

SEO-KYOUNG HWANG

(Yonsei University, Seoul)

ELENA RUDNITSKAYA

(Institute of Oriental Studies, Moscow)

Approximation Markers in Korean: Their Properties and Use in a Classifier Construction *

Korean has two main morphemes for the approximation meaning: the Sino-Korean derivation affix *-ye* and the Native-Korean phrasal affix *-ccum*. These two morphemes are studied mostly based on their use in a classifier construction. *-ye* and *-ccum* have essentially identical grammatical function, even though their formal properties drastically differ: they belong to the derivational (*-ye*) vs. syntactic (*-ccum*, phrasal affix) grammar components. For instance, they can co-occur in one word: [rare] (*sip*) *nyen-ye-ccum* ‘around (10) years’ and coexist in one phrase with no additional change of meaning (*payk-ye kay-ccum* ‘around 100...’). In the paper, besides *-ye* and *-ccum*, other approximation constructions (with postnouns *-cengto* and *-namcis* in a classifier construction) will be also considered; *-cengto* and *-namcis* will be compared to *-ye* and *-ccum*.

Key words: *approximate, odd, derivation, affix, phrasal affix, postnoun, grammatical function, synonymous.*

1. Sino-Korean (SK) and Native Korean (NK) numerals

Derivation of SK numerals is as follows: regular morphemes *cey-* and *-ye* are used to derive ordinal numerals from the “basic” cardinal numerals and for odd-approximate numerals (beginning from 10). In the case of NK numerals, the ordinal form is derived with the affix *-ccay*; the approximate marker is *-ccum*. The derivation patterns are shown in Table 1.

Table 1

	Cardinal	Ordinal	Odd/Approximate
SK	sip ‘10’	cey-sip ‘10th’	Sip-ye ‘a little more than 10’
NK	yel ‘10’	yel-ccay ‘10th’	Yel (kwen)-ccum ‘around ten’

NK forms are illustrated in examples (1)–(2). The cardinal/“adjective” [ADJ] form is used in a classifier construction (in (1a) or as a noun modifier (see (1b)). The derivations (2a–b) illustrate two hypotheses about the relation between the cardinal and the “enumera-

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tion” forms. In (2a), the cardinal form is regarded as basic (according to A.A. Kholodovič). In (2b), the “enumeration” form is regarded as basic (following Korean authors).

- (1) a. **yel** **kwen-uy** chayk(-ul)
 10[NK] CLASS-GEN book(-ACC)
- b. chayk **yel** **kwen(-ul)**
 book 10[NK] CLASS(-ACC) “10 books”
- (2) a. **sey** ‘3.ADJ’ + **-s** → **seys** ‘3.ENUM’ [Kholodovič 1954]
 b. **seys** ‘3.ENUM’ → **sey** ‘3.ADJ’ [Nam, Ko 1985/2007]
 c. pongthwu **seys(-ul)** (*cang)
 envelope three.ENUM[NK](-ACC) (*CLASS) “3 envelopes”

In (2c), the use of the “enumeration” form (*seys* ‘three.ENUM’) is illustrated. This form has both numeral and classifier features; it can be used postpositively with a noun, and cannot co-occur with a classifier (cf. (1b)). Morphologically, the ENUM form is usually the same as the ADJ form.¹

NK numerals 1–10 have another “approximate” *-e(s)* form: *twu-e(s)* ‘about two’. [Martin 1992: 178] lists the NK *-namwun*² pattern similar to the SK *-ye* pattern in Table 1. It is used with round numbers and highly lexicalized (used mostly with *ye[I]* ‘ten’ in (3a)–(3b), which is possible only in the North Korea dialect).

- (3) a. **ye-namun**
 10[NK]-APPR.ODD[NK] “a little more than 10”
- b. **sumwu-namun**
 20[NK]-ODD “a little more than 20”

2. Features of NK and SK morphological approximate markers: -CCUM (NK), -YE (SK)

The main features of *-ccum* [NK] are (1) an “approximately” [APPR] meaning, and (2) *-ccum* can attach to a classifier (not to a numeral) in a classifier construction (4a) or to an ENUM form (4b).³

- (4) a. oleynci payk(***-ccum**) **kay-ccum**
 orange 100[SK](**-APPR**[NK]) CLASS[SK]-APPR[NK]
 “around 100 oranges”
- b. haksayng **sumwul-ccum**
 student 20.ENUM-APPR [NK]
 “around 20 students”

¹ Except for 1–4 and 20 that have different forms shown in (2a-b).

² *Nam-un* [PART; frozen] ← *nam-ta* ‘be left’.

³ Certain classifiers such as *wen* ‘won’ can be dropped:

(i) lkes-un isip-ccum-~~wen~~-ey phalli-n-ta.
 it-TOP 20[SK]-~~CLASS~~-APPR-DAT sell-PASS-PRES-DECL
 “It sells for 200,000 won” [colloq.]

-*Ccum* has grammatical properties of phrasal affixes following [Pullum, Zwicky 1983; Yoon 1995]. (5a–b) states the phrasal properties of -*ccum* when used in a classifier construction.

- (5) a. When -*ccum* attaches to a classifier, its scope is the whole Class(ifier) P(hrase):
 b. ClassP [cf. -*ccum* in (11d)]
 ClassP ccum
 [oleynci payk **kay**]

Examples (4a) and (5c) show that -*ccum* can attach to any classifier, including a SK noun *il* denoting measure/period of time in (5c):⁴

- (5) c. sipi-wel **isip-il-ccum** [SKLD]
 12[SK]-month[SK] 20[SK]-CLASS.day[SK]-APPR[NK]
 “around December 20”

Examples (6a–b) show that -*ccum* attaches not only to quantity words/expressions but also to deictics, interrogative words (6a) and denominative postpositions (6b).

- (6) a. Sicheng-i **eti-ccum** iss-ci yo?
 City_Hall where-APPR[NK] exist-SUSP PTCL.POL
 “Whereabouts is the City Hall?”
 (lit. “**What place around** is...”) [Martin 1992: 437]
 b. myechil **cen-ccum-kkaci**
 a_few_days before-APPR[NK]-UNTIL
 ku-nun kenkangha-yss-ta
 he-TOP healthy-PAST-DECL
 “Until (around) a few days ago, he was healthy”

In examples (6b–c), -*ccum* occurs in a “multiple particle constructions” [Sohn 1999: 270], in which particles can be switched (as in (6c)).

- (6) c. [Sey si-**kkaci-ccum**]/ [Sey si-**ccum-kkaci**]
 [3[NK] hour-PTCL-APPR[NK]]/ [...-APPR[NK]-PTCL]
 kitaly-e po-taka
 wait-INF see-CONV
 an o-myen ka-l they-ya
 NEG come-COND go-PART.FUT MOD-EMPH
 “I will wait till around 3 o’clock, and then, if you haven’t come, I’ll leave”
 [Martin 1992: 632]

To conclude, we have shown that the approximation morpheme -*ccum* is a phrasal affix (phrasal affixes are widely used in agglutinative languages).

The affix -*ye* [SK] (1) has a more complex than just approximate ‘approximate + odd’ [APPR.ODD] meaning, and (2) it has derivation affix features. Example (7a) and Table 1

⁴ These are Type 3 classifiers following [Martin 1992: 182]; with such classifiers, numerals often go with nouns of the same origin (i):

(i) sey hay/ sam nyen
 3.ADJ[NK] CLASS.year[NK]/ 3[SK] CLASS.year[SK] “3 years”

show that *-ye* attaches to numerals, besides 1–9. Examples (7a–b) illustrate that *-ye* can also attach to ‘period of time/measure’ nouns (Type 3 classifiers) instead of attaching to a numeral. Example (7c) shows that adnominal position is restricted to Type 3 classifiers; unlike *-ccum* in (4a), *-ye* cannot attach to other classifiers.

- (7) a. ***han-ye** sikan/ ^ʌhan **sikan-ye**
 1[NK]-APPR.ODD CLASS.hour[NK]/ 1 CLASS.hour-APPR.ODD
 “around 1 hour”
- b. **isip-ye** pwun/ isip **pwun-ye**
 20[SK]-APPR.ODD[SK] CLASS.minute/ 20 CLASS-APPR.ODD
 “around 20 minutes”
- c. *oleyn-ci payk **kay-ye**
 orange 100 CLASS[SK]-APPR.ODD[SK]
 “around 100 oranges”

To conclude, *-ye* is essentially a derivational (not phrasal) affix. Its meaning is more complex than just approximate: ‘around and a little more than’.

So far, we have shown that Korean has two morphemes for the approximation meaning. *-Ye* and *-ccum* can co-occur in one phrase (8a) with no additional shift of meaning [*-ye* before *-ccum*]. (8b) with *-ye* synonymous to (4a) with *-ccum* is possible:

- (8) a. sip **nyen-ye-ccum**
 10[SK] CLASS.year[SK]-APPR.ODD[SK]-APPR[NK]
 “approximately 10 years”
- b. Oleynci **payk-ye** kay
 orange 100[SK]-APPR.ODD[SK] CLASS[SK]
 “around 100 oranges”

Table 2 summarizes basic properties of *-ye* and *-ccum*.

Table 2

Morpheme	Origin	Meaning	Morphological status	Grammatical function
-YE	SK	APPR.ODD	Derivational affix	Identical: see (8a–b); (7a) and (4a)/(7c)
-CCUM	NK	APPR	Phrasal affix & particle	

3. Postnouns/auxiliary nouns *-CENGTO/-NAMCIS* ‘APPR.POST(.ODD)’ compared to *-YE* and *-CCUM*

In this section, we will consider first the postnouns [Martin 1992]/postpositions [Kholodovič 1954] *cengto* ‘APPR.POST’ [SK] and *namcis* ‘APPR.POST.ODD’ [NK] in a row.

Cengto is first of all a full noun that means ‘limit of a quantity’ [SKLD 2008], or degree/limit/measure’ [Martin 1992]:

- (9) a. sonhay-uy **cengto**
 damage-GEN measure “the measure of damage (caused)”
- b. enu **cengto-kkaci**
 some degree-Delim-2.until “up to a certain degree”

- c. $\sqrt{\text{Ku}}$ **cengto(-uy)/** $\sqrt{\text{Ku-ccum(-uy)}}$
 $\sqrt{\text{that}}$ measure(-GEN)/ $\sqrt{\text{that-APPR(-GEN)}}$
 cip-ul sa-ko siph-Ø-ta
 house-ACC buy-CONV want-PRES-DECL
 “I want to buy a house like this” [this construction, price, etc.]

-*Cengto*’s properties in its grammatical (postnoun/postposition) use are (1) that it is postnominal, and not restricted to round numbers (similar to *-ccum*, cf. (10a) and (4a)), and (2) that it is quasi-synonymous to *-ye* (cf. (10b) and (8a)).

- (10) a. han $\sqrt{\text{(sikan)-cengto}}$ ka-ta [SKLD 2008]
 1[NK] $\sqrt{\text{(CLASS.hour[NK])}-\text{APPR.POST}}$ go-PRED
 “to walk for around an hour”
 b. oleynci **payk-ye** **kay-cengto**
 orange 100-APPR.ODD CLASS-APPR.POST
 “around 100 oranges”

Is *-cengto* ‘APPR.POST’ in its grammatical use a full noun, as free postpositions [Rudnitskaya 2009] (e.g. *aph* ‘front, in front of’); or is it partially grammaticalized, similar to bound postpositions (e.g. *-cen* ‘before’)? The tests below show that *-cengto* has bound postposition rather than free postposition properties.

First, *-cengto* must go right after the noun stem, it cannot follow *-uy* ‘GEN’ in (11a) or any other particle or adverb. Second, *-cengto* (similar to *-ccum*) can form idiomatic constructions with an approximate meaning with nouns in (11b–c).

- (11) a. han sikan($\sqrt{\text{-uy}}$) **cengto**
 1[NK] CLASS.hour[NK]($\sqrt{\text{-GEN}}$) APPR.POST
 “approximately one hour”
 b. nayil-**ccum**/ $\sqrt{\text{-cengto}}$ / $\sqrt{\text{-cengto-ccum}}$ [cf. (13a)]
 tomorrow.NOUN-APPR/-APPR.POST/ $\sqrt{\text{-APPR.POST-APPR}}$
 “around tomorrow”
 c. cwungkan-**ccum**/ $\sqrt{\text{-cengto}}$ / $\sqrt{\text{-cengto-ccum}}$
 middle-APPR/-APPR.POST
 “approximately in the middle”

Second, example (11d) shows that *-cengto*, similar to *-ccum*, can attach to a disjunction (‘20 or 30 years’). This example is additional evidence that supports statement (5) about *-ccum* being a phrasal affix. (11d) shows that both *-ccum* and *-cengto* are phrasal affixes.

- (11) d. [isip nyen-ina samsip nyen] $\sqrt{\text{-cengto/}}$ $\sqrt{\text{-ccum}}$
 [20[SK]-OR 30[SK]] CLASS.year]-APPR.POST/- APPR
 “approximately 20 or 30 years”

If *-cengto* (as an approximation marker) is a grammatical nominal marker, and it must always follow the stem (in (11a)), can it be placed in the 1st [Post] inflection slot in Table 3?

Table 3

Nominal inflection (based on [Cho, Sells 1995])

(Stem)	(Hon)	(Plur)	(Post)	(Post)	(Delim-1)
	-nim-	-tul-	-ey-	-lo-	-man-/kkaci-/cocha-

(Delim-2)	[(Cop)/(Mood/Quot)]
-(n)un/-i/-ka/-to...	[-(i)/ (-ta) (-ko)...]

Let us consider arguments for and against this claim. Similar to *-ccum*, *-cengto* is possible in (12a–b) and (13a); it cannot be part of “multiple particle constructions” — see (12b), (13a) vs. (6c) with *-ccum*. Examples (12a) and (13b–c)⁵ show that *-cengto* can attach case affixes. These data are evidence that might allow us to conclude that *-cengto* indeed belongs to nominal inflection and can probably be placed into some inflection slot in Table 3, say, into the [Post] slot (which immediately follows the stem).

- (12) a. i-**ccum-eyse** hancam ca-psita [Martin 1992: 437]
 this-APPR-LOC short_sleep (go_to_)sleep-PROPOS
 √ i-**cengto-eyse**
 “Let us go to sleep **somewhere (around) here**”
- b. 2 nyen cen-**ccum-chelem** [from the Internet⁶]
 2 year before.POST-APPR-COMPAR.PTCL
 √ cen-**cengto-chelem**
 “**The same as approximately 2 years ago**”
- (13) a. Na-nun Mikwuk-ey han
 I-TOP America-LOC 1[SK]
 tal-**cengto-ccum/** ***-ccum-cengto**
 CLASS.month-APPR.POST-APPR/ *-APPR-APPR.POST
 memwulu-l yeceng-i-Ø-ta
 stay-PART.FUT schedule-COP-PRES-DECL
 “I am scheduled to stay in America for around one more year”
- b. yak isip pwun-**cengto(-lul)**
 around[ADV] 20 CLASS.minute-APPR.POST(-ACC)
 ttui-ess-ta
 run-PAST-DECL
 “(He) jogged for around 20 minutes”
- c. Oleynci payk kay **cengto(-ka)**
 orange 100 CLASS APPR.POST(-NOM)
 cektangha-Ø-ta
 fit-PRES-DECL
 “Around 100 oranges are OK” [for this customer]

⁵ *-Ccum*, as in (12a), can attach case markers (quite rarely).

⁶ S.-K. Hwang, who has found this example, judges the string [*cen*[N])-*ccum-chelem*] as marginally grammatical, whereas the opposite order [*cen*[N])-*chelem-ccum*] is considered ungrammatical.

Now let us see whether we may regard the ‘APPR.POST’ *-cengto* as a full noun (Step 1 in Table 4) or as a partially grammaticalized word/ particle (Step 2 in Table 4). The data above (exx. (11)–(13)) show that *cengto* ‘measure/degree’ [in (9), written as a separate word] is a full noun (Step 1 in Table 4), but *-cengto* in the APPR.POST grammatical use is a nominal stem partially grammaticalized (Step 2 in Table 4). The ‘APPR.POST’ *-cengto* loses some full noun features [independent word status, ability to have genitive modifiers] and acquires certain features of a phrasal particle.

Table 4

(from [Hopper, Traugott 1993: 7])

Step 1	Step 2	Step 3	Step 4
content word →	grammatical word →	clitic →	inflectional affix

Let us finally look at the properties of a quasi-synonymous postnoun/postposition *-namcis* ‘APPR.POST.ODD’[NK]. Its meaning is similar to *-ye*’s ‘APPR.ODD’ meaning (see section 2) — ‘little more than’[SKLD 2008]. However, its grammatical features are similar to the features of *-cengto* (see (11)–(13) above): *-namcis* is postnominal, it is most frequently used as an approximation marker rather than as a full noun.⁷ *-Namcis* is restricted to round numbers, and is partially grammaticalized: see examples (14a–d).

- (14) a. *han* *tal* *namcis*
 1 month APPR.POST.ODD
 ‘a little more than 1 month’
- b. *Kamca-lul* *sip* *killo* *namcis-Ø*
 potatoes-ACC 10 kilo APR.POST.ODD-ACC
 sa-ss-ta
 buy-PAST-DECL
 ‘(I) bought a little more than 10 kilograms potatoes’
- c. *Ku-nun* *payk* *myeng* *namcis-eykey/-uy*
 he-NOM 100 CLASS.man APPR.POST.ODD-DAT/-GEN
 cici-lul *pat-ass-ta* [cf. *-cengto* in (12a), (13b-c)]
 support-ACC get-PAST-DECL
 ‘He was supported by a little more than 100 people’
- d. *hantal(*-ul)* *namcis(*-ul)* [cf. *-cengto* in (11a)]
 one month(*ACC) APR.POST.ODD-ACC
 ku *tosi-ey(se)* *sal-ass-ta*
 thistown-LOC live-PAST-DECL
 ‘I lived in this town a month and a little more’

⁷ *-Namcis* can also be used (similar to *cengto* ‘ta’ ‘to a degree that...’) as a base of a predicate: *namcis-ha-ta* ‘APPR.POST.ODD-do-PRED’:

- (i) *Inlyuhak-uy* *yeksa-nun* *kyewu* *il*
 anthropology-GEN history-TOP just one
 seyki *namcis-ha-ta*
 century APPR.POST.ODD-do-DECL
 ‘The history of anthropology is just a little more than 1 century [old]’

As a conclusion, we present the comparative Table 5. In this table, the origin, the meaning, and the grammatical properties of *-ye*, *-ccum*, *-cengto*, and *-namcis* are listed. We see from the Table that *-ye* and *-cengto* have SK origin, but *-ccum* and *-namcis* are of NK origin. However, the origin does not fully determine any features of the approximation markers.

The SK *-ye* is a derivation affix, unlike the NK *-ccum* (which is a phrasal affix), whereas both the SK *-cengto* and the NK *-namcis* are partially grammaticalized postnouns/postpositions. The meaning of the SK *-ye* and the NK *-namcis* is identical (APPR.ODD ‘a little more than’), and the NK *-ccum*’s and the SK *-cengto*’s meanings are identical (APPR ‘approximately’). We see that grammaticalization and lexicalization strongly influence the semantic and syntactic properties of the markers under consideration.

Table 5

	<i>YE</i>	<i>CCUM</i>	<i>CENGTO</i>	<i>NAMCIS</i>
<u>Origin</u>	SK	NK	SK	NK
<u>Tag/Meaning</u>	APPR.ODD	APPR	APPR.POST	APPR.POST. ODD
<u>Grammatical status</u>	Derivational affix	Phrasal affix & particle	Noun in a grammatical use; partially grammaticalized	Nominal stem used only as a grammatical marker
<u>Position</u>	Postnumeral	Postnominal		

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