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## **SURFACE CASE AND GRAMMATICAL RELATIONS IN KOREAN: THE EVIDENCE FROM QUANTIFIER FLOAT**

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### 0. *Introduction.*<sup>1</sup>

The subject of this paper is Korean Quantifier Float. In particular, I will examine a claim of Shibatani's that the rule of Q-Float in Korean must reference surface case rather than grammatical relations; to be precise, Quantifiers can float only from NOM and ACC marked nominals according to Shibatani (1977).<sup>2</sup> Upon deeper examination of the data, however, I have found that Shibatani's claim cannot be maintained. I will show here that *neither* surface case *nor* grammatical relations lead to an optimal rule of Q-Float.

The format of this paper is as follows: First, I discuss Korean Q-Float in general, delineating a particular type of data for discussion. Second, I examine the argument put forth by Shibatani in favor of the surface case analysis giving an alternative account of the crucial data. Third, I present a set of data that is problematic for the surface case analysis. Fourth, I examine the grammatical relations analysis, bringing up a serious problem. Finally, I briefly develop what I think is a better account of Q-Float based on a treatment which refers to constituent structure.

### 1. *Quantifier Float in Korean.*

Korean has both *internal* and *external* Q-Float. In (1a) the Quantifier phrase consists of the quantifier, the noun, and then the case marking; however, (1b) is also possible where the order is noun, quantifier, and then case.<sup>3</sup>

- (1) a. *Kyosu- ka sey chaek-il ssi- et- ta.*  
 professor-NOM 3 book- ACC write-pst-ind  
 'The professor wrote three books.'
- b. *Kyosu-ka chaek seys-il ssi-et-ta.*  
 book 3- ACC  
 'The professor wrote three books.'
- c. *Kyosu-ka chaek-il seyt/seys-il ssi-et-ta.*  
 book- ACC 3/ 3- ACC  
 'The professor wrote three books.'

Examples like (1b), I propose, are cases of internal float; these simply involve scrambling within the noun phrase. In (1c), however, the quantifier is externally floated; it appears outside of the case marking on the noun and can take its own case marking.<sup>4</sup> It is the latter phenomenon — externally floated Quantifiers — that I will deal with here.<sup>5</sup> I claim, following a proposal for English by O'Grady (1982) and for Romance by Belletti (1982), that these Quantifiers are anaphora, that is they are base-generated in a position outside of the noun phrase and they must be linked to an NP by a binding rule. Nevertheless I continue to refer to such structures as Quantifier Float, this name being a vestige of a movement analysis.

Externally floated Quantifiers — anaphoric Quantifiers, under my analysis — can appear with case, as seen in (1c).<sup>6</sup> I regard this to be a type of agreement feature. Only two cases — NOM and ACC — can appear on anaphoric Quantifiers: (1c) above exemplifies ACC case; (2b) exemplifies NOM case; in contrast, Quantifiers cannot appear referring to OBL(ique)-marked nominals and thus cannot occur with the various OBL(ique) post-positions, as seen in (3b) and (4b):

- (2) a. *Yele salam- til-i yeki-ey o- at- ta.*  
 several person-pl-NOM here-LOC come-pst-ind  
 'Several people came.'
- b. *Salam- til-i yeki-ey yelet/ yeles- i*  
 person-pl-NOM here-LOC several/several-NOM  
*o- at- ta.*  
 come-pst- ind
- (3) a. *Nae-ka sey sonnim- ilwihaese yoli- ha-yet-ta.*  
 I- NOM 3 guests- for food-do-pst-ind  
 'I cooked dinner for three guests.'

b. *Nae-ka sonim-ilwihaese* (\**seyt/seys-ilwihaese*)  
3/ 3- for

*yoli-ha-yet-ta.*

(4) a. *I chaek-in motin haksæng-eyiyyaese*  
this book-TOP all student- by  
*ilk-hi-et-ta.*<sup>7,8</sup>

'This book was read by all the students.'

b. *I chaek-in haksæng-eyiyyaese* (\**motu/motu-eyiyyaese*)  
all/ all- by  
*ilk-hi-et-ta.*

The case on the Quantifier can have the pragmatic function of disambiguating between possible antecedents. For example, (5a), where the Quantifier is caseless, is ambiguous, but (5b), where the Quantifier is marked ACC, is not.

(5) a. *Haksæng-i Yengmi-eykey chaek-il seyt*  
student- NOM Y.- DAT book- ACC 3  
*cu- et- ta.*  
give-pst-ind

'Three students gave books to Yengmi.'

-or- 'The students gave three books to Yengmi.'

b. *Haksæng-i Yengmi-eykey chaek-il seys-il cu-et-ta.*  
3- ACC

'The students gave three books to Yengmi.'

The floated Quantifier can appear anywhere in the clause to the right of its antecedent; thus (6a), (b), and (c) are acceptable but (6d) is not.

(6) a. *Haksæng-i seys-i Yengmi-eykey*  
student- NOM 3- NOM Y.- DAT  
*chaek-il cu- et- ta.*  
book- ACC give-pst-ind

'Three students gave books to Yengmi.'

b. *Haksæng-i Yengmi-eykey seys-i chaek-il cu-et-ta.*

c. *Haksæng-i Yengmi-eykey chaek-il seys-i cu-et-ta.*

d. *Yengmi-eykey* (\**seys-i*) *chaek-il haksæng-i cu-et-ta.*

Often when there are two potential antecedents for a Quantifier, one takes clear priority.<sup>9</sup> Thus in (7), although both *sensaengnim* and *haksæng* agree with the Quantifier in case, the latter is the preferred antecedent.<sup>10</sup>

- (7) *Sensaengnim-i haksæng-i hakkyo-lil*  
 teacher- NOM student- NOM school- ACC  
*seys-i ttena- key ha-yet-ta.*  
 3- NOM leave-cmp do-pst-ind  
 (preferred): 'The teacher made three students leave school.'  
 (secondary): 'Three teachers made the students leave school.'

In (8) both *sonyen* or *chaek* match the Quantifier in case, but *chaek* is the preferred antecedent.<sup>11</sup>

- (8) *Haksæng-i sonyen-til-il chaek-il seys-il*  
 student- NOM boy- pl-ACC book- ACC 3- ACC  
*cu- et- ta.*  
 give-pst-ind  
 (preferred): 'The student gave the boys three books.'

I have, as yet, little to say about the factors determining these choices, though proximity does not appear to be one of them, as seen in (9):

- (9) *Haksæng-i chaek-il sonyen-til-il seys-il*  
 student- NOM book- ACC boy- pl-ACC 3- ACC  
*cu- et- ta.*  
 give-pst-ind  
 (still preferred:) 'The student gave the boys three books.'

To summarize, this section has shown some general properties of externally floated Quantifiers, which I take to be anaphors. They appear to the right of their antecedents, they can be case marked in agreement with their antecedents, this case marking can disambiguate potential antecedents, and in many instances one antecedent is strongly preferred.

The discussion of floated quantifiers in the previous section reveals that a grammar of Korean must minimally account for two aspects of the phenomenon: first, it must delineate which nominals are possible antecedents of Quantifiers (in other words, which nominals *sanction* Quantifiers); and second, it must formulate a rule of case in such a way as to assign case to floated Quantifiers. In this paper, I deal only with the former problem. I assume, however, that the case on Quantifiers is a type of agreement feature with the antecedent; thus a proper treatment will not tolerate a disagreement of case between a Quantifier and its supposed antecedent.

2. *Surface Case vs. Grammatical Relations.*

In this section, I examine Shibatani's claim that surface case rather than grammatical relations determines Q-Float in Korean. I present the Korean evidence which Shibatani gives in support of this claim and offer an alternative analysis of the crucial examples, showing that the data are in fact, inconclusive.

Shibatani's evidence rests on the following contrast; he proposed that *haksaeng* in (10a) and (11a) are both *final* indirect objects: however, only the ACC marked indirect object can antecede the Quantifier, as is seen in (10b) vs. (11b).<sup>12</sup>

- (10) a. *Nae-ka sey haksæng-til-eykey yenge- lil*  
 I- NOM 3 student- pl-DAT English-ACC  
*kalichi-et- ta.*  
 teach-pst-ind  
 'I taught English to three students.'
- b. \**Næ-ka haksæng-til-eykey yenge-lil seytseys-eykey*  
 3/ 3- DAT  
*kalichi-et-ta.*
- (11) a. *Næ-ka sey haksæng-til-il yenge- lil*  
 I- NOM 3 student- pl-ACC English-ACC  
*kalichi-et- ta.*  
 teach- pst-ind  
 'I taught English to three students.'
- b. *Næ-ka haksæng-til-il yenge-lil seys-il*  
 3- ACC  
*kalichi-et-ta.*

Hence it is case and not grammatical relations determining Quantifier Float.

Shibatani presents a single argument that ACC marked nominals like *haksæng* in (11) are final indirect objects; if they were direct objects, Shibatani claims, they should advance to subject via Passive; but this is impossible, as seen in (12).

- (12) \**Haksæng-til-i na-eyiyhaese yenge- lil*  
 student- pl-NOM I- by English-ACC  
*kalici-echi- et- ta.*  
 teach-PAS-pst-ind  
 ('The students were taught English by me.')

However, in Gerdts, Choi, Chun, and Youn (1983), we propose that *no* non-initial objects in Korean can advance via Passive in a *ci*-Passive; hence if (11) did involve indirect object-to-object advancement (henceforth IOA) (which I claim it does), a Passive counterpart such as (12) would be predicted to be ungrammatical as this would involve IOA and Passive which would be ruled out by the constraint on *ci*- passives given above. This may at first seem circular, however, our constraint on *ci*- passives accounts for a much larger range of data than IOA constructions.

Specifically, non-initial objects in Possessive Ascension, Causative Clause Union, and Subject-to-Object Raising Constructions are banned from advancing to subject via *ci*- passives by our constraint. For example, in (13b) the Possessor which is in the direct object phrase in (13a), is ascended to bear the object relation, hence the ACC case marking.

- (13) a. Yangsu-ka Mary-iy elkul-il kili- et- ta.  
 Y.- NOM M.- GEN face- ACC draw-pst-ind  
 'Yangsu drew Mary's face.'  
 b. Yangsu-ka Mary-lil elkul-il kili-et-ta.  
 M.- ACC  
 'Yangsu drew Mary's face.'

Since *Mary* is not an initial object [it is the initial possessor] it is not sanctioned to advance to subject via *ci*- passive, as seen in (14).

- (14) \*Mary-ka Yangsu-eyiyhaese elkul-il  
 M.- NOM Y.- by face- ACC  
 kili- eci- et- ta.  
 draw-PAS-pst-ind  
 ('Mary's face was drawn by Yangsu.')

Further evidence based on Clause Union and Raising is available in Gerdts (1986).

Thus, the ungrammaticality of (12) is not an argument that *haksæng* in (11) is something other than a final direct object (specifically, an indirect object); Shibatani's argument fails to go through.

Furthermore, there is some positive evidence that clauses like (11b) do in fact involve IOA. First, as Shibatani points out in a footnote (p. 804), there is a contrast between (15a) and (15b); under Shibatani's analysis, *yenge* in both clauses is an initial object and thus should be able to advance to subject via Passive.



- (15) a. *Yenge- ka na-eyiyhaese haksæng-til-eykey*  
 English-NOM I- by student- pl-DAT  
*kalichi-eci- et- ta.*  
 teach- PAS-pst-ind  
 'English was taught to the students by me.'
- b. \**Yenge-ka na-eyiyhaese haksæng-til-il*  
 student- pl-ACC  
*kalichi-eci-et-ta.*

The lack of Passive in (15b), where 'indirect object' is case marked ACC is problematical for Shibatani, as he admits. In contrast, an analysis positing IOA in (15b), automatically accounts for its ungrammaticality; the advancement of the indirect object *haksæng* places the initial object *yenge* en chomage and object-chomeurs are universally prohibited from advancing in a Passive.<sup>13</sup>

A second argument comes from Topic constructions; only final terms (subject, object, and indirect object) can serve as plain topics (that is, thematic rather than contrastive topics). Note the contrast in (16a) and (16b):

- (16) a. *Yenge- nin nae-ka haksæng-eykey kalichi-et- ta.*  
 English-TOP I- NOM student- DAT teach- pst-ind  
 'I taught ENGLISH to the students.'  
 (plain or contrastive reading)
- b. ??*Yenge-nin nae-ka haksæng-il kalichi-et-ta.*  
 student- ACC  
 (contrastive reading only)

In Shibatani's analysis, where *yenge* in both (16a) and (16b) are initial and final direct objects, there is no apparent account for this contrast. Under an advancement analysis, the contrast is predicted. In (16a) where there is no advancement (as observed by the DAT case marking on *haksæng*), *yenge* is a final object and sanctioned as a plain topic; in (16b) where there is IOA (as observed by the ACC case marking on *haksæng*), *yenge* is an object chomeur — not a final object — and is not sanctioned as a plain topic.

In summary, we find that the data presented by Shibatani do not, in fact, support a surface case analysis over a grammatical relations account of Q-Float; while it is clear from the data he presents that possible antecedents of Quantifiers are in the NOM and ACC but not the DAT case, an account in terms of final subject and final object is equally tenable based on the data

discussed so far.

### 3. *The Evidence against Surface Case.*

However, exploration of data involving complex sentences shows that an account formulated in terms of grammatical relations is superior to one given in terms of surface case. Assuming that Quantifiers like other anaphors are obligatorily bound to an antecedent, I show that in some instances the Quantifier does not appear to have a proper antecedent according to the surface case analysis whereas an account in terms of grammatical relations is straightforward.

For example, in (17b), which corresponds to (17a), there is subject-object raising of the Quantified phrase *sey haksæng*, hence the ACC case marking.

- (17) a. *John-i* [ *sey haksæng-i* *chencaelako* ]  
 J.- NOM 3 student- NOM genius- imp-cmp  
*mit-et-ta.*  
 believe-pst-ind  
 'John believed that three students were geniuses.'
- b. *John-i sey haksæng-il [chencaelako] mit-et-ta.*  
 -ACC

The Quantifier can float from this phrase, as seen in (18); note that either NOM or ACC case can appear on the Quantifier.

- (18) *John-i haksæng-il seys-il il*  
 J.- NOM student- ACC 3- NOM/ACC  
*chencaelako mit-et-ta.*  
 genius- imp-cmp believe-pst-ind  
 'John believed that three students were geniuses.'

Under the surface case analysis, where NOM or ACC marked nominals sanction Quantifiers, we expect<sub>2</sub> given the assumption above that the case of the Quantifier should not disagree with the case of the antecedent, that, since the antecedent is ACC, the Quantifier should also be ACC in agreement with its antecedent; NOM case on the Quantifier is not expected since there is no possible antecedent with this surface case. In contrast, an account in terms of grammatical relations straightforwardly predicts both cases since the antecedent of the Quantifier bears two final grammatical relations: it is the final subject of the complement clause as well as the final

object of the matrix clause. If the Quantifier is bound in the lower clause, then NOM case is expected since it is sanctioned by a final subject: if the Quantifier is bound in the higher clause, then ACC is expected since it is sanctioned by a final object.

A second example of this type comes from Causatives. For example, in (19b), which corresponds to (19a), the complement subject is the matrix indirect object via Causative Clause Union, hence marked DAT; nevertheless the Quantifier is case marked NOM.<sup>14</sup>

- (19) a. *Nae-ka sey haks-aeng-eykey ttena-key ha-yet-ta.*  
 I- NOM 3 student- DAT leave-cmp do-pst-ind  
 'I made three students leave.'  
 b. *Nae-ka haks-aeng-eykey seys-i ttena-key*  
 I- NOM student- DAT 3- NOM leave-cmp  
*ha-yet-ta.*  
 do-pst-ind

It is clear that it is not the surface case of the antecedent that is sanctioning the Quantifier since there is no antecedent in the NOM case. Moreover, the DAT-marked nominal cannot be proposed as the antecedent because in simple clauses as illustrated in (10b) above DAT-marked nominals cannot antecede Quantifiers. Rather it is the status of the nominal as the final subject of the complement clause which sanctions the Quantifier as shown by the NOM case of the Quantifier. Again an account in terms of Grammatical Relations is shown to be superior.

In (20) the only potential antecedent of the Quantifier has the surface case marking of TOP(ic), which does not co-occur with NOM or ACC case.

- (20) *Chaek-in, nae-ka seys-il sa-t-ta.*  
 book- TOP I- NOM 3-ACC buy-pst-ind  
 'As for books, I bought three.'

Again, the Quantifier requires, under the surface case analysis, an antecedent in the ACC case; under the grammatical relations account, *chaek* is a final object (then a surface topic) and thus sanctions an ACC-marked Quantifier.

To summarize, the above data have shown that in complex sentences an account in terms of grammatical relations is preferred to a surface case account since Korean Quantifiers can be anteceded by nominals which are final subjects and objects which are nevertheless *not* surface subjects and objects and hence are not marked NOM or ACC.<sup>15</sup>

4. *A Problem for the Grammatical Relations Account.*

We have seen in the data presented above nominals bearing the final subject or final object relations in their clauses can antecede Quantifiers. In this section, I address the issue of other nominals which can antecede Quantifiers showing the difficulty involved in characterizing them in terms of grammatical relations.

In section 2 above, it has been shown that in clauses like (11b) which involve indirect object-to-object advancement that the final direct object (that is, the initial indirect object) can antecede a Quantifier. However, the initial direct object, which is a final object-chomeur, can also antecede a Quantifier as seen in (6) above, repeated here as (21):

- (21) *Haksaeng-i sonyen-til-il chaek-il seys-il*  
 student- NOM boy- pl-ACC book- ACC 3- ACC  
*cu- et- ta.*  
 give-pst-ind  
 'The student gave the boys three books.'

Shibatani points out such data in a footnote (p. 805), claiming that "relational grammar stipulates that a chomeur does not participate in a rule such as Q[uantifier] F[loat]." Thus, examples like (21) would provide evidence against indirect object-to-object advancement. However, if RG ever made such a claim concerning chomeurs, it is certainly not made explicit in more recent writings. In fact, a case like Korean, where both final objects and final object chomeurs can antecede Quantifiers is not unexpected given the notion of "acting term", as discussed in Perlmutter (1982). For example, an acting 2 (object) would include final objects and object chomeurs. It could be claimed then that not final 2s but rather acting 2s sanction Quantifiers in Korean.

However, the difficulty lies with the notion of subject relevant to the rule. As we have seen in data above, final 1s (subjects) can antecede Quantifiers; in addition, some 1-chomeurs, though not all, can also antecede Quantifiers. For example, the 1-chomeur of a Possessor Ascension construction, can antecede a Quantifier as seen in (22), which is taken from Chun (1986).

- (22) *Ki cikkong-i sonkalak-i kikyey- ey*  
 the worker- NOM finger- NQM machine-LOC

*seys-i cal-li- et- ta.*

3- NOM cut-PAS-pst-ind

'Three fingers of the worker were cut on the machine.'

(also irrelevantly: 'The fingers of three workers were cut on the machine.')

In (22), *cikkong*, the initial Possessor, is ascended to subject placing the head of the initial subject *sonkalak* en chomage; nevertheless the latter nominal can antecede a Quantifier.<sup>15</sup> Such data may indicate that acting Is (i.e., final Is and I-chomeurs) can antecede Quantifiers. However, the I-chomeur of a Passive construction cannot antecede a Quantifier as seen in (23).

- (23) *I chaek-in haksaeng-eyiyhaese (\*motu*  
 this book- TOP student- by all  
*ilk- hi- et- ta.*  
 read-PAS-pst-ind  
 'This book was read by (all) the students.'

In summary, while I-chomeurs in Ascension and Union constructions can antecede Quantifiers, I-chomeurs in Advancement constructions (i.e. Passive) cannot.

While this generalization is statable in terms of grammatical relations, it certainly is not insightful. Furthermore, the difference between the two classes of I-chomeurs is obviously correlated with surface case — the former being in the NOM; the latter being in an OBL (or alternatively DAT) case. This leads to the conclusion that it is the surface of the I-chomeur which determines its ability to sanction Quantifiers, an unfortunate conclusion considering the evidence against surface case given in the previous section.

Alternatively, it would be possible to state a condition in terms of *both* grammatical relations and surface case as follows:<sup>16</sup>

- (24) A nominal which sanctions Quantifiers is either:  
 i. a final subject or a final object  
 or ii. in the NOM or ACC case.

However, such a statement again seems to be missing some generalization about the class of nominals which sanction Quantifiers.

5. *An Alternative Approach: Constituent Structure.*

Since neither surface case nor grammatical relations lead to an adequate statement of a rule of possible antecedents of Quantifiers, it is worthwhile to consider some alternative approaches; here I suggest one alternative based upon constituency structure. To summarize the requirements of an adequate account as discussed above; first, in simple clauses, we need to reference only nominals which are in the NOM and ACC cases — that is, subjects, objects, and subject and object chomeurs (except for advancement chomeurs in Passives); second, in complex clauses, we need to reference nominals that are final subjects or objects — that is, nominals which would have been in the NOM or ACC case if this had been their last relation.<sup>17</sup> In other words, we need some abstract approach other than grammatical relations which could delineate nominals which would appear in the NOM and ACC case as opposed to nominals which would appear in the DAT or some OBL(ique) case.

Taking simple clauses first, NOM and ACC marked nominals appear to have a different constituent structure than nominals in other cases; that is, while NOM and ACC are true case marking suffixes attached to a nominal to form an NP, DAT and OBL cases are postpositions which form with the preceding NP a PP. I can give two arguments for this dichotomy. First, it is a well-known fact that NOM and ACC case is frequently dropped; DAT and OBL are never dropped, however, as shown in (25):

- (25) *John(-il Ø) pap(-il Ø) sonkalak(-ilol \*Ø)*  
 J.- NOM/Ø rice- ACC/Ø finger- with/Ø  
*mek-et- ta.*  
 eat- pst-ind  
 'John ate rice with his fingers.'

Second, as mentioned in section 3, NOM and ACC case do not co-occur with TOP(ic) [cf. (20)]. However, DAT and OBL marking do co-occur with TOP, as seen in (26):

- (26) *Sunae-eykey-nin nae-ka chaek-il*  
 S.- DAT-TOP I- NOM book- ACC  
*cu- et- ta.*  
 give-pst-ind  
 'To Soon Ae, I gave a book.'

If we take DAT and OBL to be postpositions, they contain important struc-

tural (and semantic) information and therefore are obligatorily present in the clause.

Returning to Quantifiers, a statement concerning possible antecedents can be given in structural terms, as in (27):

- (27) Only nominals which are not contained within a Postpositional Phrase can antecede Quantifiers.

This correctly accounts for the clause-level data; for example, *l-chomeurs* in the NOM case — but not *l-chomeurs* in DAT or OBL, which would be NPs within PPs — would be possible antecedents; though the task remains of justifying the structure posited for each NP.<sup>18</sup>

It should be noted that a generalization such as (27), while not entirely incompatible with a Relational Grammar of Korean, which presumably would require some account of constituent structure — at least on the surface level, is nevertheless unprecedented in the RG literature. In contrast, within the theory of Government/Binding, (27) is not only a possible generalization but also an expected one. The Korean data is, in fact, parallel to the Italian data discussed by Belletti (1982), who gives the following explanation for the fact that NPs embedded in a PP cannot antecede Quantifiers: Floated Quantifiers, being anaphors, are subject to Binding Condition A, which requires the antecedent to c-command the Quantifier; taking a strict definition of c-command, since NPs embedded in a PP are within a branching structure, they cannot c-command a Floated Quantifier.

The contrast between the two frameworks is seen more clearly when data involving complex clauses is taken into account. As discussed in section 3 above, in some instances there is no possible antecedent with the appropriate surface case, for example the Causative in (19) above. In order for a generalization such as (27) to account for the data in (19), a “ghost” consisting of an NP which is not embedded within a PP must be posited. Within G/B, an empty NP (either a base-generated empty category or a trace of a movement rule) could be posited to fill the role of subject of the embedded clause. Within RG, a single nominal, presumably with only one constituent structure assigned to it, would bear the relationships of both final downstairs subject and final upstairs indirect object. Since its surface Case is DAT, it would be assigned a constituent structure of an NP within a PP; thus, the condition in (27) would not be met and (19) would be predicted to be ungrammatical. Thus, an analysis within RG could not take advantage of the generalization in (27) without some modification of the

theory.

It should be pointed out that a G/B analysis is not without its problems, either. Specifically, Quantifiers are not like other anaphors with respect to possible antecedents. For example, the Reflexives in (28) and (29) below are anteceded by nominals which are embedded within PPs, showing that the same notion of c-command cannot be relevant to all anaphors.

- (28) *Sensaengnim-eykey casin-iy yunyensicel-i*  
 teacher- DAT self- GEN childhood- NOM  
*saengkakn-at- ta*  
 remember-pst-ind

'The teacher remembered his own childhood days.'

- (29) *Ki chosanghwa-ka Mary-eiyhaese casin-iy*  
 the portrait- NOM M.- by self- GEN  
*cip- eyse kili- eci- et- ta.*  
 house-in draw-PAS-pst-ind

'The portrait was painted by Mary in her own house.'

Belletti (1982) points out a parallel problem in Italian and offers a tentative solution, which I will not repeat here, which would carry over to Korean. Nevertheless, some explanation of why Quantifiers differ from other anaphors with respect to the constituency of possible antecedents must be given.

## 6. Conclusion.

This paper has discussed externally floated Quantifiers, which I take to be base-generated anaphors (that is, they do not form a constituent with their antecedents at any level of structure), with the purpose of delineating the nominals which serve as possible antecedents. An examination of the data has led to the following generalization: first, in simple clauses, nominals in the NOM or ACC case can antecede Quantifiers; second, in complex clauses, Quantifiers in the embedded clause can be anteceded by the final subject or object of that clause even if that nominal does not appear in the NOM or ACC case at the surface level.

Three alternative formulations have been discussed. First, Shibatani's analysis in terms of surface case was rejected because of the second class of data above. Second, a formulation in terms of grammatical relations was considered; it was shown that the second class of data could be handled eas-



ily. The problem here was that a broad treatment of Korean data revealed that NOM-marked l-chomeurs but not other l-chomeurs could antecede Quantifiers, making a generalization in terms of grammatical relations somewhat awkward. Finally, I considered an approach in terms of constituent structure, showing that a generalization was possible which other approaches seemed to miss: only NPs which are not embedded within PPs can antecede Quantifiers.

Furthermore, while this generalization is compatible with theories like Government/Binding which take constituency as a central concept, this generalization is currently impossible in a theory like Relational Grammar which in its present form pays little heed to constituent structure. Whatever the theory, an explanation of why some NPs — but not others — appear within PPs must be given.

## NOTES

1) I would like to thank the members of the Korean syntax group at SUNY at Buffalo for their help in constructing and discussing the data herein — especially Soon Ae Chun, Soonja Choi, and Cheong Youn. Any errors in data or analysis remain my own responsibility, however. I would also like to thank Judith Aissen, Young-Se Kang, Susumu Kuno, William O'Grady, and John Whitman for comments.

2) Shibatani deals with both Japanese and Korean; see Kuno (1978) for extensive discussion of the Japanese data.

3) The following abbreviations are used in glossing the data:

ACC	Accusative
CLAS	Classifier
cmp	complementizer
DAT	Dative
GEN	genitive
imp	imperative
ind	indicative mode
INSTR	instrumental
LOC	Locative
NOM	Nominative
PAS	passive
pl	plural
pst	past
TOP	topic

4) Korean is unlike Japanese in this respect since the floated Quantifier in Japanese is not case marked. In fact, I think that floated Quantifiers with case are very rare. David Perlmutter has pointed out to me that some Slavic languages — for example, Slovenian and Czech — have such Quantifiers.

5) I have excluded from these data cases where the Quantifier phrase also includes a classifier (e.g., (i)); external float (with or without case marking) is possible in this case as well, as seen in (ii):

- (i) *Nae-ka yeset myeng-iy sonnim-il chotae- ha-yet-ta.*  
 I- NOM 6 CLAS-GEN guest- ACC invitation-do-pst-ind  
 'I invited six (people) guests.'
- (ii) *Nae-ka sonnim-il yeset myeng(-il) chotae-ha-yet-ta.*  
 guest- ACC 6 CLAS- ACC  
 'I invited six (people) guests.'

However, a preliminary analysis of the data indicates that externally floated Quantifiers with Classifiers parallels the data without Classifiers given here. Note that in many of the examples below, the presence of a classifier would disambiguate potential readings. Also many of the examples below would, in fact, be better if the Classifier were present.

6) Henceforth when successive examples have the same English gloss, I will not repeat it.

7) Note that *chaek* cannot antecede the Quantifier because it is definite as seen by the demonstrative *i*; apparently only indefinites can antecede Quantifiers.

8) In the version of (4b) without the postposition, some speakers — but not others — get the irrelevant reading of 'This book was completely read by the students.'

9) Such preferences are a typical property of anaphors. For example, sentences with the reflexives *casin* and *caki* often have favorite readings; in (i) *Mary* is the preferred antecedent of *caki* while in (ii) *John* is the preferred antecedent of *casin*.

- (i) *John-i Mary-ka onil caki-iy pang-ey tileka-key*  
 J.- NOM M.- NOM today self-GEN room-LOC enter-emp  
*ha-yet-ta.*  
 do-pst-ind

(preferred:) 'John made Mary go in her room today.'

(secondary:) 'John made Mary go in his room today.'

- (ii) *John-i Mary-ka onil casin-iy pang-ey tileka-key ha-yet-ta.*  
 self-GEN

(preferred:) 'John made Mary go in his room today.'

(secondary:) 'John made Mary go in her room today.'

10) See Gerdts (1985) for a discussion of this type of Causative.

11) See section 2 for a discussion of the structure of these clauses.

12) Note that in the data discussed by Shibatani externally floated Quantifiers appear without case marking.

13) This argument assumes that a structure involving Passive at an earlier level followed by indirect object-to-object advancement at a later level is impossible. In fact, I think that such a structure is impossible in Korean because indirect object-to-object advancement is limited to levels of structure which are transitive.

14) See Gerdts (1986) for a discussion of Causative Clause Union in Korean.

15) See Chun (1986) or Gerdts (1986) for a more complete discussion of Possessor Ascension in Korean.

16) This is essentially Kuno's conclusion with respect to Japanese Quantifier Float.

17) There are also some cases, which I have disregarded for simplicity's sake, where chomeurs in complement clauses antecede Quantifiers.

18) This analysis does not carry-over straightforwardly to Japanese since there appear to be examples where DAT marked nominals (which would presumably be PPs by arguments parallel to the ones given for Korean) nevertheless antecede Quantifiers. For example, the following clause is given by Kuno (1978, p. 255):

- (i)        (?) *Tomodati ni sigonin tegami o kaita.*  
               friends        several letter        wrote  
               'I wrote letters to several friends of mine.'

In this respect, Japanese is parallel to French as discussed in Jaeggli (1982).

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