

Fragment answers and double negation in strict negative concord languages

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This talk revisits the phenomenon of negative concord (NC) as an instance of polarity sensitivity. We shed light on a new set of data regarding n-words as fragment answers to negative questions. We show that we find unexpected double negation (DN) readings for fragment n-words in view of their behavior in non-elliptical constructions. In the talk we will offer an updated version of the hypothesis that n-words are strong NPIs, making use of an alternative and exhaustification approach, an approach which is elsewhere employed to account for implicature and other polarity phenomena. This analysis allows us to maintain a uniform semantics for n-words and negative polarity items (NPIs), as well as to derive the restricted set of possible licensors of n-words. We will argue that the difference between n-words and other NPIs should be seen as the result of two parameters: (i) whether reconstruction of the polarity item is allowed, and (ii) whether the polarity item has the ability to invoke (=license) a covert negation. The result is an explanatory account of NC that allows for an easier integration of n-words in the broader typology of polarity sensitive items. We furthermore explain how DN readings arise in both non-elliptical and elliptical environments; specifically, this proposal can easily capture the new set of data involving the availability of DN readings for fragment n-words to negative questions.

Proposal: This talk revisits the phenomenon of negative concord (NC) as an instance of polarity sensitivity. We shed light on a new set of data regarding n-words as fragment answers to negative questions. We show that we find unexpected double negation (DN) readings for fragment n-words in view of their behavior in non-elliptical constructions. In the talk we will offer an updated version of the hypothesis that n-words are strong NPIs, making use of an alternative and exhaustification approach, an approach which is elsewhere employed to account for implicature and other polarity phenomena. This analysis allows us to maintain a uniform semantics for n-words and negative polarity items (NPIs), as well as to derive the restricted set of possible licensors of n-words. We will argue that the difference between n-words and other NPIs should be seen as the result of two parameters: (i) whether reconstruction of the polarity item is allowed, and (ii) whether the polarity item has the ability to invoke (=license) a covert negation. The result is an explanatory account of NC that allows for an easier integration of n-words in the broader typology of polarity sensitive items. We furthermore explain how DN readings arise in both non-elliptical and elliptical environments; specifically, this proposal can easily capture the new set of data involving the availability of DN readings for fragment n-words to negative questions.

Data: Our analysis focuses on strict NC languages (e.g. Greek, Hungarian, Romanian and Slavic languages). N-words in these languages need to be accompanied by sentential negation (SN), regardless of their position in the sentence, as shown below for Romanian:

- | | | | |
|--------|-----------------------|----|-------------------------|
| (1) a. | Nimeni *(nu) a venit. | b. | *(Nu) am văzut nimic. |
| | nobody not has come | | not have seen nothing |
| | ‘Nobody came.’ | | ‘I didn’t see anything’ |

N-words are also felicitous in fragment answers and other elliptical structures, even in the absence of sentential negation.

- | | | | | |
|--------|---------------|----------|----|--|
| (2) a. | Cine a venit? | Nimeni. | b. | Maria cam exagerează, dar Ion niciodată. |
| | who has come? | nobody | | Mary sort of exaggerates but John never |
| | ‘Who came?’ | Nobody.’ | | ‘Mary sort of exaggerates, but John never does.’ |

Goals: In this abstract we propose a unified account of n-words and NPIs (e.g. Ladusaw 1992). Such an account is tasked with having to explain the following differences: (i) n-words are licensed by a subset of the environments that license NPIs like English *any*, (ii) n-words but not NPIs do not have to occur in the scope of SN at surface structure, (iii) n-words but not NPIs can occur as fragment answers to positive questions, and (iv) n-words but not NPIs can give rise to double negation (DN) readings. Our analysis of these differences is more explanatory than previous accounts of n-words and has greater predictive power (as outlined in the outlook section).

N-words are strong NPIs: We adopt an alternative-based account of NPI licensing wherein they denote regular existential quantifiers which furthermore trigger obligatory exhaustification (cf. Krifka 1995, Lahiri 1998, Chierchia 2013). NPIs, by virtue of denoting existentials, activate subdomain alternatives. The covert exhaustifier (call it *O*), acts on these alternatives by negating all stronger ones. The result of exhaustification is non-contradictory only if the NPI occurs in the scope of a downward-entailing operator (*Op-DE*), meaning that the configuration *O*>*Op-DE*>*NPI* is felicitous whereas the configuration *O*>*NPI* gives rise to an unrescuable contradiction (in the sense of Gajewski 2002). Exhaustification comes in two varieties: weak (*O_w*) and strong (*O_s*). *O_w* applies to just truth conditions, whereas *O_s* applies to both truth-conditional and non-truth-conditional dimensions of meaning, such as presuppositions and implicatures (Gajewski 2011). The result is that

NPIs requiring strong exhaustification, i.e. strong NPIs like *in weeks* or *either*, can only occur in the scope of operators that do not bring in any presuppositions or implicatures, such as SN and *without*. Given that these are also the only operators that license n-words, we propose that n-words are, across the board, strong NPIs (see also Ladusaw 1992, Giannakidou 2006 and Chierchia 2013). This approach thus predicts the limited set of n-word licensors.

N-words can reconstruct: N-words are licensed even if they are not c-commanded by their licensor at surface structure (see (1a) above), whereas NPIs are not, (3):

- (3) a. *In weeks he hasn't visited me. b. *Anything John didn't buy.

Following e.g. Boskovic (2008), we take examples like (3) to suggest that NPIs cannot reconstruct to their base position, meaning that they cannot be interpreted in a position other than their surface position. In the current setup, this translates into a requirement that only the highest (i.e. overt) copy is relevant for exhaustification. On the other hand, we take the distribution of n-words to indicate that they can reconstruct, i.e. that they can be interpreted in their base position. Since this position is below sentential negation in both (1a) and (1b), the requirement of the n-word is satisfied, as detailed in the previous section.

N-words can license covert negation: Recall the data in (2). One possibility would be to say that in the case of a fragment n-word negation is part of the elided material (e.g., Giannakidou 2006). The problem with such an approach is that there is no proper antecedent for the negation, which violates the identity condition on ellipsis. This problem can be avoided by invoking a covert negation (e.g. Zeijlstra 2008). We claim that covert negation occurs in a high projection, and can only be licensed locally by an n-word that has undergone fronting. Since it's been argued that elliptical structures involve fronting (Merchant 2004), examples like (2) can be straightforwardly accounted for. Note, however, that this mechanism seems to be restricted to n-words occurring in elliptical structures. NPIs cannot appeal to this option, an observation that we attribute to their inability to front, (3b). Since n-words in strict NC languages must appear with SN in non-elliptical constructions, we propose that the insertion of covert negation must be a last resort strategy, governed by (4):

- (4) An element may invoke covert negation only if the material in the vP it originates from is not spelled out.

N-words can give rise to DN readings: Further support for invoking covert negation comes from the fact that in some strict NC languages, constructions involving two n-words and SN can give rise to an additional double negation (DN) reading (de Swart 2010), as illustrated in (5) for Romanian:

- (5) Nimeni nu a citit nimic. a. 'Nobody hasn't read anything.' (DN)
 nobody not has read nothing b. 'Nobody has read anything.' (NC)

Since a DN meaning amounts to two negations, for (5) to receive this reading a covert negation must be invoked (given that n-words are existential quantifiers with no negative import). This may seem to go against the condition in (4), but note that this violation falls under the umbrella of phenomena regulated by the principle of minimal compliance (Richards 1998): it's enough if one n-word satisfies the condition in (4), namely it's enough if one n-word is licensed by the overt negation. Once that happens, the second n-word can be licensed either by the overt negation expressed by SN, giving rise to the NC reading, or by CN, giving rise to the DN reading.

Fragment answers to negative questions: It has been noted that n-words can also serve as fragment answers to negative questions. To our knowledge, there is no systematic investigation of the available interpretations for such answers.

- (6) Cine nu a venit? a. Nimeni. = nobody came (*You're the first one here.*)
 'Who didn't come?' b. Nimeni. = nobody didn't come (*Everybody's here.*)

We point out that in certain languages, e.g. Romanian and Greek, these answers can be ambiguous between an NC reading, (6a), and a DN reading, (6b). The two possible continuations in (6) confirm these intuitions. That n-words can survive as fragment answers to negative questions is not surprising given that the identity condition on ellipsis guarantees the presence of negation at the level of interpretation. The NC reading comes about straightforwardly, as in (7a): the presence of SN in the question licenses its presence in the ellipsis site, which in turn can license the n-word, similarly to the non-elided version in (1a). What is surprising, however, is the fact that such answers can also receive a DN interpretation, (7b). Note that this DN reading is never available for the non-elliptical version, (1a). We argue that this interpretation comes about via the LF in (7b).

- (7) a. [Nimeni <nu a venit>] negative concord reading
 b. [CN [Nimeni <nu a venit>]] double negation reading

To understand why a DN reading is possible for a fragment n-word, but not for its non-elliptical counterpart (1a), recall the condition in (4), which says that CN can only be invoked by an n-word if the vP is not spelled out. In a sentence like (1a), this condition would be violated, since there is an overt negation available. In cases where the negation is elided (= there is no overt negation), as in (7), an n-word may invoke CN thereby conforming with the condition in (4). If it does, the CN licenses the n-word (similarly to what happens in answers to positive questions). Since SN is still underlyingly present, the overall meaning will be a DN reading ($\neg\exists\neg = \forall$).

In future work we need to understand the extent of variation within the realm of strict NC languages. In this abstract we discussed Romanian and Greek, which appear to allow for both NC and DN readings for fragment n-words to negative questions. However, not all strict NC languages allow for ambiguous readings of fragment n-words to negative questions. Polish has been claimed to only allow the DN reading to a question like (6) (de Swart 2010), whereas Serbo-Croatian and Russian (according to our informants) only allow the NC reading. More empirical investigation is needed before reaching firm conclusions on the connections between the interpretation of n-words in elliptical and non-elliptical structures.

Outlook: We argued for 2 points of variation between n-words and NPIs: ability to reconstruct and ability to invoke covert negation. A natural follow-up question is whether there is a correlation between these two parameters. We argue that there isn't, by drawing on data from other languages which illustrate that all possible configurations are attested.

For example, when NPI modals like *need* precede SN, they can only receive a narrow-

	N-words	NPI modals (<i>need</i>)	Italian <i>mai</i>	NPIs (<i>any</i>)
Reconstruction	✓	✓	✗	✗
Covert negation	✓	✗	✓	✗

scope interpretation (Iatridou & Zeijlstra 2013), suggesting that they can reconstruct, (8a). Yet they cannot occur in elliptical constructions without negation in the antecedent, as the ungrammatically of (8b) shows. This suggests that they cannot invoke CN.

- (8) a. John need not leave. b. *Mary is allowed to stay, but John need leave.

In contrast to NPI modals, Italian *mai* 'ever' can appear in elliptical constructions, like (9), indicating that it can invoke CN (Panizza & Romoli 2013). However, *mai* cannot precede its licenser, SN in (9b), suggesting that it cannot reconstruct.

- (9) a. Q: Quando vai in vacanza? A: Mai ('Q: When are you going on holiday? A: Never')
 b. *Gianni mai non ha mangiato i broccoli.

One might wonder at this point why *mai* cannot invoke CN in (9b) as well. We can blame this on the economy condition in (4) which precludes the insertion of CN since the vP is spelled-out. But this wrongly predicts that (10) should also be ruled out, when in fact it isn't.

- (10) Gianni mai ha mangiato i broccoli.
 'Gianni never ate broccoli.'

This behavior is reminiscent of what happens with n-words in non-strict NC languages: they obligatorily resort to CN in pre-verbal position, regardless of whether or not SN is present.

- (11) a. Nessuno ha mangiato i broccoli. b. Nessuno non ha mangiato i broccoli.
 'Nobody ate broccoli.' 'Everybody ate broccoli.'

The fact that CN may be appealed to in the presence of a spelled-out vP, (11a), constitutes a problem for the economy condition as we have it stated in (4). This is true of any fronted n-word:

- (12) A ninguno de ellos los olvidó. *Spanish*
 'He forgot none of them.'

The generalization seems to be that in non-strict NC languages n-words that evacuate the vP invoke CN and disregard the economy condition. We leave an explanation for this as an open problem.

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