Ambiguous Answer Particles and the Syntax of Negation

[Introduction] English and Korean are similar in that both employ two systems with regard to how negative yes/no questions (Y/N-Q) are answered: *polarity-based* system under which speakers use answer particles otherwise used for affirmative answers to neutral questions as in (1a) and (2A), and *truth-based* system under which answer particles confirm/disconfirm the negative proposition as in (1b) and (2A'). It is widely accepted that the locus of negation, i.e., IP-external Neg (1a) vs. IP-internal Neg (1b), plays a crucial role for the interpretation of answer particles (see Holmberg 2013, 2016, Kramer and Rawlins 2009, Laka 1994, Roelofsen and Farkas 2015 for competing theories). In this regard, Korean seems to challenge the importance of negation since unlike in English, the distinct interpretations of the answer particle in (2A/A') stem from a single question form in (2Q).

(1) a. Q: Is**n't** John coming, (too)?   (Holmberg 2013)
         A: Yes (John is coming)   → *polarity-based* ('yes' affirms the positive)
     b. Q: Is John **not** coming?
         A: Yes (he is not coming) → *truth-based* ('yes' affirms the negative)

(2) Q: Ku-ka   cemsim-ul   mek-ci **anh**-ass-ni?   (Park & Dubinsky 2019)
        He-NOM   lunch-ACC   eat-CI   NEG-PAST-Q
        'Didn't he eat lunch?'

     A: Ung, (mek-ess-e)   → *polarity-based*   A': Ung, (an-mek-ess-e)   → *truth-based*
        Yes, (eat-PAST-DEC)   Yes, (NEG-eat-PAST-DEC)
        'Yes, (he ate lunch)'   'Yes, (he didn't eat lunch)'

[Claim] Despite the puzzling observation, we argue that in Korean two derivationally unrelated syntactic structures are available for (2Q), often called long form negation (LFN) in Y/N-Q. We claim that the two structures differ in that LFNs can be *base-generated* either in CP position (3a) or in an IP-internal position (3b). By doing so, we will show that the distinct positions of negation determine the interpretation of the answer particles in a parallel way to English. We further pursue our argument based on the following supporting evidence: (i) unlike the internal negation, the external negation does not participate in the scope interaction with respect to NPI, quantifiers, and double negation, (ii) and multiple LFNs can appear in a limited environment.

(3) The underlying structures of (2Q)
     a. [$_{CP}$ [$_{IP}$ he ate lunch] **not**]?   → 'Didn't he eat lunch?'   *external LFN*
     b. [$_{CP}$ [$_{IP}$ he eat lunch **not**]]?   → 'Is it true that he did not eat lunch?'   *internal LFN*

[Two syntactic structures of negation] In line with Laka (1994), Holmberg (2008, 2013, 2016) argues that answer particles, as operators, assign polarity values to the polarity head/variable, which in turn determines the polarity of its complement, IP. Importantly, when the negation is located higher than the polarity head, the positive polarity feature assigned by *yes* affirms the positive proposition (4a), while it affirms the negative proposition when the negation is located lower than the polarity variable inside IP, as shown in (4b).

(4) a. [$_{Force}$ yes [$_{FocP}$ *isn't* [$_{PolP}$ [**+pol**] [$_{IP}$ John is coming]]]]   → (1a)
     b. [$_{Force}$ yes [$_{FocP}$ [$_{PolP}$ [**+pol**] [$_{IP}$ John is *not* coming]]]]   → (1b)

This analysis makes the correct prediction for Korean data under our claim that the negative question form has two syntactic structures, i.e., external negation (5a) and internal negation (5b).

(5) a. [$_{Force}$ yes [$_{FocP}$ [$_{PolP}$ [$_{IP}$ he ate lunch][**+pol**] *not*]]]   → (3A)
     b. [$_{Force}$ yes [$_{FocP}$ [$_{PolP}$ [$_{IP}$ he did *not* eat lunch] [**+pol**]]]]   → (3A')

[Supporting data] There are two main supports in favor of our argument that two syntactic structures are available for Korean LFN in Y/N-Q. First, the intonation on negation triggers a difference in the answer systems. When the negation receives a high pitch in (2Q), the positive answer can predict only the positive proposition (2A). On the other hand, when a low pitch remains on the negation, the positive answer can only predict the negative proposition (2A'). Given that syntactic and prosodic structures are tightly intertwined (Steedman 1990 among many others), the distinctive intonations on negation substantiate two different syntactic structures (see Holmberg 2012 for a similar discussion for Japanese). Another piece of evidence comes from the observation that LFNs can take different scope relations with other scope bearing elements. Thus, the negation can either be inside or outside of the scope with respect to NPI, adverb, and quantifiers as shown in (6-8), confirming the difference in the syntax of negation.

(6) John-i   amwukesto mek-ci **anh**-ass-ni?
     John-NOM anything   eat-CI   NEG-PAST-Q
     a. '*Didn't John eat anything?' (no NPI licensing)   *external LFN*
     b. 'Is it true that John did not eat anything?   *internal LFN*

(7) John-i   hangsang   swukcey-ha-ci   **anh**-ass-ni?
     John-NOM always   homework-do-CI NEG-PAST-Q
     a. 'Didn't John always do his homework?'   *external LFN*
     b. 'Is it true that it is always that John doesn't do do his homework?'   *internal LFN*

(8) John-i   motwun   chayk-ul   ilk-ci   **ahn**-ass-ni?
     John-NOM all   book-ACC   read-CI NEG-PAST-Q
     a. 'For all books x, didn't John read x?' (all > neg)   *external LFN*
     b. 'Is it true that for John read all books?' (no scope interaction)   *internal LFN*

[Multiple LFNs] The fact that multiple LFNs can appear in (9) supports our claim that the two structures are derivationally independent from each other (cf. Han et al. 2007, Hagstrom 1997). Furthermore, it is worth noting that the question can have an *internal-external* negation reading (9a) or an *internal-internal* negation reading (9b), but it is never possible to have an *external-external* negation reading (9c). This is predicted under our system under which there is only one position, i.e., head-C, available for the external negation, whereas multiple negations can appear inside IP, i.e., VP-adjoined, suggesting the different environment for the two types of LFNs.

(9) John-i   cemsim-ul mek-ci **anh**-ci **ahn**-ass-ni?
     John-NOM lunch-ACC eat-CI   NEG-CI NEG-PAST-Q
     a. 'Didn't John eat lunch?' (int-ext)
     b. 'Is it true that John ate lunch?' (int-int)
     c. '*Didn't not John eat lunch?'(ext-ext)
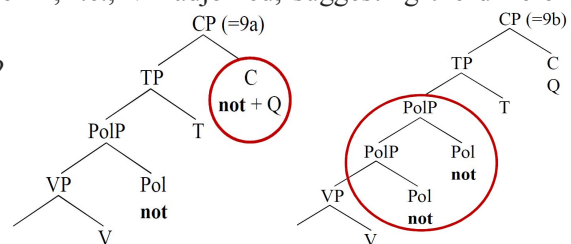
[Conclusion] The apparent issue regarding the importance of the syntax of negation between English and Korean can be settled down by assuming that the different positions of negation result in two independent syntactic structures in both languages. This in turn makes the right prediction about how the two languages behave when it comes to answers to negative *yes-no* question.

[Selected references] [1] Hagstrom, P. (1997). Scope Interactions & Phrasal Movement in Korean Negation. *Harvard Studies in Korean Ling VII.* [2] Han et al. (2007). V-raising and grammar competition in Korean: Evidence from negation and quantifier scope. *LI*. [3] Holmberg, A. (2013). The syntax of answers to polar questions in English and Swedish. *Lingua* [4] Laka, I. (1994). *On the Syntax of Negation*. Garland, New York. [5] Park, K. & Dubinsky, S. (2019). The syntax and semantics of negative questions and answers in Korean & English. 2019 *LSA*.