

The interpretation of French embedded *non*: preserving scope relations

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Introduction The interpretation of embedded *non* ‘no’ (bare or followed by a clause) poses a challenge: depending on the context, embedded *non* may assert its antecedent or the negation of its antecedent (Thoms 2012; Holmberg 2013; Brasoveanu, Farkas, and Roelofsen 2013).

The problem In response to the negative question (1A), the response (1B) with embedded *non* asserts its antecedent without further negating it (**agree non** in Roelofsen and Farkas 2014’s terms). (Reading (1b) can only be conveyed through contrastively accented NON here.)

- (1) A: Est -ce qu’ Alexandre n’ a pas commencé son article du tout ?
is it that Alexandre NEG has NEG begun his paper at all

Has Alexandre not started his paper at all? ($\neg p$?)

B: Je crois que non.

I think that no

- a. [[B]] = I think that Alexandre has not started his paper at all. (agree, $\neg p$)
b. #[[B]] = I think that \neg (Alexandre has not started his paper at all). (reversal, $\neg\neg p$)

In response to (2A), the same response (1B) asserts the negation of its antecedent (R & F 2014’s **reversal non**). (Contrastive NON also does reversal here.)

- (2) A: Est -ce qu’ Alexandre a commencé son article ? B: Je crois que non.

Has Alexandre started his paper? ([p]?)

- a. #[[B]] = I think that Alexandre has started his paper. (agree, [p])
b. [[B]] = I think that \neg (Alexandre has started his paper). (reversal, $\neg p$)

The choice between reversal and agree *non* does not only depend on the presence of clausal negation in the antecedent. (3A) is negative like (1A), but the subject is the indefinite pronoun *quelqu’un* ‘someone’ which must be interpreted out of the scope of negation. Unlike (1B), the *non* response in (3B) does reverse the polarity of its antecedent (and so does accented NON).

- (3) A: Est -ce que quelqu’un n’ a pas commencé son article du tout ?

Has someone not started their paper at all? ($\exists\neg$?)

B: Je crois que non.

- a. #[[B]] = I think that someone has not started their paper at all. (agree, $\exists\neg$)
b. [[B]] = I think that \neg (someone has not started their paper at all) (reversal, $\neg\exists\neg$)

If *quelqu’un* is replaced by *personne* ‘anyone’, which must be interpreted in the scope of negation, *non* asserts its antecedent without negating it further (but accented NON reverses it).

- (4) A: Est -ce que personne n’ a commencé son article du tout ? ($\neg\exists$) B: Je crois que non.

- a. [[B]] = I think that no one has started their paper at all. (agree, $\neg\exists$)
b. #[[B]] = I think that \neg (no one has not started their paper at all) (reversal, $\neg\neg\exists$)

At Logical Form, if negation is the outermost scope-bearing operator in the prejacent of embedded *non*, *non* does not contribute (additional) semantic negation (5a), otherwise it does (5b).

- (5) (a) $\llbracket \text{que non } [_{prej} \text{ NEG } (\exists) p] \rrbracket = \neg(\exists)p$ (b) $\llbracket \text{que non } [_{prej} \exists \text{ NEG } p] \rrbracket = \neg\exists\neg p$

Analysis The idea I develop is that *non* cancels clausal negation in its scope unless doing so would change the scope relations in it. I analyze embedded *non* as the lexicalization of a unique Pol(arity) head (following Kramer and Rawlins 2010, R & F 2014) which (i) carries an interpretable feature valued negatively, and (ii) takes a full clause as its complement which is a copy of the PolP in the preceding question (Author 2018) (6a). At LF, embedded *non* is subject to 2 conditions (6b). In case of ambiguity with agree *non*, stress on *non* conveys reversal.

- (6) a. Embedded *non* is a Pol head with an interpretable polarity feature valued negatively
 Structure: $[_{CP} \text{ que } [_{PolP} \text{ non}_{[iPol:neg]} [_{prej} p]]]$
 Interpretation: $\llbracket \text{non}_{[iPol:neg]} [_{prej} p] \rrbracket = \lambda p. \neg p$
- b. Embedded *non* is subject to the following two conditions at LF:
 Identity condition: A constituent of $[\text{non XP}_{prej}]$ must be identical to $\boxed{\text{PolP}_{ant}}$
 Concord condition: LFs in which *non* establishes concord are preferred.

The meaning of (1B) is derived as follows (7): (i) the $\boxed{\text{PolP}}$ in (7A) is copied next to *non* with a uPol (7B1) or iPol (7B2). (A constituent in an ellipsis site is allowed not to be an exact copy of its antecedent as long as meaning identity holds (Johnson 2001).) (ii) *non* assigns negative value to the lower uPol (Zeijlstra 2004), (iii) since the lower Pol head is either uninterpretable (7B1), or interpretable but not valued (7B2), it is deleted, (iv) the only constituent that is identical to the PolP in the question is the (remaining) $\boxed{\text{PolP}}$ in the LF of B1/2, (v) *non* is interpreted.

- (7) A: Est-ce qu' $[_{PolP} \text{ Pol}_{[iPol:]} [_{TP} \text{ Alexandre a commencé son article }]]$?
 B1: Je crois que $[_{PolP} \text{ non}_{[iPol:neg]} [_{PolP} \text{ Pol}_{[uPol:neg]} [_{TP} \text{ Alexandre a commencé ... }]]]$.
 B2: Je crois que $[_{PolP} \text{ non}_{[iPol:neg]} [_{PolP} \text{ Pol}_{[iPol:]} [_{TP} \text{ Alexandre a commencé ... }]]]$.
 $\llbracket \text{B1/2} \rrbracket = \text{I believe that } \neg(\text{Alexandre has started his paper}).$

The meaning of (2B) is derived as follows (8): (i) the question $\boxed{\text{PolP}}$ is copied with a uPol (8B1) or iPol (8B2). In (8B1), (ii) *non* establishes concord with the lower uPol, (iii) the lower uPol is deleted being uninterpretable, (iv) the remaining PolP satisfies identity, (v) the only iPol head is interpreted. In (8B2), (ii) there is no uPol requiring valuation, (iii) no iPol is deleted, (iv) the smaller PolP satisfies identity with the PolP in A, (v) both Pol heads are interpreted and cancel each other: *non* is stressed to disambiguate which structure is intended. The derivation of (4) is exactly parallel to this one.

- (8) A: Est-ce qu' $[_{PolP} \text{ Pol}_{[iPol:neg]} [_{TP} \text{ Alexandre a commencé son article du tout }]]$?
 B1: Je crois que $[_{PolP} \text{ non}_{[iPol:neg]} [_{PolP} \text{ Pol}_{[uPol:neg]} [_{TP} \text{ Alexandre a commencé ... }]]]$.
 $\llbracket \text{B1} \rrbracket = \text{I believe that } \neg(\text{Alexandre has started his paper}).$
 B2: Je crois que $[_{PolP} \text{ NON}_{[iPol:neg]} [_{PolP} \text{ Pol}_{[iPol:neg]} [_{TP} \text{ Alexandre a commencé ... }]]]$.
 $\llbracket \text{B2} \rrbracket = \text{I believe that } \neg\neg(\text{Alexandre has started his paper}).$

The meaning of (3B) is derived as follows (9): (i) the maximal PolP is copied with a uPol (9B1) or iPol (9B2). In (9B1), (ii) *non* establishes concord with the lower uPol, (iii) the lower uPol is deleted being uninterpretable, but (iv) no PolP in 9B1 satisfies the identity condition. Therefore, to satisfy identity, concord must not occur. Only 9B2 is a satisfactory structure: (ii) the lower iPol does not need to be valued, (iii) so it is not deleted, (iv) the intermediate $\boxed{\text{PolP}}$ in B2 satisfies identity, (v) the two Pol heads are interpreted.

- (9) A: Est-ce que $\boxed{[_{PolP} \text{quelqu'un}_i [_{PolP} \text{Pol}_{[iPol:neg]} [_{TP} t_i \text{ a commencé ... du tout }]]]}$?
- *B1: ... $\boxed{[_{PolP} \text{non}_{[iPol:neg]} \boxed{[_{PolP} \text{quelqu'un}_i \boxed{[_{PolP} \text{Pol}_{[iPol:neg]} [_{TP} t_i \text{ a commencé ... du tout }]] }] }]}$.
- B2: ... $\boxed{[_{PolP} \text{non}_{[iPol:neg]} \boxed{[_{PolP} \text{quelqu'un}_i [_{PolP} \text{Pol}_{[iPol:neg]} [_{TP} t_i \text{ a commencé ... du tout }]] }] }]}$.
- $\llbracket B2 \rrbracket = \text{I believe that } \neg(\exists x \neg(x \text{ started } x\text{'s paper})) = \text{I believe that } \forall x(x \text{ started } x\text{'s paper})$.

Conclusion The proposed analysis builds on Holmberg's 2013 analysis of *no* in English, but unlike Holmberg's analysis it does not need to posit three syntactic positions where negation can be interpreted. It captures the new, to my knowledge, generalization that *non* cancels clausal negation in its scope unless doing so would change the scope relations in it.

References: Brasoveanu, A & D. Farkas & F. Roelofsen. 2013. N-words and sentential negation: evidence from polarity particles and VP ellipsis. ♦ Holmberg, A. 2013. The syntax of answers to polar questions in English and Swedish. ♦ Johnson, K. 2001. What VP ellipsis can do, and what it can't, but not why. ♦ Kramer, R. & K. Rawlins. 2010. Polarity particles and ellipsis: a somewhat crosslinguistic perspective. ♦ Roelofsen, F. & D. Farkas. 2014. Polarity particle responses as a window onto the interpretation of questions and assertions. ♦ Thoms, G. 2012. Yes and no, merge and move, ellipsis and parallelism. ♦ Zeijlstra, H. 2004. Sentential negation and negative concord.