

## How does distributivity induce emphasis?

Category: formal semantics

Korean *ssik* has been regarded either as a marker of distributivity (Gil, 1990; Choe, 1987), or as a multiple group forming device (McKercher & Y Kim, 2000), or as a distance-distributivity marker (Oh, 2005). However, there is also an instance where *ssik* is, seemingly, used as an emphatic marker, as in (1):

- (1) *Kim-un khi-ka 188[cm]-ssik-ina toyn-ta.*  
 Kim-TOP height-NOM 6'2"-SSIK-DD be-DECL

‘Kim is 6 feet 2 inches tall.’ (entails: Kim’s height is WAY above the speaker’s standard)

The degree delimiter *-ina* can appear (alone) in the same position as *ssik-ina* does, but *ssik-ina* can only appear in a position where its preceding NP induces a scalar implicature or is followed by degree modifiers. The sentence (2) can lead to different readings, as shown in (3).

- (2) *namca twu-myeng-i kapang sey-kay-ssik-ul wunpanha-ess-ta.*  
 man two-CL-NOM bag three-CL-SSIK-ACC carry-PST-DECL

- (3) a.  $\exists y. |y|=2 \wedge *man(y) \wedge \forall z. z \in y \wedge AT(z) \rightarrow$   
 $\exists e. \exists x. |x|=3 \wedge *bag(x) \wedge *carry(e) \wedge *Thm(e)=x \wedge *Ag(e)=z$   
 There is a pair of men  $y$ , and every atomic member of  $y$  carried three (possibly different) bags.  
 b.  $\exists e. \forall e'. e' \in e \wedge AT(e') \rightarrow$   
 $\exists y. |y|=2 \wedge *man(y) \wedge \exists x. |x|=3 \wedge *bag(x) \wedge$   
 $*carry(e') \wedge *Thm(e')=x \wedge *Ag(e')=y$   
 There is an event  $e$ , and every atomic subevent  $e'$  of  $e$  is an event of two men  
 (collectively/cumulatively) carrying three bags.

The interpretation (3a) is derived if the direct object NP distributes over the subject NP (participant distributive reading). For the reading given in (3b), the direct object NP distributes over the verb (event distributive reading). The *ssik* can be analyzed a distance-distributivity marker like English binominal *each*, given that it occurs at a distance to its NP-restriction it quantifies over, but unlike *each*, the distribution can be over individuals or events, with *ssik*. However, there are examples where distributive relation does not seem to be found when *ssik* appears.

- (4) *ai-tul-i sey-myeng-ssik hutheci-ess-ta.*  
 child-PL-NOM three-CL-SSIK disperse-PST-DECL

‘Children dispersed in groups of three.’

McKercher & Kim (2000) argue that (4) cannot be analyzed as distributivity over events or over another NP argument because they cannot be interpreted as there exist three children per dispersing event.

- (5) *na-nun chayk-ul sey-kwen-ssik ney-mwukkum sa-ss-ta.*  
 I-TOP book-ACC three-CL-SSIK four-CL buy-PST-DECL

‘I bought four sets of three books.’

Then, McKercher & Kim state that (5) shows that once groups are formed, they can be counted by use of *ssik*, and posit this as a prediction of an analysis of *ssik* as a group former, that *ssik* is not a marker of distributivity. However, Faller (2001) argues that all kinds of distributivity involve multiple groups in a sense, though not necessarily as part of the semantic representation. According to Landman (1996), plural common nouns can shift their interpretation from sums to groups. In light of Faller, I will assume that: (a) the group reading comes a distributive relation between NP-*ssik* and a sorting key; (b) the groups are defined by the aspect provided by the key; (c) the groups associated with group readings would not have to be part of the semantic representation, but would be required to exist in the model in order to meet the truth conditions.

In English, according to the New Oxford American Dictionary (2010), *every* can be used for emphasis, meaning: all possible; the utmost: e.g., *you have every reason to be disappointed*. Using *every* non-distributively amounts to more than usually emphasizing the universal part of its meaning.

- (6) (a) Kim carried every single bag.  
 (b) Kim carried EVERY bag.

(6a) and (6b) can refer to an event where all the bags were carried at the same time. I follow Tunstall (1998) and assume that this is possible because the addition of *single* in (6a) and the use of pitch accent in (6b) function to emphasize the universal part of *every*'s meaning while diminishing interest in whether the action was distributive or not. Tunstall (1998) suggests that distributivity and universality are not separate meanings for *every*, but rather two aspects of its meaning.

Universal quantifiers in Korean consist of a *wh*-word plus the universal licensing morphemes *-(i)na* (Hong, 2004), as shown in (7):

- (7) *nwu(kwu)-(i)na cal sal-ki palan-ta.*  
 who- $\forall$  well live-NMZ want-DECL

'Everyone wants to be well off.'

Chung (1996) argues that the universal licensing morpheme *-ina* is decomposable into the copula verb *-i* plus a question ending marker *-na*. This suggests an interesting connection between *ssik* and *ina* in (1). Y Kim (1991) discussed that *ssik* can have various meanings including emphasis, repetition, share formation and distribution. Kim explains the emphatic use of *ssik*, employing examples as in (8).

- (8) (a) *chaysokaps-i 3000-wen-ssik-ina han-ta.*  
 vegetable.price-NOM 3000-CL-SSIK-DD be-DECL

'The price of vegetables is 3000 won.' (entails: the price is WAY above the speaker's standard)

- (b) *chaysokaps-i 3000-wen-ssik han-ta.*  
 vegetable.price-NOM 3000-CL-SSIK be-DECL

'The price of vegetables is 3000 won each.'

However, Lee (2007) refutes this explanation because when *-ina* is omitted as in (8b), the sentence loses its emphatic interpretation. Instead, Lee argues that *ssik* can mean 'something's quantity/amount is more than the speaker's judgment,' or 'something is different from the speaker's judgment or expectation.'

Reduplication is a repetition of sound strings and there are number of properties expressed by reduplication, including augmentation, diminution, intensification, and attenuation. For example, reduplication can denote emphasis in English, e.g., *salad* 'salad' > *salad-salad* 'specifically green salad' (Kajitani, 2005). Uspensky (1972) states that augmentation and intensification are universally preferred over diminution and attenuation in reduplicative constructions. I argue that there may exist a similar phenomenon in a meaning structure. That is, an effect that is very much alike reduplication may be found when there is a pattern where the double or multiple occurrence of a meaning within a logical form is in systematic contrast with its single occurrence. For example, when two morphemes/particles with the same, or very close, denotations (as in (9)) converge, they may trigger an intensifying effect on their denotations.

- (9) a.  $\llbracket ina \rrbracket = \lambda d \lambda \delta. \delta(d) \geq standard$   
 b.  $\llbracket ssik \rrbracket = \lambda d \lambda \delta. \delta(d) \geq standard$

That is, the repetition of degree words induce cumulative readings and this is possible with the overt POS morphemes in Korean. However, this cannot account for where exactly *ssik* gets a denotation of 'something's quantity/amount is more than the speaker's judgment,' triggering augmentation.

Korean *ssik* has interesting properties. It seems that there exists a relationship between distributivity, plurality, universality, and intensification (emphasis). 'Reduplication' of meanings may be analyzed as augmentation and intensification. Further research involving precise formalization will be required to decipher this puzzle.

#### Selected reference:

- Faller, Martina. 2001. The problem of Quechua *-nka*- Distributivity vs. group forming. In Ji-yung Kim and Adam Werle, ed., *Proceedings of SULA (The Semantics of Under-Represented Languages in the Americas)*. Amherst: The Graduate Linguistics Students' Association, The University of Massachusetts.
- Gil, David. 1990. Markers of Distributivity in Japanese and Korean. In Hajime Hoji, ed., *Japanese/Korean Linguistics*. Center for the Study of Language and Information, Stanford, CA. 385-393.
- McKercher, David, and Yookyung Kim. 1999. What Does *ssik* in Korean Really Mean?. In M. Nakayama and C. J. Quinn, Jr., ed., *Japanese/Korean Linguistics*, 9, 239-252. Stanford: CSLI.
- Tunstall, Susanne. 1998. *The Interpretation of Quantifiers: Semantics & Processing*. Doctoral dissertation, University of Massachusetts Amherst.
- Lee, Eun-Ji. 2007. The category and meaning of the *ssik*. In *The Research Society of Language and Literature*, 53, 435-453.