Fragment answers and double negation in strict negative concord languages

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Fragment answers and double negation in strict negative concord languages *

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Abstract This paper 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 and show that we find unexpected double negation (DN) readings for fragment n-words in view of their behavior in non-elliptical constructions. To account for this pattern, we offer an updated version of the hypothesis that n-words are strong NPIs, making use of an alternatives-and-exhaustification approach. We 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 license a covert negation operator. The result is an explanatory account of NC and DN readings in both non-elliptical and elliptical environments, which allows for an easier integration of n-words in the broader typology of polarity sensitive items.

Keywords: negative concord, double negation, NPIs, fragment answers, ellipsis, exhaustification

1 Introduction

The goal of this paper is to discuss the interpretation of n-words in fragment answers in strict negative concord languages and to show how this data can be incorporated into an overarching theory of n-words and negative concord.

All theories of n-words address the issue of why n-words can occur as fragment answers to positive questions, and how they contribute a negative meaning. In this paper, we discuss a different set of data, involving n-words acting as fragment answers to negative questions. We use data from 8 strict negative concord languages

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and show that fragment n-words present additional readings when compared to their non-elliptical counterparts.

The challenge is to develop a theory of n-words that can explain both the unexpected patterns observed in fragment answers to negative questions, as well as the behavior of n-words elsewhere. To this end, we propose an alternative-based version of the hypothesis that n-words are strong negative polarity items (NPIs) (cf. Ladusaw 1992; Giannakidou 2000, among others). We show that the alternative-based account offers a principled explanation for the restricted distribution of n-words in negative concord languages. We further argue that the difference between n-words and other NPIs is the result of two parameters: (i) whether reconstruction of the polarity item is allowed, and (ii) whether the polarity item has the ability to license a covert negation operator. The resulting theory captures the distribution and interpretation of n-words in both non-elliptical and elliptical constructions and allows for an easier integration of n-words in the broader typology of polarity sensitive items.

The paper is organized as follows. The remainder of this section introduces and situates the data that we want to capture. In Section 2, we provide our theoretical assumptions and develop our analysis of n-words as strong NPIs. Section 3 is devoted to the interpretation of n-words as fragment answers to negative questions. In Section 4, we conclude and discuss some open issues.

1.1 Data of interest

In negative concord (NC) languages, the co-occurrence of elements that can independently convey negation gives rise to a reading with only one semantic negation, as illustrated by the following sentence from Italian.

(1) Non è venuto nessuno.
not has come nobody
'Nobody came.'

The examples below show that these elements (n-word in (2a) or sentential negation (SN) in (2b)) can independently contribute a negative component to the overall meaning.

(2) a. Nessuno è venuto.
nobody has come
'Nobody came.'
b. Gianni non è venuto.
Gianni not has come
'Gianni didn't come.'

In this paper, we will focus on so-called strict negative concord languages (e.g., Romanian, Greek, Slavic languages, Hebrew, Hungarian, Japanese), namely those languages in which n-words need to be accompanied by clause-mate sentential negation, regardless of their position in the sentence.[1] The following Romanian examples illustrate this behavior for pre-verbal (3a) and post-verbal n-words (3b):

(3) a. Nimeni *(nu) a venit.
nobody not has come
'Nobody came.'
b. *(Nu) am văzut nimic
not have seen nothing
'I didn't see anything.'

N-words in strict NC languages must co-occur with a clause-mate SN and in some languages also with *without*. The only contexts in which n-words in these languages can occur without SN are fragment answers such as (4a) and other elliptical structures, as in (4b):

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

A less often discussed fact is that n-words can also serve as fragment answers to negative questions (de Swart 2010).[2] In this paper we show that these answers have unexpected readings. Data from 8 strict NC languages (see Appendix) indicate that when n-words act as fragment answers to negative questions, they are ambiguous between a negative concord (NC) reading, (5a), with a single negation, and a double negation (DN) reading, (5b), where the two negations cancel each other out. The two possible continuations confirm the existence of these distinct readings:

(5) Cine nu a venit? Nimeni.
who not has come nobody
'Who didn't come?' 'Nobody.'
a. Nimeni. = nobody came . . . *You're the first one here.*
b. Nimeni. = nobody didn't come . . . *Everybody's here.*

1 In non-strict negative concord languages (Spanish, Italian, some dialects of French and Portuguese) pre-verbal n-words need not be accompanied by sentential negation, as shown in (2a).

2 To our knowledge, there is no systematic investigation of the available interpretations for such answers.

These data present us with a puzzle: the DN reading that we find in (5b) is never available for the non-elliptical version. The sentence in (3a), which would be the full answer to the question in (4), can only receive an NC reading, with only one negation. Our goal in this paper is to understand what is responsible for the availability of this additional reading in fragment answers to negative questions and how this fits into an overarching theory of n-words.

1.2 Previous accounts

All theories of n-words and negative concord have ways to explain why n-words in NC languages can occur as fragment answers to positive questions in the absence of any overt negative marker. On the negative quantifier approach (Zanuttini 1991; Haegeman 1995; Haegeman & Zanuttini 1996; de Swart & Sag 2002; Watanabe 2004), the reason n-words are able to occur without negation and introduce a negative meaning is because they are inherently negative. For others (e.g., Ladusaw 1992; Giannakidou 2000; Zeijlstra 2004, 2008), n-words are non-negative elements and the negative meaning comes from either a deleted or an abstract negative marker.

What about n-words as fragment answers to negative questions? According to Espinal & Tubau (2016), who discuss fragments answers to negative questions in Catalan and Spanish, these contexts support a lexical ambiguity approach to n-words. Specifically, they show that for a subset of speakers, such answers are ambiguous between NC and DN readings:

(6) ¿Quién no llevaba gafas? Nadie,
who not wore glasses nobody
'Who wasn't wearing glasses?' 'Nobody'

a. Nobody was wearing glasses. NC reading
b. Everybody was wearing glasses. DN reading

To account for this fact, they follow Herburger 2001 and assume that n-words are ambiguous between a negative quantifier interpretation and an indefinite polarity item interpretation. This, according to them, explains why we get the ambiguity in (6) as well as why in non-strict NC languages, such as Spanish and Catalan, there is an asymmetry between pre-verbal n-words, which seem to be able to introduce negation by themselves, (7a), and post-verbal n-words, which require either SN, (7b), or a pre-verbal n-word, (7c):

(7) a. Nadie (*no) vino.
nobody not came
'Nobody came.'

b. Juan *(no) vio nada.
Juan not saw nothing
'Juan didn't see anything.'
c. Nadie vio nada.
nobody saw nothing
'Nobody saw anything.'

It is not clear to us how to extend the ambiguity approach to n-words in strict NC languages, where there is no such asymmetry between pre-verbal and post-verbal n-words (see (3) above). However, as mentioned above, we do find similar ambiguities when n-words are used as fragment answers to negative questions. The question is how to account for n-words in fragment answers without appealing to an ambiguity approach à la Herburger 2001. In the next section, we will argue that an account of n-words as NPIs (e.g., Laka 1990; Ladusaw 1992; Giannakidou 2000) is best suited for n-words in strict NC languages and can capture their behavior in both non-elliptical and elliptical structures.

2 N-words as a type of NPIs

For the remainder of the paper we will adopt an analysis of n-words as strong NPIs. We will argue that unlike other NPIs, n-words can (i) reconstruct to their base position and (ii) license a covert negation operator.

2.1 N-words as strong NPIs

We propose to analyze n-words as strong NPIs, namely as those NPIs that are licensed by anti-additive operators, such as sentential negation and *without* (Zwarts 1998; Gajewski 2011).[3] This includes *yet*, *in weeks*, *at all*, *either*, *until* in English. As shown in (8), *any* but not *yet/in weeks* is licensed by *few*, suggesting that NPIs can differ from each other with respect to what operators count as appropriate licensors.

(8) a. John hasn't visited us yet/in weeks.
b. *Few colleagues have visited yet/in weeks.
c. Few colleagues have visited any small towns in Europe.

The account we propose for n-words relies on an alternatives-and-exhaustification analysis of negative polarity (cf. Krifka 1995; Lahiri 1998; Chierchia 2013). On this approach, polarity-sensitive items are (non-negative) existential quantifiers that obligatorily activate alternatives. The various kinds of NPIs can be distinguished by the types of (lexically determined) alternatives they activate, e.g., scalar, domain

3 A function f is anti-additive (AA) iff for any A and any B, $f(A \vee B) \leftrightarrow f(A) \wedge f(B)$.

and/or degree alternatives. For example, an NPI like *any* has the lexical entry in (9a), identical to that of a plain indefinite, but it also activates the set of domain alternatives in (9b), consisting of subsets of the relevant quantificational domain:

(9) a. $[\![\text{any}]\!] = \lambda P \lambda Q \exists x \in D[P(x) \wedge Q(x)]$
b. $[\![\text{any}]\!]^{ALT} = \{\lambda P \lambda Q \exists x \in D'\ [P(x) \wedge Q(x)], D' \subseteq D\}$

Active alternatives need to be incorporated into the overall meaning of the utterance. One way to implement this is by assuming that NPIs must enter into an agreement relation with a c-commanding exhaustification operator, akin to silent *only*:

(10) $\mathbf{O}(p) = p \wedge \forall q \in \mathscr{A}lt(p)\ [p \not\trianglerighteq q \rightarrow \neg q]$

According to the definition in (10), **O** applies to a proposition *p* and the set of its (propositional) alternatives ($\mathscr{A}lt$), and conveys that *p* (and its entailments) is the only true member of the set of alternatives. If the result of applying **O** is coherent, the polarity item is said to be licensed.

To see how this theory captures the restriction of NPIs to downward entailing (DE) contexts, consider the sentence in (11a), with the NPI *any*:

(11) a. *Mary read any book.
b. Assertion: $\exists x \in D[\text{book}(x) \wedge \text{read}(\text{Mary},x)]$

The assertion in (11) is identical to what we would have with a plain indefinite *a book*, i.e., an existential statement, made with respect to a contextually relevant domain of quantification D, provided in (11b). The presence of the polarity sensitive element *any* leads to the consideration of subdomain alternatives, i.e., subsets of the relevant contextual domain. Active alternatives compose via pointwise functional application, so at the sentential level we have alternatives that look as in (12):

(12) Alternatives: $\{\exists x \in D'[\text{book}(x) \wedge \text{read}(\text{Mary},x)]: D' \subseteq D\}$

The alternatives introduced by the NPI must be exhaustified, i.e., require the presence of an appropriate alternative-sensitive operator in the structure, **O**. Since the alternatives are stronger than the assertion, applying **O** leads to their exclusion. Negating these stronger alternatives, however, is equivalent to saying that for no smaller domain D' will you be able to find an *x* such that *x* is a book and Mary read it, which is in clear contradiction with the assertion. Since the obligatory exhaustification leads to an unrescuable contradiction (Gajewski 2002), the sentence is unacceptable.

(13) $\mathbf{O}([\![(11a)]\!]) = \exists x \in D[\text{book}(x) \wedge \text{read}(\text{Mary},x)]$
$\wedge\ \forall D' \subseteq D\ [\neg \exists x \in D'[\text{book}(x) \wedge \text{read}(\text{Mary},x)]]$ $\quad \perp$

Things are different in a DE-context. The alternatives are negated, as in (14b), and therefore the entailment relations reverse, with the assertion now entailing all of the alternatives. Since there are no stronger alternatives, exhaustification by **O** is vacuous and simply returns the assertion. Since no contradiction arises, the NPI is licensed:

(14) Mary didn't read any book.

a. Assertion: $\neg\exists x{\in}D[book(x) \wedge read(Mary,x)]$
b. Alternatives: $\{\neg\exists x{\in}D'[book(x) \wedge read(Mary,x)]: D'{\subseteq}D\}$
c. $\mathbf{O}([\![\text{Mary didn't read any book}]\!]) = \neg\exists x{\in}D[book(x) \wedge read(Mary,x)]$

Accordingly, the only configuration in which *any* can be licensed is **O**>Op-DE>NPI. Any other configuration, e.g., **O**>NPI or **O**>NPI>Op-DE (e.g., *Anyone didn't come*) leads to a contradiction (i.e., ungrammaticality of the NPI). Henceforth, whenever we say that the NPI is licensed by an operator, it should be understood that we assume the exhaustification operator **O** is also present underlyingly.

Furthermore, Gajewski (2011) and Chierchia (2013) argue that in the case of strong NPIs, the exhaustification operator considers both truth-conditional and non-truth-conditional dimensions of meaning (i.e., presuppositions and implicatures). The idea is that strong NPIs are exhaustified with respect to the enriched meaning of their context, which in the case of operators such as *only* or *few* is no longer DE. This is due to the fact that the presupposition of *only* and the implicature of *few* are both upward entailing, so when conjoined with the downward entailing assertive component, an overall non-monotonic environment is created, which leads to a contradiction upon exhaustification. As a result, strong NPIs can only be licensed by operators that are both non-presuppositional and end-of-scale elements, hence eliminating the possibility of having their presuppositions or implicatures getting in the way. This turns out to be the case for sentential negation and *without*, thus explaining why only these operators can license strong NPIs.

2.2 Distinguishing between n-words and strong NPIs

By adopting this alternative-based n-words-as-strong NPIs approach, the restricted set of licensors (e.g., sentential negation and *without*) is straightforwardly derived. However, as we will show below, n-words and strong NPIs do not fully align in their distribution and interpretation: (i) n-words but not NPIs can precede their licensor, (ii) n-words but not NPIs can act as fragment answers to positive questions, and (iii) n-words but not NPIs can give rise to double negation readings.

2.2.1 C-commanding differences

The following examples illustrate that n-words, unlike other NPIs, need not be c-commanded by their licensor. Consider the examples below contrasting the Romanian n-word *nimeni* 'nobody' with the NPI *vreun* 'any'.

(15) a. Nimeni nu a venit.
nobody not has come
'Nobody came.'
b. *Vreun student nu a venit.
any student not has come

The fact that NPIs need to be c-commanded by their licensor, reinforced by the unacceptability of (16a-b), suggests that NPIs cannot reconstruct (cf. Bošković 2008; Bhatt & Homer 2015).[4]

(16) a. *In weeks he hasn't visited me.
b. *Anyone didn't come.

If they could reconstruct to their base position, the NPIs would end up in the syntactic scope of negation, a position from which they could be licensed. In contrast, the distribution of n-words (cf. (15a)) indicates that they can reconstruct, i.e., be interpreted in their pre-movement position; for subject n-words, this would be the Spec*v*P position. Since this position is below sentential negation, the n-word can be said to be licensed. Schematically, we can represent the difference between n-words and NPIs as in (17), with the boxed copy being the one that is interpreted (grey material represents unpronounced material).

(17) a. [n-word [O [SN [$_{vP}$ n-word] [$_{V}P$ . . .]]]]
b. [NPI] [O [SN [$_{vP}$ NPI [$_{V}P$ . . .]]]]

2.2.2 Fragment answers to positive questions

Unlike other NPIs, n-words are felicitous in fragment answers to positive questions and in other elliptical structures, where there is no overt negation:[5]

4 There are well-known exceptions to this generalization, involving NPIs embedded in pre-verbal subjects (cf. Linebarger 1980; Uribe-Etxebarria 1995; Sauerland & Elbourne 2002). Sauerland & Elbourne argue that in such examples the phrase containing the NPI moves only at PF; since no movement occurs at LF, the NPI ends up being interpreted in the scope of negation.

(i) A doctor who knew anything about acupuncture was not available.

5 Although NPIs can act as fragment answers to negative questions; see section 3.

(18) a. Cine a venit? Nimeni.
who has come nobody
'Who came?' 'Nobody.'
b. Maria cam exagerează, dar Ion niciodată.
Mary sort of exaggerate but John never
'Mary sort of exaggerates, but John never does.'

(19) a. When did John come to visit? *In weeks.
b. *Mary visited last month, but John in weeks.

This is a well known puzzle about the distribution of n-words, and a number of different proposals have been put forward over the years. For examples, Giannakidou (2000) argues that in the case of a fragment answer, negation is part of the elided material, so as to account for the licensing of the n-word. An issue with this proposal, as argued for by Watanabe (2004), is that of recoverability; given the lack of a proper antecedent for the negation, the identity condition on ellipsis is violated.[6]

In order to account for the acceptability of n-words as fragment answers we will invoke the notion of a covert negative operator (CN). This operator has the same semantic import as sentential negation. Following Zeijlstra (2008), we take this operator to occur in a high projection, possibly a focus position, which can only be licensed locally, i.e., by an n-word that has undergone focus-movement.[7] While Zeijlstra takes CN to be the only possible licensor of n-words, we crucially depart from his proposal and claim that the insertion of CN is a last resort rescuing mechanism, limited to elliptical constructions. Specifically, we claim that this strategy is regulated by the following condition:

(20) **Condition on covert negation:** A covert negative operator can only surface if the vP is not spelled-out.

Observe that if this strategy were freely available, we should see n-words surfacing in the absence of overt sentential negation even in non-elliptical constructions, something that is not possible for n-words in strict NC languages.[8] Essentially, this condition says that if you spell out the material within the VP, then a spelled-out negative marker trumps the insertion of covert negation; in other words, you cannot appeal to covert negation if you have the space where you could have spelled out an overt negation.

6 The same argument is applicable for the construction in (18b).

7 We remain agnostic about the precise implementation of this licensing condition between n-words and CN, but see fn. 9.

8 Effectively, this is the main reason we depart from Zeijlstra's proposal, which once it assumes CN is the only licensor of n-words is unable to explain the obligatory co-occurrence of sentential negation with n-words in non-elliptical constructions.

Note that CN can only license n-words, and not other NPIs, given the unacceptability of (19a-b). Since this mechanism needs to be restricted to n-words, we can implement this as a lexical property that holds only of n-words.[9] In conclusion, we propose that an n-word fragment answer has the following underlying representation:

(21) [CN [n-word [$_{IP}$ . . .]]]

2.2.3 Double negation readings

Further support in favor of invoking covert negation comes from double negation (DN) readings. In some strict NC languages (e.g., Romanian, Greek, Czech, Polish), a DN reading can only arise in the presence of two n-words and sentential negation (cf. Merchant 2005; Fălăuş 2009; Iordăchioaia 2009; de Swart 2010). For example, a DN reading is available in (23) but not in (22), where there is only one n-word:

(22) Maria nu a citit nimic.
Maria not has read nothing.
'Mary didn't read anything.' (NC)
but not 'Mary didn't read nothing' = 'Mary read something.' (DN)

(23) Nimeni nu a citit nimic.
nobody not has read nothing
'Nobody has read anything.' (NC)
or 'Nobody hasn't read anything.' = 'Everybody read something.' (DN)

Since a DN reading amounts to two negations, in order for (23) to receive a DN reading a covert negative operator must be present underlyingly, as in (24); recall that n-words are existential quantifiers with no negative import, meaning that the only overt negative element in (23) is the sentential negation.

(24) [CN [n-word [SN [. . . [n-word]]]]] $\neg\exists\neg\exists = \forall\exists$

The fact that CN can be present even in non-elliptical constructions seems to go against the condition in (20). So the question we are faced with is the following: what is it about these constructions that makes CN possible? What seems to be different about these cases is the fact that we have multiple n-words. So the generalization that can be drawn is that CN can be present in a non-elliptical construction as long as there is at least one n-word that is licensed by an overt operator, i.e., the sentential

9 One might consider an implementation in terms of features, with CN carrying the interpretable member of the feature pair and the n-word the uninterpretable member; there can never be more covert negative operators than there are n-words, but one operator may enter into agreement with multiple n-words, through multiple agree. What is crucial for this account is a way of ensuring that the CN operator is parasitic on the presence of an n-word.

negation. Once that happens, the other n-word(s) can be licensed either by the overt negation expressed by SN, giving rise to the NC reading, or by a covert negation, giving rise to the DN reading. This explains the fact that if DN readings arise for non-elliptical sentences, it is only in the presence of two n-words.[10]

3 Back to the puzzle: Fragment answers to negative questions

It has been noted that n-words can also serve as fragment answers to negative questions (de Swart 2010). The condition in (20) restricts the insertion of CN to elliptical constructions, modulo the cases discussed in the previous section. A prediction made by the analysis, as we have laid it out, is that in elliptical structures we should find more readings than in non-elliptical structures. This prediction is borne out across all the strict NC languages that we investigated, where n-word answers can be ambiguous between an NC reading and a DN reading (see Appendix). For illustration, consider the following examples from Romanian and Greek. Below each example we provide two possible continuations to the fragment answers, the first one corresponding to the NC reading and the second to the DN reading.

(25) Cine nu a venit? Nimeni.
who not has come nobody
'Who didn't come?' 'Nobody.'

a. *You're the first one here.*
b. *Everybody's here.*

(26) Ce nu ai cumpărat? Nimic.
what not have bought nothing
'What didn't you buy?' 'Nothing.'

a. *The shop was closed.*
b. *So now we have everything we need.*

(27) Pjos den plirose to prostimo? Kanis.
who not paid the fee nobody
'Who didn't pay the fee?' 'Nobody.'

a. *We all support the "don't pay" movement.*
b. *Everybody paid.*

10 This violation of the condition in (20) could be seen as falling under the umbrella of phenomena regulated by the Principle of Minimal Compliance (Richards 1997):

(i) **Principle of Minimal Compliance**: For any dependency D that obeys constraint C, any elements that are relevant for determining whether D obeys C can be ignored for the rest of the derivation for purposes of determining whether any other dependency D' obeys C.

In other words, the ill-formed CN–n-word dependency is saved as long as a well-formed dependency (SN–n-word) is already present.

Note that this ambiguity also occurs in answers to negative questions that already contain an n-word:

(28) Cine nu a primit nimic de Crăciun? Nimeni.
who not has received nothing for Christmas? nobody
'Who didn't get anything for Christmas?' 'Nobody.'

a. *This year was hard on everyone, so we decided to do no presents.*
b. *Santa was very generous this year.*

In order to test our prediction concerning the availability of additional readings in elliptical contexts we need to examine the non-elliptical versions of these answers. As shown in (29)-(30), full, non-elliptical, answers are not ambiguous and allow only the NC reading, thus confirming our prediction.

(29) Nimeni nu a venit.
nobody not has come

a. 'Nobody came.' (NC)
b. *'Nobody didn't come.' = 'Everybody came.' (DN)

(30) Kanis den plirose to prostimo.
nobody not paid the fee

a. 'Nobody paid the fee.' (NC)
b. *'Nobody didn't pay the fee.' = 'Everybody paid.' (DN)

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. Note that NPIs can also survive as fragment answers to negative questions (den Dikken, Meinunger & Wilder 2000; Weir 2015).

(31) Q: What didn't you bring?
A: Any wine.

The NC reading thus comes about straightforwardly given that SN is present in the ellipsis site, resulting in a configuration similar to the non-elided version in (29). We assume, following Weir (2015), that fragments move only at PF, i.e., that this movement is not interpreted. The n-word is thus interpreted similarly to how it would be interpreted in the non-elided version, namely via reconstruction under negation. We only provide the LF below, not representing the n-word in its spelled-out position.

(32) [SN [n-word [. . .]]]

Next we turn to the surprising second reading available for fragment n-word

answers to negative questions, namely the DN interpretation. To understand why a DN reading is possible for a fragment n-word, (25)-(27), but not for its non-elliptical counterpart, (29)-(30), recall the condition in (20), which says that CN can only surface if the vP is not spelled out. In cases where the negation is elided, CN can enter the configuration. As before, we assume that the n-word moves only at PF, so the question is what happens at LF. There are two options in principle: the n-word could either remain in-situ, i.e., below the sentential negation as in (33a), or it could move above SN, in a focus position, as in (33b).

(33) a. [CN [SN [n-word [. . .]]]]
b. [CN [n-word [SN [. . .]]]]

However, we argue that the LF in (33a) is ruled out as the n-word is not local enough to the CN for it to be licensed; recall that we are following Zeijlstra (2004) in taking CN to occur in a high projection, possibly a focus position, which can only be licensed locally by an n-word that has undergone focus-movement. That leaves us with (33b), where the n-word is c-commanded by CN, similarly to what happens in answers to positive questions. Since SN is still present underlyingly, the overall meaning will be a DN reading, which amounts to a universal interpretation of the n-word: $\neg\exists\neg = \forall$. In the non-elliptical sentences in (29)-(30), CN cannot be invoked since condition (20) would be violated, given the presence of an overt negation (and the absence of a second n-word).

Before we conclude, we would like to mention that in our survey, outlined in the Appendix, the speakers who indicated an ambiguous interpretation pointed out that DN is the preferred reading. We speculate that this might be so because the fragment answer, which is ambiguous, competes with the non-elliptical answer, which is unambiguously interpreted as NC, hence the preference for a DN reading, the reading not shared by the two constructions.

4 Conclusions

We offered an updated version of the hypothesis that n-words are strong NPIs, which allowed for an easier integration of n-words within the broader typology of polarity-sensitive indefinites. We brought to light a new puzzle with respect to the different possible interpretations of n-words in elliptical versus non-elliptical constructions. Specifically, we showed that n-word fragment answers to negative questions acquire double negation readings that are absent from their non-elliptical counterparts. To account for the availability of this additional reading, we preserved the insight that n-words in strict NC languages can license covert negation (Ladusaw 1992; Zeijlstra 2004, among others), but argued that this is a last resort strategy, restricted to elliptical contexts. Our proposal captured the fact that fragment n-words

give rise to ambiguous interpretations (NC and DN) in response to negative questions in strict NC languages.

Our account raises questions as to the connection between focus and CN. Why is the insertion of CN tied to a focus position? More generally, what is the role of prosody and focus in the availability of DN readings, be it in elliptical or non-elliptical constructions? This question is even more prominent in non-strict NC languages (e.g., Italian, Spanish), where n-words in pre-verbal positions seem to be able to license CN even in the absence of ellipsis (see (8)). This suggests that (20) does not apply to preverbal n-words in these languages, a cross-linguistic difference that we plan to investigate in future work.

We argued for two points of variation between n-words and NPIs: (i) ability to reconstruct and (ii) ability to license covert negation. A natural follow-up question is whether there is a correlation between these two parameters. Cross-linguistic data, however, shows that all possible configurations are attested, suggesting that there is no such correlation. For example, when NPI modals like *need* precede SN, (34a), they can only receive a narrow-scope interpretation (Iatridou & Zeijlstra 2013), suggesting that they can reconstruct. However, since they cannot occur in elliptical constructions without negation in the antecedent, as shown by (34b), we conclude that these NPIs cannot license CN.

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

We thus arrive at the following theory-driven typology of negative polarity items, which can be used to explore negative polarity patterns cross-linguistically.

	Reconstruction	Covert negation
N-words	✓	✓
NPI modals (*need*)	✓	✗
Italian (*mai*)	✗	✓
NPIs (*any, in weeks*)	✗	✗

Table 1: Patterns of negative polarity[11]

11 For a detailed discussion of Italian *mai*, see Panizza & Romoli (2013).

Appendix

LANGUAGE	SN+N-WORD	SN+2 N-WORDS	FA: POS Q	FA: NEG Q
Czech 1	NC	NC	NC	DN**
Czech 2	NC	NC+DN*	NC	weird
Greek 1	NC	NC+DN*	NC	NC+DN
Greek 2	NC	NC+DN*	NC	DN
Japanese 1	NC	NC	NC	DN**
Japanese 2	NC	NC	NC	NC
Polish 1	NC	NC+DN*	NC	weird
Polish 2	NC	NC+DN*	NC	DN
Romanian 1	NC	NC+DN*	NC	NC+DN
Romanian 2	NC	NC+DN*	NC	NC+DN
Romanian 3	NC	NC+DN*	NC	NC+DN
Russian 1	NC	NC	NC	NC+DN
Russian 2	NC	NC	NC	NC+DN
Serbo-Croatian 1	NC	NC	NC	NC+DN
Serbo-Croatian 2	NC	NC	NC	NC+DN
Serbo-Croatian 3	NC	NC	NC	NC+DN
Slovenian 1	NC	NC	NC	NC+DN
Slovenian 2	NC	NC	NC	NC+DN

Table 2: Interpretation of n-words

NC+DN* - indicates that this reading is only acceptable under a particular focus marking, generally non-default prosody, or if different word order is involved.
DN** - indicates that the reading is acceptable but pragmatically odd.

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References

Bhatt, Rajesh & Vincent Homer. 2015. PPIs and movement. North East Linguistics Society (NELS) 46 handout.

Bošković, Željko. 2008. Licensing negative constituents and negative concord. In *North East Linguistics Society (NELS) 38*, Amherst, MA: GSLA Publications.

Chierchia, Gennaro. 2013. *Logic in Grammar*. Oxford University Press.

den Dikken, Marcel, André Meinunger & Chris Wilder. 2000. Pseudoclefts and ellipsis. *Studia Linguistica* 54(1). 41–89.

Espinal, M. Teresa & Susagna Tubau. 2016. Interpreting argumental n-words as answers to negative wh-questions. *Lingua* 177. 41–59. doi:http://dx.doi.org/10.1016/j.lingua.2015.12.013.

Fălăuş, Anamaria. 2009. *Polarity items and dependent indefinites in Romanian*. Nantes, France: University of Nantes PhD dissertation.

Gajewski, Jon. 2002. L-analiticity and natural language. Ms. University of Connecticut.

Gajewski, Jon. 2011. Licensing strong NPIs. *Natural Language Semantics* 19(2). 109–148. doi:10.1007/s11050-010-9067-1.

Giannakidou, Anastasia. 2000. Negative...concord? *Natural Language and Linguistic Theory* 18. 457–523. doi:10.1023/A:1006477315705.

Haegeman, Liliane. 1995. *The Syntax of Negation*. Cambridge Studies in Linguistics 75. Cambridge: Cambridge University Press.

Haegeman, Liliane & Rafaella Zanuttini. 1996. Negative concord in West Flemish. In Adriana Belletti & Luigi Rizzi (eds.), *Parameters and Functional Heads. Essays in Comparative Syntax*, 117–197. Oxford: Oxford University Press.

Herburger, Elena. 2001. The negative concord puzzle revisited. *Natural Language Semantics* 9. 241–288. doi:10.1023/A:1014205526722.

Iatridou, Sabine & Hedde H. Zeijlstra. 2013. Negation, polarity and deontic modals. *Linguistic Inquiry* 44(4). 529–568. doi:10.1162/LING_a_00138.

Iordăchioaia, Gianina. 2009. *Negative concord with negative quantifiers: A polyadic quantifier approach to Romanian negative concord*. Tübingen, Germany: University of Tübingen PhD dissertation.

Krifka, Manfred. 1995. The semantics and pragmatics of polarity items. *Linguistic Analysis* 25. 209–257.

Ladusaw, William. 1992. Expressing negation. In Chris Barker & David Dowty (eds.), *Semantics and Linguistic Theory (SALT) 2*, 237–259. Columbus, OH: The Ohio State University Department of Linguistics.

Lahiri, Utpal. 1998. Focus and negative polarity in Hindi. *Natural Language Semantics* 6. 57–123. doi:10.1023/A:1008211808250.

Laka, M. Itziar. 1990. *Negation in syntax: On the nature of functional categories*

and projections. Cambridge, MA: MIT PhD dissertation.
Linebarger, Marcia. 1980. *The grammar of negative polarity*. Cambridge, MA: MIT PhD dissertation.
Merchant, Jason. 2005. Fragments and ellipsis. *Linguistics and Philosophy* 27. 661–738. doi:10.1007/s10988-005-7378-3.
Panizza, Danielle & Jacopo Romoli. 2013. On the processing of alternatives, exhaustification and covert negation: The case of *mai*. In Anamaria Fălăuş (ed.), *Alternatives in Semantics*, 209–237. Palgrave Macmillan UK.
Richards, Norvin. 1997. *What moves where when in which language?* Cambridge, MA: MIT PhD dissertation.
Sauerland, Uli & Paul Elbourne. 2002. Total reconstruction, PF movement, and derivational order. *Linguistic Inquiry* 33(2). 283–319. doi:10.1162/002438902317406722.
de Swart, Henriëtte. 2010. *Expression and Interpretation of Negation*. Springer.
de Swart, Henriëtte & Ivan A. Sag. 2002. Negation and negative concord in romance. *Linguistics and Philosophy* 25. 373–417. doi:10.1023/A:1020823106639.
Uribe-Etxebarria, Myriam. 1995. Negative polarity item licensing, indefinites and complex predicates. In Mandy Simons & Teresa Galloway (eds.), *Semantics and Linguistic Theory (SALT) 5*, 346–361. Ithaca, NY: Comell University.
Watanabe, Akira. 2004. The genesis of negative concord: Syntax and morphology of negative doubling. *Linguistic Inquiry* 35(4). 559–612. doi:10.1162/0024389042350497.
Weir, Andrew. 2015. Fragment answers and exceptional movement under ellipsis: A PF-movement account. In Thuy Bui & Deniz Özyıldız (eds.), *North East Linguistics Society (NELS) 45*, 175–188.
Zanuttini, Rafaella. 1991. *Syntactic properties of sentential negation*. Philadelphia, PA: University of Pennsylvania PhD dissertation.
Zeijlstra, Hedde H. 2004. *Sentential negation and negative concord*. Utrecht LOT Publications: University of Amsterdam PhD dissertation.
Zeijlstra, Hedde H. 2008. Negative concord is syntactic agreement. Ms. Amsterdam.
Zwarts, Frans. 1998. Three types of polarity. In F. Hamm & E. Hinrichs (eds.), *Plural Quantification, Studies in Linguistics and Philosophy* 69, 177–238. Dordrecht: Kluwer.

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