

Forward and Backward Features Agreement: Evidence from Korean Numeral Classifier Constructions

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This paper investigates the processing of semantic features agreement between classifiers (specific vs. general) and semantically related associated NPs in two constructions (prenominal vs. postnominal); sentences in (1) and (2) provide examples. Results from a self-paced reading experiment show that semantic features agreement between classifiers and associated NPs does occur. Findings provide evidence that semantically related information originated at a specific classifier helps reactivating of preceding associated NPs in postnominal constructions.

Korean has two types of classifier constructions in the syntactic perspective: prenominal constructions (1), in which numeral classifiers precede associated NPs, and postnominal constructions (2), in which numeral classifiers follow associated NPs. Korean also has two kinds of classifiers in the semantic perspective: the specific and general classifiers. A specific classifier, such as *calwu* in (1a) and (2a), leads to an expectation of particular nouns such as, in these examples, *yenphil* ‘pencil’, whereas a general classifier, such as *kay* in (1b) and (2b), does not create an expectation of particular nouns because it can be used as a substitute for specific classifiers.

The differences in expectations generated by these types of classifiers lead to two different predictions. The first prediction is that, in the prenominal constructions (1), the reading times (RTs) for the critical region 5 (*yenphil* ‘pencil’) in (1a) will be faster than in (1b), because in (1a), after encountering the numeral classifier, information originated at the specific classifier (region 3) will facilitate the processing of upcoming associated NPs (forward agreement). The second prediction is that, in the postnominal constructions (2), the RTs for the critical region 5 (*calwu*) in (2a) will be faster than in (2b), because in (2a), information originated at the specific classifier (*calwu*) after the associated NP will help processing of the preceding associated NP more quickly than partial information originated at the general classifier (*kay*) in (2b) (backward agreement).

These predictions are tested in a region-by-region self-paced reading task with adult native speakers of Korean (n=43). The experiment employed a 2 (prenominal vs. postnominal constructions) × 2 (specific vs. general classifiers) Latin-Square designs. Experimental materials consist of 24 sets of four conditions with 48 filler sentences, and participants are asked to complete a comprehension task in order to ensure that participants attended to the stimuli.

The total average accuracy for the comprehension task is 86%. Results from the prenominal constructions show that the RTs for associated NPs (region 5) in the condition with a specific classifier are numerically slower than those in the condition with a general classifier, which is not consistent with the prediction. In postnominal constructions, the RTs for region 5 (‘three’) do not differ in both of conditions. However, there is a significant difference in region 7 (verb) after the numeral classifiers ($p < .05$). These results suggest that semantic features agreement between classifiers and associated NPs does occur in on-line processing. They show that semantically related information (e.g., specific classifier) rapidly facilitates the processing of the preceding nouns in backward agreement. The findings imply that postnominal constructions with specific classifiers are easier to comprehend. This implication is consistent with information from a corpus study (spoken words) that shows that Koreans frequently produce numeral classifiers in postnominal constructions.

A. Sample set of experimental conditions

(1) Prenominal Constructions

	Region1	Region2	Region3	Region4	Region5	Region6	Region7
a. Specific	sonyen-i boy-NOM	ecey yesterday	sey calwu-uy three CL_{specific} -GEN	kitalan nolan-sayk long yellow-color	yenphil-lul pencil-ACC	mwunpangkwa-eyse stationery store-LOC	sass-ta bought
b. General	sonyen-i boy-NOM	ecey yesterday	sey kay-uy three CL_{general} -GEN	kitalan nolan-sayk long yellow-color	yenphil-lul pencil-ACC	mwunpangkwa-eyse stationery store-LOC	sass-ta bought

‘A boy bought three long, yellow pencils at a stationery store yesterday’

(2) Postnominal Constructions

	Region1	Region2	Region3	Region4	Region5	Region6	Region7
a. Specific	sonyen-i boy-NOM	kitalan nolan-sayk long yellow-color	yenphil-lul pencil-ACC	ciwukay-wa hamkkey eraser-and together	sey calwu-lul three CL_{specific}-ACC	mwunpangkwa-eyse stationery-LOC	sass-ta bought
b. General	sonyen-i boy-NOM	kitalan nolan-sayk long yellow-color	yenphil-lul pencil-ACC	ciwukay-wa hamkkey eraser-and together	sey kay-lul three CL_{general}-ACC	mwunpangkwa-eyse stationery-LOC	sass-ta bought

‘A boy bought three long, yellow pencils with an eraser at a stationery store’