

On Pluralizing Event: Plural Marking Event Pluralizer *tul* in Korean

Arum Kang
The University of Chicago
arum@uchicago.edu

In contrast to what Chierchia (1998) argues, there are plurals on nominals in Korean by using plural marker *tul* corresponding to *-s/-es* in English as in (1).

- (1) a. **Haksayng-tul-i** cemsim-ul ppalli mek-ess-ta
 students-Nom lunch-Acc fast eat-Past-Dc
 ‘The students ate lunch fast.’
 b. ***Mwul-tul-i** cwucenca-eyse nemchi-ess-ta
 water-TUL-Nom pot-Loc overflow-Past-Dc
 ‘Water overflowed from the pot.’

We see in (1b) that *tul* is incompatible with a mass noun, as expected by a plural. Surprisingly, however, *tul* can also appear outside a nominal domain as shown in (2), by affixing to non-nominals: to adverbs in (2a), to verbs in (2b), and to postpositions (case markers) in (2c). We assume, following the literature, that two *tuls* in (1) and (2) are distinct, calling the former intrinsic (IPM-*tul*) and the latter extrinsic (EPM-*tul*) (Yim 2003; Kim 2004; Joh 2005 and among others). In this paper, we focus on EPM-*tul*.

- (2) a. Haksayng-tul-i cemsim-ul **ppalli-tul** mek-ess-ta
 students-Nom lunch-Acc fast-TUL eat-Past-Dc
 ‘Three students each ate lunch fast.’
 b. Haksayng-tul-i ceomsim-ul ppalli **mek-ko-tul** i-ss-ta
 students-Nom lunch-Acc fast eat-conj-TUL be-ing-Dc
 ‘Three students each are eating lunch fast.’
 c. Haksayng-tul-i pumonim-**eykey-tul** sacin-ul poyecwu-ess-ta
 students-Nom parents-Dat-TUL picture-Acc show-Past-Dc
 ‘Three students each showed a/the picture to their parents.’

The semantic functions of EPM-*tul* and IPM-*tul* are differentiated in two ways: i) in terms of what they pluralize and ii) in terms of the scope they take. IPM-*tul* pluralizes the atomic individuals to which it attaches, whereas EPM-*tul* does not. IPM-*tul* applies the domain of NP, whereas EPM-*tul* applies the domain of VP. In this paper, I am going to ask the following questions:

Puzzles

- A. What licenses EPM-*tul*?
- B. Why does EPM-*tul* show the restrictions on the elements it combines with?
- C. How can we explain the spatiotemporal ambiguity that EPM-*tul* shows?

(A) EPM-*tul* appears to be *licensed*: it can only appear in a sentence that meets certain conditions. Normally, it is considered that a local plural subject is responsible for licensing EPM-*tul* as in (3a). In some cases, however, EPM-*tul* can be licensed by the local plural object as in (3b).

- (3) a. *?Na-nun [ku haksayng-tul-i yeyppu-ta-ko] ecey-**tul** malha-ss-ta
 I-Nom [those students-Nom pretty-Conj] yesterday-TUL said-Past-Dc
 ‘I said that those students are pretty yesterday.’

b. Sensayngnim-i ai-tul-ul cip-ulo-**tul** pona-ss-ta
 teacher-Nom children-Acc house-to-TUL send-Past-Dc
 ‘A/the teacher sent all the children to (their own) house each.’

(B) Adjectives cannot combine with EPM-*tul* in (4), whereas mass nouns can (as in (5)).

- (4) *Wuri pan-e-nun **apun-tul** yehaksayng-tul-i man-ta
 our class-Loc-Top ill-TUL female students-Nom many-Dc
 ‘There are many ill female students in our class.’
- (5) haksayng-tul-i **mwul-tul-ul** masi-ess-ta
 students-Nom water-TUL-Acc drink-Past-Dc
 ‘The students each drank water.’

(C) EPM-*tul* is spatiotemporally ambiguous in (6).

- (6) John-kwa-Mary-ka ii khukhi-lul **cal-tul** me-ess-ta-ko ha-ess-ta
 John-and-Mary-Nom this cookie-Acc well-TUL eat-Past-Dc-Conj say-Past-Dc
 ‘People said that John and Mary enjoyed this cookie.’
 → a. John and Mary each enjoyed this cookie at the same place at the same time.
 → b. John and Mary each enjoyed this cookie at the different place and time.

In this paper, I am going to argue the following:

Proposals

- A. EPM-*tul* as an event pluralizer induces maximality and distributivity, and its function is to pluralize the events performed by plural agents.
- B. When EPM-*tul* attaches to mass noun, the scope of EPM-*tul* should be the whole VP-domain, thus it can add the event argument to the main verb.
- C. EPM-*tul* also functions as a pluractional marker carrying distributivity.

In this paper, I argue that EPM-*tul* functions both: as an **event pluralizer** and as a **pluractional marker**.

(A) In the sense that EPM-*tul* is licensed by plural agents and induces maximality and distributivity, its semantic function corresponds to the one that *all* has in English as in (7) and (8).

(7) $[[\text{EPM-tul}]] = \lambda P \lambda x \lambda e \forall y \exists e' [y \subseteq x \ \& \ y \in [[\text{Cov}]]^{\text{good-fitting}} \rightarrow P(e')(y) \ \& \ \text{Cul}(e) = e' \ \& \ e' < e]$

(8) a. *Haksayng-tul-i ppalli-tul meknunta* ‘the students eat fast’

b. $\exists e \forall y \exists e' [y \subseteq [[\text{the.students}']] \ \& \ y \in [[\text{Cov}]]^{\text{good-fitting}} \rightarrow \text{fast}'(e') \ \& \ \text{eat}'(e') \ \& \ \text{Ag}(e', y) \ \& \ \text{Cul}(e) = e' \ \& \ e' < e]$

(B) Based on the assumption that EPM-*tul* is an event pluralizer, we can extend its function to add event argument when EPM-*tul* combines with mass noun. Thus, the semantic analysis of EPM-*tul* regarding mass noun in (9) can be shown as follows: i) adding event argument + inducing distributivity/maximality; ii) abstract individual unit of event: ‘drinking water’; iii) formula of pluralizing event: individualized event of *drinking water* + *tul*.

(9) a. *Haksayng-tul-i mwul-tul-ul masiessta* ‘The students each drank water.’

b. $\exists e \forall y \exists e' [y \subseteq [[\text{the.students}']] \ \& \ y \in [[\text{Cov}]]^{\text{sf}} \rightarrow \lambda e'' \exists e''' [\text{drink}'(e''') \ \& \ \text{Th}(e''', \text{water}) \ \& \ e'' \bullet \Pi e'''] \ \& \ \text{drink}'(e') \ \& \ \text{Ag}(e', y) \ \& \ \text{Th}(e', \text{water}) \ \& \ \text{Cul}(e) = e' \ \& \ e'' < e' \ \& \ e''' < e' \ \& \ e' < e]$

(C) Following Lasnik (1995)'s non-overlapping condition and Yu (2003)'s E-PET (Extended Pluralized Event Theory), we assume that pluractionality is the pluralization of the event argument of a predicate. And following Wood (2007) who distinguishes event-internal pluractionals and event-external pluractionals, calling the former predicates of groups, and the latter predicates of true plural events that allow repetitions to be distributed over participants, I capture the spatio-temporal ambiguity by treating EPM-*tul* as the marker of the event-external pluractionals in (10).

- (10) a. *Haksayng-tul-i mwul-ul cal-tul masiessta* 'The students each drank water well.'
 b. $[[tul]](chal') = \lambda e [*drink(e) \& well(e) \& \forall e', e'' \subset e [-K(e') \circ K(e'')]]$

In conclusion, Korean EPM *tul* is a pluractional event pluralizer that makes use of what appears to be a plural morphology. This in effect allows for a unification of the nominal and EPM *tul*: the former pluralizes the noun whereas the latter pluralizes the VP. It will be interesting to see whether this "recycling" of the plural strategy is common across languages.

Selected References: Brisson, Christine. 2003. Plurals, All, and the Nonuniformity of Collective Predication. *Linguistics and Philosophy* 26, 129-184. Lasnik, Peter. 1995. *Plurality, Conjunction and Events*. Kluwer, Dordrecht. Wood, E. Jane. 2007. *The Semantic Typology of Pluractionality*. PhD dissertation, University of California, Berkeley. Yu, Alan. 2003. Pluractionality in Chechen. *Natural Language Semantics* 11: 289-321