

Incrementality and *even*-like particles in Korean

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Poster presented in the ESSLLI 2024 workshop: “Incremental constructions within and across languages: where degrees, eventualities and discourse dynamics interact”

Korean additive particle *-to* (1a) (glossed as ‘also’) combines typically with a definite but with an indefinite like *amwu-* ‘any’ to form an NPI with negation, as in (1b) (Lee 1999: see also Lee and Horn 1994, a.o.) (but the latter can alternatively be viewed as a result of scalarity; it is equivalent to (1b) with *amwu-* replaced by *HAN salam* ‘one person’ in quantity (but not in quality, which is also implied by *amwu-*):

- (1) a. John-i Mary-to manna-ess-ta.
 John-Nom Mary-Also meet-Past-Decl
 ‘John also met Mary.’
 b. John-i amwu-to manna-cianh-ass-ta.
 John-Nom any-Also meet-Neg-Past-Decl
 ‘John didn’t meet anyone.’

Another particle *-lato* (from *-la-to*), usually glossed as ‘even’, can appear under the scope of various so-called nonveridical operators (as defined in Giannakidou 1998: see also Lee 1999; c.f. Lim 2017, a.o.). In (2) it is understood that the nonveridical operator *-tamyen* ‘if’ (glossed as a conditional marker), question, request, or modal, licenses the particle *-lato*.

- (2) John-i Mary-lato manna-n-tamyen na-nun hayngpokha-lkesi-ta.
 John-Nom Mary-even meet-Pres-Cond I-Top happy-Fut-Decl
 ‘If John meets even Mary, I will be happy.’

Note that both *-to* and *-lato* can express incrementality, as exemplified in (3a) and (3b), respectively.

- (3) a. John-i sakwa yel kay-to mek-ulswuiss-ta.
 John-Nom apple 10 Cl-Also eat-be.able.to-Decl
 ‘John can even eat 10 apples.’
 b. John-i thekkeli han kay-lato ?(te) ha-myen iki-lswuiss-ta.
 John-Nom pull-up one Cl-even more do-Cond win-be.able.to-Decl
 ‘If John even does one more pull up, he can win (the game).’

In (3a) *-to* is used as an additive particle but, as indicated by the gloss, it has the meaning similar to that of *even*. Specifically, as assumed under the rather standard semantics of *even* (Karttunen and Peters 1979, Rooth 1985, Guerzoni 2003, a.o.), (3a) carries the following two implications: (i) there is another number of apples that John can eat, such as 9, 8, 7... and (ii) 10 is the least likely amount for John to be able to eat. Given that without *-to* these implications become absent, we may say that *-to* is the trigger of these implications, and therefore in (3a) *-to* has its ‘original’

meaning of additivity, as described by (i), as well as the implication of scalarity, as described by (ii). Similarly, (3b) carries the implication that, given the numeral scale, one pull-up is the most likely for John to do, but given the commonsense knowledge that one pull-up is the smallest amount one can do, one pull-up is the least likely amount for John to win the game if he does that number of pull-ups. Note that if *te* ‘more’ is omitted that, due to the commonsense knowledge (usually one pull-up is too small to make a person doing that win the game), the sentence becomes less acceptable (if an appropriate and specific scenario may save it).

Given this kind of data, the questions we ask in this presentation is as follows:

- (i) Why can the same particle be used both as an additive particle and as a scalar particle?
- (ii) What is the relation between the incrementality and the scalarity/additivity?
- (iii) How are the (non-)monotonic/(non-)veridical operators related to the behavior of these particles?

To answer these questions, we first try to answer the second one, by proposing that the incrementality comes from the additivity given by the lexical item as well as a scale available in the context: that is, we argue that the incrementality can be understood as something is added to the end of a certain scale given in the context. In (3a), for example, the additive particle *-to* itself provides additivity, and the (indefinite) numeral *yel* ‘ten’ combined with *-to* is understood as something added to the end of the numeric scale indicating the least likeliness (from zero apple to nine apples, so to speak), resulting in the incrementality. In (3b), we propose that the particle *-lato* contains an element introducing additivity, given the previous analyses of *-lato* as an *even*-like weak NPI under nonveridical operators (Lee 1999, a.o.) or as a kind of compound containing an additive particle *-to* (Lim 2017, a.o.), and the numeral *hana* can be understood as something added to the end of the numeric scale: due to its status as an NPI (c.f. Lim 2017), it can only appear under the environment where the scale is reversed.

This proposal can be extended to answer other two questions. For (i), we argue that the additivity is the basic meaning of these two particles, but they can introduce scalarity only when there is an appropriate scale given by numerals or indefinites such as *amu* ‘any’. For (iii), we assume lexical differences between *-to* and *-lato*: *-to* behaves as a PPI (or strong NPI) whereas *-lato* behaves as an (weak) NPI (no matter whether it is inherently an NPI as argued in Lee 1999 or it is not inherently an NPI but behaves like an NPI due to its internal composition as argued in Lim 2017).

Our proposal has several implications. First, it predicts that particles like *-to* and *-lato* do not show any incrementality under the environment where a scale is difficult to be assumed, such as generics. For example, in (4), where *inkan* ‘human’ is used as a generic reference, *-to* seems to only introduce additivity:

- (4) *Inkan-to tongmwul-i-ta.*
Human-Also animal-Cop-Decl
‘A human is also an animal.’

Next, between two previous proposals on incrementality, the degree-based approach vs.

discourse-oriented approach, our proposal suggests both are required for incrementality: the scale provided by the discourse context is required, but for that scale to be used to incrementality, there must be a lexical item which provides additivity. Finally, our proposal can be considered and extended in parallel with other recent proposals (such as Liu 2023, a.o.), which try to analyze additivity and scalarity in a unified way.

Selected references

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