1. Introduction

In numeral classifier constructions in Korean, there seems to be a correlation between morpheme order and possible interpretations. The three-way contrast is illustrated in (1):

(1) a. Hakseng-dul-i chek-se.ke -lul ilk -ess -ta
    'The students read three (specific or non-specific) books.'

b. Hakseng-dul-i chek -ul se.ke ilk -ess -ta
    'The students read three (nonspecific) books.'

c. Hakseng-dul-i chek -ul se.ke -lul bo -ass -ta
    student -PL -NOM book-ACC 3.CL -ACC see-PST-DECL
    'The students, (as for) books, they read three (of them).

The only difference between the string order in (1a) and (1b) is that the #.CL is between the head NP and the Case marker in (1a), but follows the Case marker in (1b). And somehow, going from (1a) to (1b), we lose one possible meaning: while ‘3 movies’ in (1a) can be a specific or a nonspecific indefinite, (1b) only allows a nonspecific reading.

In (1c), there are two instances of the same Case marker, in what looks like some kind of Case-doubling or copying, and the interpretation is much like that of a partitive. Due to the independent possibility of Case-dropping in Korean, notice that (1c) could end up being string identical to either (1b) or (1a). I argue in section 4 that this is really a different, Topic-Comment type structure.

The paper is organized as follows: after giving some relevant information about Korean, I discuss the contrast between (1a) and (1b), showing that there is a systematic meaning difference that correlates with linear order, and proposing a structural account for the missing specific reading in (1b). Then I’ll talk about cases like (1c), and present some reasons to think these are structurally very different from the (1a), (1b) cases.

2. Basics facts about Korean

There are no articles in Korean. A bare nominal is ambiguous between a definite, a specific indefinite, and a nonspecific indefinite. Nothing particularly unexpected happens when the arguments are quantified expressions. With numerals, as in (3), both surface and independent scope readings (and marginally, inverse scope) are available.

* I’d like to thank Carson Schütze, Dominique Sportiche, Hilda Koopman, and the UCLA Syntax/Semantics Seminar audience for helpful comments and discussion. Thanks also to Jieun Kim for judgments, and help constructing examples.


2 There’s a big literature on scrambling possibilities for these ‘floated’ constructions, along the lines of Sportiche’s (1988) analysis of Quantifier Float. See e.g. Takano (1984); Miyagawa (1989, 1997); Ishii (1999); Kakegawa (2000).
Some meaning differences emerge, however, when one of the arguments is the head of a numeral classifier construction. As shown in (4), there are different possible orderings of the NP, the Case marker, and the numeral classifier (#.CL) which correspond to different readings\(^3\).

(4) a. Eonehakja-2.myeng-i chek-ul sse ss ta
inguist -2.CL -NOM book-ACC write-PST-DECL
‘2 (specific or nonspecific) linguists wrote the/a book’

b. Eonehakja-ga -2.myeng chek-ul sse ss ta
linguist -NOM-2.CL book-ACC write-PST-DECL
‘2 (nonspecific) linguists wrote the/a book’

c. 2.myeng-e -eonehakja-ga chek-ul sse ss ta
2.CL -GEN-linguist -NOM book-ACC write-PST-DECL
‘2 (nonspecific or specific) linguists wrote the/a book’

To characterize the meaning contrast more precisely, the Case-final order seems to pattern with so-called wide-scope indefinites, which are able to take scope outside of syntactic islands. (5) and (6) illustrate this with conditional clauses and intensional domains, but similar facts also hold with respect to distributivity and the scope of negation.

(5) a. [yeja -tu.myeng-i pati -e o -myen] Dave-nun kipe -e -ta
women-2.CL -NOM party-LOC come-if Dave-TOP happy-be.FUT-fact-DECL
‘If two women come to the party, Dave will be happy.’

\(\checkmark\) IF\(\exists\)2: ‘There are two women (e.g. Lauren and Katya), s.t. if they come to the party, Dave will be happy.’

\(\checkmark\) 2\(\exists\)IF: ‘If there are (at least) two women at the party, Dave will be happy.’

b. [yeja -ga -tu.myeng pati -e o -myen] Dave-nun kipe -e -ta
women-NOM-2.CL party-LOC come-if Dave-TOP happy-be.FUT-fact-DECL
‘If two women come to the party, Dave will be happy.’

\(\star\) IF\(\exists\)2: ‘There are two women (e.g. Lauren and Katya), s.t. if they come to the party, Dave will be happy.’

\(\checkmark\) 2\(\exists\)IF: ‘If there are (at least) two women at the party, Dave will be happy.’

(6) a. Jieun-i [gyosu -ne.myeng-i (caki) abstract-lul ilk -ki]
Jieun-NOM professor-4.CL -NOM (self) abstract-ACC read-COMP
bal.ha -n -ta
want.do-PROG-DECL
‘Jieun wants four professors to read her abstract.’

\(\checkmark\) WANT\(\exists\)4: ‘There are four (specific) professors, s.t. Jieun wants them to read her abstract.’

\(\checkmark\) 4\(\exists\)WANT: ‘Jieun wants (any) four professors to read her abstract.’

b. Jieun-i [gyosu -ga -ne.myeng (caki) abstract-lul ilk -ki]

\(^3\) Sentences like (4c) will not be discussed in this paper, but they appear at least superficially to share properties with (4a) and (1a).
3. **Case-medial order results from CIP extraposition**

I assume that the Case-final order is basic, and that the Case-medial order is derived by extraposing the CIP and right-adjoining it to DP. The former gives us the order compatible with both specific and nonspecific readings; the latter is the more restricted case, where the possibility of deriving a specific reading must be ruled out.

Structure for (1a)  

\[
\begin{array}{c}
\text{Structure for (1b)} \\
\end{array}
\]

I propose that the extraposed order in (1b) necessarily has a nonspecific reading due to a constraint on extraction out of specific DPs (this goes back to Chomsky’s Specified Subject Condition (1973), and Fiengo and Higginbotham’s Specificity Condition (1981)).

To begin with, I will mention a couple instances of similar ‘split-DP’ constructions in other languages that seem to have similar distributions of possible meanings. Similarly, cases of CIP extraposition in Korean seem to pattern with possibilities for extraction out of DPs in English. Finally I show that the interaction of Diesing’s Mapping Hypothesis with a condition on LF representations can predict that only the observed meanings for (1a) and (1b) will be derivable.

### 3.1. *Hey, this looks like French!*4

In both Korean and French, the ‘split’ version, which involves dislocation from DP (whether this is analyzed as quantifier float or cliticization), is the one missing the specific indefinite reading.

(7)  

- a. Il a lu trois livres  
  He has read three books  
  ‘He read three (specific or nonspecific) books.’

- b. Il en a lu trois, (de livres)  
  He CL has read three of books  
  ‘He read three (nonspecific) books.’

- c. Il a lu trois des livres  
  a typical partitive construction (structurally

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4 Thanks to Dominique Sportiche for pointing out this parallel.
5 The other possibility being that there isn’t any movement, and there is some kind of operator-variable relationship between ‘en’ and the number phrase.
He has read three of the books and interpretively

‘He read three of the books.’

There are also these split-DP (split-topic) constructions in German, where part of a DP is left-dislocated (van Riemsdijk (1989); den Besten (1985); a.o.). Müller (1996) and others have noted that split NP-PP constructions exhibit a specificity effect:

\[(8)\] a. *Über Syntax hat Karl [das Buch] gelesen
on syntax has Karl the book read
‘Karl read the book on syntax.’

b. ??[Das Buch] hat Karl über Syntax gelesen
the book has Karl on syntax read
‘Karl read the book on syntax.’

Similarly, Diesing (1992) suggests that extraction is possible only with stage-level predicates because only subjects of stage-level predicates can occupy the VP-internal subject position. Subjects of individual-level predicates, on the other hand, must be external to VP due to Diesing’s Mapping Hypothesis. The former allows extraction from DP, and the latter does not.

\[(9)\] a. *Schuhe sind viele wasserdicht.
shoes are many waterproof
‘As for shoes, many are waterproof.’

b. Karotten sind viele im Kühlschrank.
carrots are many in-the refrigerator
‘As for carrots, many are in the refrigerator.’

3.2. Extrapoised DP patterns similarly to extraction from different types of DPs in English

In English, extractability from DPs is graded according to DP type (Schütze (1995); full paradigm originally noted in Chomsky (1973)):

\[(10)\] a. Who, did you see [a picture of tj]? 

b. Who, did you see [three pictures of tj]?

c. ?Who, did you see [Bill’s picture of tj]?

d. *?Who, did you see [the picture of tj]?

Further, not all definite descriptions are alike (Keenan (2003))—the definite description in (11c) can occur in a there-insertion context, but this seems to be because it’s a superlative, which forces the DP to be definite in any case.

\[(11)\] a. There are two squirrels in the backyard.

b. *There are the two squirrels in the backyard.

c. There’s the biggest squirrel I’ve ever seen in the backyard.

Similar facts seem to hold in Korean. Given the Case-medial order, making the DP possessive blocks a specific/definite reading.

‘Jieun called Bill’s three friends.’ (definite description)

‘Jieun called, (as for) Bill’s friends, three of then.’ (partitive reading)

#‘Jieun called Bill’s three friends.’ (definite description)
Likewise, with superlatives (assuming these force a definite or specific reading), only the Case-final order seems to be acceptable:

(13) a. Dui.madang-e [[ne-ga isste.kaji bo-n] kajang ke-n taramji-]
    Backyard -LOC I -NOM now.until see-REL most big-REL squirrel
    2.mari-ga] isst -ta
    -2.CL -NOM exist-DECL
    ‘There are the 2 biggest squirrels I’ve ever seen in the backyard.’

b. #Dui.madang-e [[ne-ga isste.kaji bo-n] kajang ke-n taramji-ga-
    Backyard -LOC I -NOM now.until see-REL most big-REL squirrel-NOM-
    2.mari] isst -ta
    2.CL exist-DECL
    ‘There are the 2 biggest squirrels I’ve ever seen in the backyard.’

3.3. The Mapping Hypothesis and Proper Binding

To explain the generalization that extraction out of specific elements is bad, Diesing (1992) assumes the following: first, specific (presuppositional) nominals must raise out of VP to satisfy the Mapping Hypothesis—that is, before tree-splitting occurs, mapping the VP into the nuclear scope of the tripartite structure. Further, extraction is prohibited from NPs that undergo movement (either scrambling or QR), due to something like the Freezing Principle (originally due to Wexler and Culicover 1980).

This won’t straightforwardly carry over to these cases in Korean, since the extraction out of DPs happens overtly, while specific DPs undergo QR in order to satisfy the Mapping Condition at LF. What I need is a representational constraint that rules out the cases where extraposition from DP and QR both occur. The set of assumptions I make are in (14).

(14) a. Diesing’s Mapping Condition must be met at LF—all specific DPs must be external to VP (possibly vP) before tree-splitting and existential closure. (This condition can be satisfied via overt movement—i.e. scrambling in German—or covertly, as in English, Korean).

b. Remnant movement is a possible surface operation.

c. The Proper Binding Condition is a condition on LF representations—in other words, if remnant movement has occurred on the surface, the moved element must lower at LF in order to avoid a violation of the PBC.

Given the assumptions in (14), a derivation of the (1a) order would proceed as follows. The order of initial merger is NP<ClP<NumP<DP. NP raises to the specifier of NumP, to get surface morpheme order. DP then checks its Case feature against a Case head in the overt syntax (say, an Agr projection), and the Case morpheme gets realized on the D head. That’s it for the overt component. Just in case the DP is [+specific], it raises at LF to satisfy the Mapping Condition. However, now the trace left by the extraposed ClP is not properly bound (neither, by the way, is the NP-trace); if the DP is lowered to its theta-position to fix this, the Mapping Condition is

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6 Diesing actually needs to do something like this in order to account for both German, where presuppositional elements scramble overtly, and English, where overt wh- movement precedes QR. To capture both cases irrespective of derivational order, she formulates Subjacency as a condition on LF representations.

7 All traces of movement must be properly bound by the moved element (original formulation Fiengo 1974, 1977).

8 Alternatively, it could left-adjoint to DP, then the remnant DP could move around ClP to a higher projection.
violated—so this isn’t a possible derivation. If the DP is [-specific], it doesn’t have to meet the Mapping Condition and the derivation doesn’t leave any unbound traces at LF. The LF representations for the (1a) and (1b) cases are in (15a) and (15b).

\[
\text{(15) } \quad \begin{align*}
\text{a.} & \quad \text{b.}
\end{align*}
\]

4. Topic-Comment indefinites and partitive readings

So what about the third part of the three-way paradigm?

(1) c. Hakseng-dul-i yenghwa-lul se.ke-lul bo-ass -ta
    student -PL-NOM movie -ACC 3.CL-ACC see-PST-DECL
    ‘The students, (as for) movies, they saw three of them.

Here’s a little more information. First, it’s possible in Korean to drop the Case marker in certain situations.

(16) a. Eoje manna-n ai -dul-(i) cha-lul bak -ass -te
    yesterday meet -REL kid-PL -(NOM) car-ACC crash-PST-EVID
    ‘The kids we met yesterday crashed (the/their) car’

b. Uri-nun jul.muni-kerye-ji -n yangmal-(ul) nemu jowa.ha-n -ta
    we-TOP stripes -draw-PASS-REL socks -(ACC) so.much like -PROG-DECL
    ‘(As for us,) we really love stripey socks’

Secondly, assume the DPs in (1a)/(4a) and (1b)/(4b) are articulated as one prosodic phrase. There is a way to say these sentences that puts a significant prosodic break (pause or lengthening) between the NP and the #.CL. Together with the Case-dropping possibilities, this gives us four more versions in addition to (4a) and (4b).

(17) a. Eonehakja-ga chek-ul | se.kwon-ul sse -ss -ta
    linguist -NOM book-ACC 3.CL -ACC write-PST-DECL
b. Eonehakja-ga chek-ul | se.kwon sse -ss -ta
    linguist -NOM book-ACC 3.CL write-PST-DECL
c. Eonehakja-ga chek | 3.kwon-ul sse -ss -ta
    linguist -NOM book 3.CL -ACC write-PST-DECL

\footnote{Case-drop seems to be easier when the NP is long/heavy; it also potentially affects prosody, but not in a way that will matter here.}
I suggest that these sentences have the following structure, with two DPs which are base-generated separately, one in a low Topic position.\textsuperscript{10}

\left(18\right)

For one thing, this is a pretty simple way to explain why you can get two Case markers in (17a). (Otherwise one would have to assume there is some extra mechanism of Case copying or doubling that is constrained so it can only happen in cases like (17a).)

Some other observations.

In addition, adverbial material can go between the first and second DP in these cases, but can’t go anywhere inside the DP (19a). In (19b), which corresponds to (17a), an adverb can’t go anywhere in the $NP\#_{.CL}\cdot CASE$ string, and in (19c)—which contains an identical string to (19a), putting an adverb between the $NP\cdot CASE$ and the $#\cdot CL$ is quite marginal.

\left(19\right)

\begin{enumerate}
\end{enumerate}

\text{‘Jane bought 4 books yesterday.’}

\left(20\right) further shows that the ‘Topic’ can be a full DP with its own numeral classifier—this seems to be a pretty good reason for not generating these sentences by extracting the NP out of the DP (i.e. a stranding or Q-Float analysis).

\left(20\right)

\begin{enumerate}
\item a. Eoje bo -n hakseng-yeset.myeng, tu.myeng-i/un na-e ban Yesterday see-REL student -6.CL 2.CL -NOM/TOP me-GEN class i -ko ne.myeng-i/un chet.nyen –i -ya COP-CONJ 4.CL -NOM/TOP first.year -COP-DECL
\end{enumerate}

\textsuperscript{10}In other words, I’m suggesting that the morphemes labeled throughout as NOM and ACC can mark Topics. See Schütze (2001) for arguments that –\textit{ga} and –\textit{lul} in Korean are ambiguous between true Case markers and Focus markers.
The 6 students we saw yesterday, 2 (of them) are in my class and 4 (of them) are first years.

Of the 6 students we saw yesterday, the 2 female students are graduating next year.

These sentences also have to have a particular information structure (again, compare with string-identical (1a)-(1b)). (21) gives a series of wh- questions that focus different parts of the DP. The answer (21e) is structurally like the sentences in (17).

(21) a. Q: Eonehakja-myet.myeng -i chek-ul sse -ss -ni?
Linguist -how.many.CL-NOM book-ACC write-PST-Q
‘How many linguists wrote a book?’

b. Q: Etten -hakja myet.myeng -i chek-ul sse -ss -ni?
Which-scholar(s) how.many.CL-NOM book-ACC write-PST-Q
‘Which scholars, how many (of them) wrote a book?’ (pair-list, single-pair)

c. Q: #Nu -ga chek-ul sse -ss -ni?
Who-NOM book-ACC write-PST-Q
‘Who wrote a book?’

d. Q: #Etten -hakja -(dul)-i (2.myeng-i) chek-ul sse -ss -ni?
‘Which scholars are s.t. 2 (of them) wrote a book?’

2 of which scholars wrote a book?

e. A: Eonehakja-ga | tu.myeng-i chek-ul sse -ss -e
Linguist -NOM 2.CL -NOM book-ACC write-PST-DECL
‘Linguists [2 of them] wrote a book.’

Here, the questions that focus something other than the #.CL seem to be unacceptable.

What about the (1b) cases? (22) has the same questions as (21), only with acceptability judgments for an answer containing the Case-medial order.

(22) a. Q: #Eonehakja-myet.myeng -i chek-ul sse -ss -ni?
Linguist -how.many.CL-NOM book-ACC write-PST-Q

b. Q: ?Etten -hakja myet.myeng -i chek-ul sse -ss -ni?
Which-scholar(s) how.many.CL-NOM book-ACC write-PST-Q

2 of which scholars wrote a book?

c. Q: Nu -ga chek-ul sse -ss -ni?

Who-NOM book-ACC write-PST-Q

A: Eonehakja-ga -tu.myeng chek-ul sse -ss -e
Linguist -NOM 2.CL book-ACC write-PST-DECL
‘2 linguists wrote a book.’

This is a different pattern from (21)—it looks like either the whole DP or the NP (not the #.CL) has to be the focus of the question. Finally, compare with the (1a) cases:

(23) a. Q: Eonehakja-myet.myeng -i chek-ul sse -ss -ni?
Linguist -how.many.CL-NOM book-ACC write-PST-Q

b. Q: Etten -hakja myet.myeng -i chek-ul sse -ss -ni?
Which-scholar(s) how.many.CL-NOM book-ACC write-PST-Q

A: Nu-ga chek-ul sse -ss -ni?
Anything seems to go here. This makes sense if the whole DP is focused and any part of it can be questioned.

5. Conclusion

Based on similarities between possible interpretations of Korean numeral classifiers and the behavior of other ‘split-DPs’ with respect to extraction and specificity, I’ve argued that the missing specific reading in the Case-medial order can be derived using Diesing’s Mapping Hypothesis and a Proper Binding Condition on LF representations.

In contrast, I argue that the apparent ‘Case-doubling’ construction in (1c) contains two separately base-generated DPs, which form a Topic-Comment structure, and give rise to a partitive interpretation.

References


