\ \text{b. } & \forall e (give(e) \wedge \text{AGENT}(e) = kim \wedge \text{RECIPIENT}(e) = \\ & \text{mother-of}(kim)) \rightarrow \text{THEME}(e) = x_i \end{aligned}$$

(12b) is just the meaning that would be blocked for the equivalent sentence with “alleen maar” (8a). What we must stress here is that it is not essential to our analysis that we describe in detail a convincing route by which (8b) gets the interpretation we have just described. On the contrary, we suggest that there are many routes, and many other interpretations. What is important is that this interpretation is not blocked.

Since “altijd” obtains its domain pragmatically, what we predict is that there will typically be no single dominant reading (i.e., single choice for the domain restriction) for a sentence with “altijd”, but that a number of readings should be available, whereas the range of readings available for utterances of comparable sentences with “alleen maar” should be much reduced. In other words, if you are not convinced that (8b) gets the reading where “altijd” associates with the extracted elements, that is unsurprising. The only strong claim we make about how any one person will interpret the examples at hand is that they will definitely *not* interpret (8a) as having the meaning in which “alleen maar” associates with an extracted element. The reason is simple: “alleen maar” never associates with a gap.

4. Weak pronouns

4.1. Data

“Allemaal maar” and its cross-linguistic counterparts systematically fail to

associate with weak pronouns or leaners; see Bayer (1999, 59) and Hoeksema and Zwarts (1991, 67). In contrast, “altijd” can associate with weak pronouns. In the context below, (13b), but not (13a), is an acceptable response.

Context: You had many discussions with Sandy and Kim, but what I want to know is the extent to which you talked about Fred. Of all the times you talked with them, how often was Fred the person you talked about?

- (13) a.? Ik had’t alleen maar over’m met Sandy, en ook had ik’t alleen maar over’m met Kim
 “I only discussed’im with Sandy and also only discussed’im with Kim.”
 (cannot mean: ‘I only discussed Fred (and no one else) with Sandy, and I also only discussed Fred (and no one else) with Kim.’)
- b. Ik had’t altijd over’m met Sandy, en ook had ik’t altijd over’m met Kim.
 “I always discussed’im with Sandy and also always discussed’im with Kim.”
 (can mean: ‘Whenever I discussed someone with Sandy, I discussed Fred, and whenever I discussed someone with Kim, I discussed Fred.’)

4.2. Analysis

For examples (13a) and (13b), focusing on the initial conjuncts, we index pronouns as in (14a) and (14b), respectively.

- (14) a. Ik had’t alleen maar over’m_i met Sandy.
 b. Ik had’t altijd over’m_i met Sandy.

Let us suppose that “over” (‘discuss’) has thematic roles AGENT, THEME, and COPARTICIPANT, so that the underlying meaning of (14a) and (14b) would be given by *npvp* in (15).

- (15) $npvp = \lambda e [discuss(e) \wedge AGENT(e) = speaker \wedge THEME(e) = x_i \wedge COPARTICIPANT(e) = sandy]$

Since the leaner cannot be focussed, focus must be either on the subject, or on some other element in the VP. In the case of subject focus, the VP-defocussed meaning will be identical to the underlying sentence meaning, and we derive the trivially true meaning for (14a): $\forall e npvp(e) \rightarrow npvp(e)$. We suppose that some pragmatic or grammatical mechanism blocks this derivation.

On the other hand, if the focus is in (or on) the VP c-commanded by “alleen maar”, various readings are available, none of which correspond to association with “m” (‘him’). As an illustrative example of a possible reading we predict for (14a), suppose the entire VP “over m_i met Sandy” is in focus. The VP-defocussed meaning of the sentence would then be $\text{AGENT}(e) = \textit{speaker}$, and the reading that would result would be as shown in (16a), not the impossible reading that would correspond to association with the leaner, as shown in (16b):

- (16) a. $\forall e \text{ AGENT}(e) = \textit{speaker} \rightarrow (\textit{discuss}(e) \wedge \text{THEME}(e) = x_i \wedge \text{COPARTICIPANT}(e) = \textit{sandy})$
 b. $\forall e (\text{AGENT}(e) = \textit{speaker} \wedge \textit{discuss}(e) \wedge \text{COPARTICIPANT}(e) = \textit{sandy}) \rightarrow \text{THEME}(e) = x_i$

The infelicity of (13a) with stress on “Sandy” and “Kim” is a consequence of the fact that “alleen maar” is an exhaustifier, whereby the focused item must denote the unique entity having the property ascribed to it by the remainder of the sentence. For the first conjunct of (13a), if there is focal stress on “Sandy”, then “Sandy” must be the unique person of which it is true that I discussed Fred with that person. The infelicity of (13a) arises when the listener is asked to accept that there are two unique bearers of this property.

As regards (13b), the context given earlier for the example would make salient a set of occasions when the speaker was involved in a discussion with Sandy. Thus, the quantificational domain *occasions* might be as given in (17).

- (17) $\textit{occasions} = \lambda e [\text{AGENT}(e) = \textit{speaker} \wedge \textit{discuss}(e) \wedge \text{COPARTICIPANT}(e) = \textit{sandy}]$

By identifying the domain relation ρ with the identity relation and using the template for sentences involving “altijd” ($\forall e (\textit{occasions}(e) \rightarrow \exists e' \rho(e, e') \wedge \textit{npvp}(e'))$), we derive precisely the meaning in (16b), the meaning that was unavailable for the parallel example with “alleen maar”.

In sum, weak pronoun data confirms the distinct mechanisms we have proposed explain the focus sensitivity of “alleen maar” and “altijd”.

5. VP ellipsis

5.1. Data

English VP ellipsis constructions provide us with a way to remove an element from the syntactic scope of focus sensitive expressions. Given that an element has been removed from the syntactic scope of the focus sensitive

expression, we can then examine whether the element can still be the expression's semantic focus.

"Always", but not "only", may associate with elided elements. Consider the following context and the continuations in (18a) and (18b).

Context: At the ceremony, some soldiers salute and others fire a round in the air. Some do both. What about Kim and Sandy?

- (18) a.* Kim only SALUTES because Sandy only does.
(cannot mean: 'Kim salutes (and does nothing else) because Sandy salutes (and does nothing else)')
- b. Kim always SALUTES because Sandy always does.
(can mean: 'Kim salutes at every ceremony because Sandy salutes at every ceremony.')

The VP ellipsis example in (18a) fails to have the reading "Kim salutes (and does nothing else) because Sandy salutes (and does nothing else)" while (18b) can have the association with focus reading "At every ceremony, Kim salutes because Sandy salutes".

We were able to find naturally occurring examples of VP ellipsis with English adverbs of quantification. In (19a) and (19b), "always" and "usually" are followed by an elided phrase. Both allow readings where the adverb of quantification associates with the elided phrase.

- (19) a. Oh well... it will all work out (it always does).⁶
(can mean: 'It always works out.')
- b. A bus did come, but not surprisingly it was not going through the City as it usually did.⁷
(can mean: 'Most of the time, when the bus came, it went through the City.')

However, searching for "only did" (in the British National Corpus and on the web) produced almost exclusively uses of "not only did". Out of the fifty examples we checked, we found occurrences of genuine anaphoric "did", but it was not the focus, and was followed by an adjunct phrase containing the focus.

5.2. Analysis

How can the ellipsis data we have presented be explained in terms our theoretical analysis? Let us consider the saluting vs. shooting examples in

6. SOURCE: "The Best Page on the Whole Damn Internet!" www.bestdamnpage.com/.

7. SOURCE: British National Corpus, Frances Saunders-Veness, *Oh! sister I saw the bells go down*, Lewes, East Sussex, The Book Guild Ltd, 1989, pp. 7-73.

(18a) and (18b), first as concerns “only”.

The crucial clause of (18a) is that in (20a), where we have added an anaphoric index. Let us assume that the semantics of the VP anaphor “does_i” can be represented as $\lambda x \lambda e [X_i(e) \wedge \text{AGENT}(e) = x]$. For (20a), the underlying sentence meaning will be (20b).

- (20) a. Sandy only does_i.
 b. $npvp = \lambda e [X_i(e) \wedge \text{AGENT}(e) = \text{sandy}]$

Since the VP-defocussed meaning is defined as being the underlying sentence meaning minus the contribution of focal elements in the VP, and since we assume that “does” is not a bearer of focus, *background* must be the same as *npvp*. Under these circumstances we would derive the truth-conditions in (21) for (20a), prior to anaphoric resolution of X_i :

- (21) $\forall e (X_i(e) \wedge \text{AGENT}(e) = \text{sandy}) \rightarrow (X_i(e) \wedge \text{AGENT}(e) = \text{sandy})$

However X_i is resolved, the form in (21) will be trivial. We assume this triviality is related to the infelicity of the sentence, either directly because of this triviality, or because of an underlying grammatical principle that prevents such trivial meanings from occurring.⁸

Note that although “does” was not focussed in the above examples, there are cases when “does” is focussed. In this case, it seems to be the polarity of the sentence which is being contrasted with that of some other sentence, as in the familiar routine: *Punch*: “Oh no I didn’t!”, *Policeman*: “Oh yes you did!” In that case we would assume that the focal meaning p is just the disjunction $q \vee \neg q$, so that a sentence like (20a) would receive a meaning of the form $\forall e (q(e) \vee \neg q(e)) \rightarrow q(e)$. This is logically equivalent to $\forall e q(e)$, which in the case at hand, after anaphora resolution, would express the obviously false proposition “every event is one of Sandy saluting.” This result is in line with the data, i.e. the fact that the sentence is infelicitous.

Turning to “always”, we must consider the last clause of (18b): “Sandy always does_i”. The context given was one which made salient military ceremonies at which Sandy was present, so one plausible value for the quantificational domain of “always” would be that given by in (22).

- (22) $\text{occasions} = \lambda e [\text{military-ceremony}(e) \wedge \text{present-at}(e, \text{sandy})]$

8. Jason Merchant (p.c.) comments correctly that triviality is not in general sufficient to cause infelicity. However, it is worth bearing in mind that in the case under discussion, there is no obvious pragmatic function that utterance of a tautology could take on. Thus the perceived infelicity might require an explanation at the level of discourse coherence, in terms of the lack of relevant connection between the meanings of (20a) and the prior sentence. In other cases discussed in this paper, we do not rely on triviality producing infelicity, but merely on contentful interpretations being strongly preferred over trivial ones in cases of ambiguity.

Assume that the domain relation ρ is given by the higher order constant *temporal-and-physical-part-of*. If *npvp* is resolved the same as *npvp* in (19b), and X_i is resolved to a property of events *salute*, then the truth conditions for “Sandy always does_i” end up as:

$$(23) \quad \forall e (\text{military-ceremony}(e) \wedge \text{present-at}(e, \text{sandy})) \rightarrow \\ \exists e' \text{temporal-and-physical-part-of}(e, e') \wedge X_i(e') \wedge \text{AGENT}(e') = \\ \text{sandy}$$

This seems a reasonable meaning, so we correctly predict felicity of “Sandy always does” in this context, and hence show the desired contrast between “always” and “only”.

6. Discussion

We are just starting to apply diagnostics like those discussed above to a wider range of putative focus sensitive expressions, putting each expression in one of two classes. The expressions in one of these classes lexically encode a dependency on information structure (IS), and we here term members of this class IS-sensitive expressions. In English we suppose the IS-sensitive expressions include exhaustifiers (not only “only”, but also “just”, “merely” etc.), intensifiers (e.g. “really”, “totally”, “fuckin’ ”), the scalar additive “even”, and possibly non-scalar additives like “too”, “also” and the negative additive “either”. Clearly the IS-sensitive expressions, those that should be accounted for in a weak theory of focus sensitivity, fall into a narrow range of related classes semantically and pragmatically.

The second class, including adverbs of quantification, counterfactual conditionals, generics and negation, does not lexically encode any dependency on information structure. We term members of this class IS-insensitive. We suppose that in most cases what members of this class have in common semantically is the presence of a free variable. The apparent sensitivity to focus manifested by members of this class results from the fact that what is in sentential focus is (inversely) correlated with what is discourse topical and it is discourse topics that restrict the domain of IS-insensitive expressions.

Here, then, is our first attempt at describing the two classes for English:

Sensitive	Insensitive
<i>only</i>	<i>always</i>
<i>just</i>	<i>rarely</i>
<i>merely</i>	<i>usually</i>
<i>solely</i>	<i>sometimes</i>
<i>simply</i>	<i>never</i>
<i>even</i>	<i>because</i>
<i>really</i>	<i>but</i>
<i>hardly</i>	counterfactuals
<i>fuckin'</i>	questions
<i>totally</i>	generics
<i>too (?)</i>	negation ?
<i>also (?)</i>	
<i>either (?)</i>	

For Dutch we would anticipate a similar breakdown. Thus the IS-sensitive expressions would include exhaustifiers (“alleen maar”, “slechts”, “maar”, “alleen”, “net”), the additive scalar “zelfs”, non-scalar additives (“nog”, “ook”), and intensifiers (“vooral”, “zeker”, “wel”, “zelfs”). It should be noted here that Dutch is very rich in these expressions, and is also more liberal than English in allowing combinations of particles, so that there are many more complex expressions which may be IS-sensitive on our analysis. The Dutch IS-insensitive expressions would once again include a range of quantificational adverbs (“altijd”, “gewoonlijk”, “zelden”, “nooit” etc.), generics (which are semantically close to the adverbs of quantification), as well as various truth functional or rhetorical connectives (“maar” as a conjunction, “omdat”, “als”).⁹

On the basis of this separation of the IS-sensitive expressions from expressions that do not lexically encode a dependency on information structure, we posit the following generalizations:

1. IS-sensitive expressions are discourse functional and mark the status of an assertion. More specifically they encode that one member of a salient set of alternatives, the one being asserted, is special, i.e. unique, unexpected or of high information value.
2. IS-sensitive expressions are typically cross-categorical. Note that IS-insensitive particles usually have a more restricted distribution than IS particles, and can usually not occur as NP modifiers or NP internally, whereas IS-sensitive particles can often occur as VP or NP modifiers, and in many cases can occur in other positions too.

9. Perhaps ‘niet eens’ (‘not at all’) and ‘gewoon’ (‘as usual’), which are common in colloquial Dutch and distributed similarly to the IS-sensitive particles listed above, belong in the IS class.

3. IS-sensitive expressions are superfluous. That is, the meaning of a sentence with such a particle is always a possible interpretation of the same sentence without the particle, although without the particle the interpretation is not forced. Thus exhaustive readings can be achieved without using “only”, scalar readings can be achieved without “even”, and intense readings can be achieved without “fuckin”.
4. The meaning added by an IS-sensitive particle would otherwise be conveyed by use of marked intonation. For example, exhaustification typically corresponds to a sharp pitch rise and fall (H*LL%), the meaning of “even” may be conveyed by lengthening a syllable and putting a steady rise on it followed by some wiggly boundary tones (L+H*LH% doesn’t quite capture it), and the effect of “fuckin” may be achieved by using a short sharp rising attack to the stressed syllable (again, perhaps notated as L+H*, but this doesn’t seem to capture the sharpness and possibly increased pitch range). When using a particle, the same melodies are natural, but not required — a simple pitch rise on the focussed item will suffice.
5. IS-sensitivity emerges in a late stage of grammaticalization. We do not spontaneously innovate IS-sensitive particles, which is what makes Rooth’s “toIf” (a hypothetical attitude verb for which focus is semantically significant) implausible. Historically, we may imagine a particle attaining a certain discourse function which is also conveyed by intonation, and then at a later stage, as a result of co-occurrence, the particle coming to be what we might term *in construction with focus*.
6. The line of inquiry on which we have embarked may justify a generalization that is implicit in the above discussion, and in standard terminology. When we began researching focus sensitivity, we were struck by the difficulty of finding a suitable label for the linguistic objects of our study. The term “focus sensitive particle” did not seem to be apt in the light of observations of Partee, Rooth and others that effects of focus were apparently not restricted to a single grammatical category of expression, even a category as peculiar and heterogeneous as the “particles”. Quantificational adverbs, generics, counterfactual conditionals, questions and answers and who knows how many other constructions were subject to interpretational effects comparable to those observed with respect to the canonical examples of focus sensitive particles, “only” and “even”. For a while we attempted to finesse this issue, for example by referring to “focus sensitive expressions”, “focus sensitive constructions” or “focus sensitive operators”. But what is now becoming clear is that the expression “focus sensitive particle” is highly apt, since the IS-sensitive expressions are all just that.

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