

THE SYNTAX OF KOREAN ANAPHORA*

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1. Introduction

From the earliest work on anaphora in transformational grammar, it has been assumed that the principles governing the organization of pronoun-antecedent¹ relationships make reference to abstract features of structure. Accordingly, attempts to characterize the syntax of anaphora have exploited concepts ranging from command (Langacker 1966) and the cycle (Ross 1969) to K-command (Lasnik 1976), c-command (Reinhart 1981) and governing category (Chomsky 1981). In recent work (e.g., O'Grady 1983a, b), I have suggested that this type of approach is ill conceived and that the syntax of pronoun-antecedent relations can be better analyzed in terms of the interaction between word order and a single semantic contrast. The purpose of this paper is to show that the Korean anaphoric elements *ku* and *caki* lend themselves to a similar analysis.

2. The Definite Pronoun *ku*

In recent decades, Korean has been developing an overt third person definite pronoun (*ku*) which has come to be employed quite extensively in the written language although it is hardly ever used in colloquial speech. Because the development of a definite pronoun in Korean is often attributed to the influence of Western literature (Kee Moon Lee 1978), it makes sense to compare the syntax of *ku* with that of its English counterparts. I will therefore briefly outline the salient features of my analysis of English anaphora before turning to the Korean facts.

The key element in my analysis of English anaphora is the contrast between core and peripheral elements outlined in (1).

- (1) In any clause, the core consists of the nouns and pronouns whose semantic function is linked to a verb. The periphery consists of all other nominal expressions.

For the purpose of this discussion, I will recognize only three semantic functions for nominals, namely that of grammatical term (subject or object), adverbial modifier

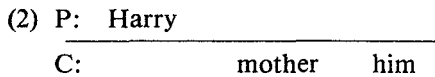
*This paper could not have been written without the help of Sook Whan Cho, who not only collected the grammaticality judgments used in the first part of this study but also provided invaluable advice and suggestions throughout the course of my work.

¹I will use the term 'antecedent' in a very broad sense to refer to the nominal upon which a pronoun is dependent for its interpretation on this view then, *which man* is the antecedent of *his* in (i) even though it is not, strictly speaking, a referring expression.

(i) Which *man* saw *his* wife?

(e.g., the locative NP in *I sat near John* and adjectival modifier (e.g., the genitive). Of these, the first two semantic functions are obviously linked to the presence of a verb and will therefore be associated with core nominals. In contrast, nominals serving as adjectival modifiers will only require the presence of another noun to fulfill their semantic function and will therefore count as peripheral elements.

As an illustration of the way in which the core-periphery distinction is applied, consider the English sentence *Harry's mother criticized him*. In this sentence, *mother* and *him* are in the core since each bears a grammatical relationship (subject and object, respectively) to the verb *criticize*. The nominal *Harry*, on the other hand, is in the periphery since it bears a semantic relation (genitive) to the adjacent nominal rather than to the verb. These facts can be represented in the diagram (called a computational record (CR)) depicted in (2). (P = periphery; C = core).



Subject to minor refinements to be introduced in Section 3, I will assume that the CR is constructed from left-to-right with elements being entered in it as soon as their categorial status (core vs. periphery) has been determined. If we also assume that the categorial status of nominals is for the most part locally determined by inflections and immediate context, linear order in surface structure will determine order of entry in the CR. This is what happens in (2), which not only indicates the categorial status of the relevant NPs, but also depicts their relative ordering in surface structure.

The major principle governing the organization of pronoun-antecedent relations in English can be formulated as the Precedence Constraint (PC) of (3).

- (3) Precedence Constraint (PC):
 A core pronoun cannot precede its antecedent in the computational record (CR).

The applicability of the PC can be illustrated in a preliminary way with the help of sentences like (4)-(7). (Italic is used to indicate the intended anaphoric relationships).

- (4) *Harry's* mother criticized *him*.
 (5) *Harry* criticized *his* mother.
 (6) *His* mother (often) criticized *Harry*.
 (7) **He* (often) criticized *Harry's* mother.

Since (4) and (5) are cases of forward pronominalization in which the pronoun follows the antecedent, they will naturally comply with the PC and they need not concern us further here. The sentences of (6)-(7) are of considerably more interest, however, as the CRs of (6') and (7') show.

- (6') P: His
 C: mother Harry
- (7') P: Harry's
 C: He mother

Notice that (7'), but not (6'), is characterized by the occurrence of a core pronoun before its antecedent. This accounts for the contrast in the grammaticality of the corresponding sentences.

Consider next sentences (8)-(9), in which the pronoun is part of an adverbial PP.

- (8) *We sat near *him* at *John's* party.
 (9) ?*I was seen with *him* in *John's* car.

Although these sentences are perhaps not as deviant as (7), they seem less than fully acceptable. Significantly, this deviance is predicted by the PC since the pronoun will count as a core element by virtue of its locative function (which makes it an adverbial modifier). A sentence like (8), for example, will therefore have the CR depicted in (8'), in which the core pronoun *him* precedes its antecedent.

- (8') P: John's
 C: we him party

For further discussion of the syntax of English anaphora, readers are referred to the papers cited above.

Turning now to Korean,² let us first attempt to determine the applicability of the PC to the simple sentences exemplified in (10)-(12). More complex structures as well as the effect of scrambling will be discussed below.

- (10) *John-uy* chinkwu-ka *ku-lul* pipanhaetta.
 G friend N him A criticized
 '*John's* friend criticized *him*.'
- (11) *ku-uy* chinkwu-ka *John-ul* pipanhaetta.
 his G friend N A criticized
 '*His* friend criticized *John*.'
- (12) **Ku-ka* *John-uy* chinkwu-lul pipanhaetta.
 he N G friend A criticized
 '*He* criticized *John's* friend.'

As expected, (10) is acceptable since the pronoun follows its antecedent. The really interesting contrast is between (11) and (12), whose CRs will resemble (11') and (12'), respectively.

²Data pertaining to *ku* is based on an extensive survey of fourteen unilingual native speakers of Korean living in Seoul. The system of Yale romanization is used to transcribe Korean examples.

(11') P: ku-uy John-ul

C: chinkwu-ka

(12') P: John-uy

C: ku-ka chinkwu-lul

Notice that the pronoun is a core element in (12) where it functions as subject of the verb, but not in (11') where it is a noun modifier. As the PC would predict, only (11) is acceptable since (12) exhibits a pattern in which a core pronoun precedes its antecedent.

The sentences of (13)-(15) provide other examples of this contrast. (Because the distinctions relevant to the PC can be easily identified in the sentences themselves, I will refrain from representing the CRs in these and other straightforward cases).

(13) Wuli-ka *ku-uy* pwumonim-kkey *John-uy* cim-ul tulietta.
 we N his G parents D G luggage A gave
 'We gave *his* parents *John's* luggage.'

(14) Kutul-i naeil *ku-uy* sae samwusil-ul *John-ey*key
 they N tomorrow his G new office A D
 poyecwul-kes-ita.
 show
 'They will show *his* new office to *John* tomorrow.'

(15) *Wuncenswu-ka *ku-lul* *John-uy* cip kunchey naeliecwuetta.
 driver N him A G home near dropped off.
 'The driver dropped *him* off near *John's* home.'

Notice that in the ungrammatical (15), but not the acceptable (13)-(14), a core pronoun precedes the intended antecedent.

An interesting difference between English and Korean manifests itself in the case of locative phrases. As noted above, the English sentence in (8) (repeated here) violates the PC and is ungrammatical. Curiously, however, comparable sentences in Korean are acceptable.

(8) *We sat near *him* at *John's* party.

(16) Wuli-ka *ku-uy* yep-eyse *John-uy* tongsaeng-ul po-as-ta.
 We N his G side L G sister A saw
 'We, near *him*, saw *John's* sister (lit. 'near *his* side').'

Notice that in Korean the phrase *near him* is expressed literally as *near his side* and that the pronoun occurs in the genitive case. This marks it as a peripheral element, avoiding any violation of the PC in sentences like (16).

Turning now to multi-clausal utterances, our first problem must be to determine how the core-periphery distinction is to be interpreted since the definition outlined in (1) could be applied to any one of the clauses making up a complex sentence.

The right approach in these cases seems to be to assume that the relevant core-periphery distinction is the one defined in the smallest clause containing both the pronoun and the intended antecedent. Thus, in a sentence like (17), the core-periphery distinction will be defined in the embedded clause where the pronoun *ku*, which precedes its antecedent, will be identified as a core element. This will result in a violation of the PC and the sentence will correctly be marked as ungrammatical.

- (17) *Mary-ka [*ku*-ka *John*-uy chinkwu-lul coahaetta ko] malhaetta.
 N he N G friend A like said
 ‘Mary said that *he* liked *John’s* friend.’

Consider now utterances like (18)-(21) in which the smallest clause containing both the pronoun and the intended antecedent is the full sentence.

- (18) **Ku*-ka *John*-i aputa-ko malhaetta.
 he N N sick said
 ‘*He* said that *John* was sick.’
- (19) *Ku*-uy chinkwu-ka *John*-i aputa-ko malhaetta.
 his G friend N N sick said
 ‘*His* friend said that *John* was sick.’
- (20) **Uysa*-ka *ku*-eykey *John*-i kamkiew kellinketkattako malhaetta.
 doctor N him D N cold catch seem told
 ‘The doctor told *him* that *John* seemed to have a cold.’
- (21) *Wuli*-ka *ku*-uy yetongsaeng-eykey *John*-i aputa-ko malhaetta.
 we N his G sister D N sick told
 ‘We told *his* sister that *John* is sick.’

Notice that in (18) and (20), but not (19) and (21), the pronoun *ku* is a core element (bearing a grammatical relationship to the matrix verb). Since the pronoun also precedes its antecedent in (18) and (20), there is a violation of the PC and these sentences will be correctly ruled out as ungrammatical.

Next, consider the relative clause structures of (22)-(24).

- (22) [*Ku*-ka coahaetten] yeca-ka *John*-ul paesinhaetta.
 he N loved REL girl N A betrayed
 ‘The girl *he* loved betrayed *John*.’
- (23) ?[*Ku*-lul anun] pwin-i *John*-ul paesinhaetta.
 he A know REL woman N A betrayed
 ‘The woman who knew him betrayed *John*.’
- (24) **Ku*-ka [*John*-ul paesinhaetten] yeca-lul coahaetta.
 he N A betray REL girl A loved
 ‘*He* loved that girl who betrayed *John*.’

In all three cases, the clause relevant for the definition of the core-periphery

distinction corresponds to the full sentence. At this level, *ku* will be in the periphery in (22) and (23), where it does not bear a grammatical relationship to the verb *betray*, and can therefore precede its antecedent without violating the PC. In sentence (24), on the other hand, *ku* functions as a core pronoun (since it functions as subject of the verb in the main clause) and there is therefore a violation of the PC.

3. The Effect of Scrambling on Anaphora

Thus far, our discussion has been restricted to 'neutral' SOV structures. However, as is well known, Korean allows relatively free word order with the result that the precedence relationships among NPs can be changed quite drastically. Before attempting to determine the consequences of this phenomenon for the admissibility of anaphoric relations in Korean, let us first consider the effect of 'reordering' on the syntax of anaphora in English. Although space does not permit a thorough discussion of this matter here (but see O'Grady 1983a, b), the sentence of (25) illustrates the basic problem.

(25) *This *man*, *he* saw a picture of.

Notice that there is no way to determine the categorial status of *man* from the position it occupies in (25) and that it is necessary to identify the element to which it bears a semantic relationship before it can be assigned to the core or periphery. In the case of (25), *man* is part of the adjectival PP headed by *of* and will therefore ultimately be assigned to the periphery. However, on the assumption that the CR is constructed from left-to-right and that elements are only entered in it once their categorial status has been determined, the CR for a sentence like (25) will resemble (25') with *he* and *picture* preceding *man*. The reason for this is that the status of both *he* and *picture* can be determined (from their positioning) before it is ascertained that *man* is associated with the adjectival PP headed by *of*.

(25') P: _____ man
C: he picture

Notice that (25') constitutes a violation of the PC, thereby accounting for the ungrammaticality of the corresponding sentence.

A comparable state of affairs manifests itself in sentences like (26) where the categorial status of the fronted phrase (a core element) cannot be determined until the VP has been analyzed.

(26) *This *man*, *he* saw.

Because the categorial status of *he* can be determined from its preverbal position, construction of the CR from left to right will create the violation of the PC depicted in (26):

(26') P: _____
C: he man

An interesting difference between Korean and English is that Korean has a rich system of case inflection which all but ensures that the categorial status of NPs can be locally determined regardless of where they occur in their clause.³ This in turn ensures that reordering rules will change the precedence relationships that are crucial for the syntax of anaphora and predicts that scrambling will affect the acceptability of pronoun-antecedent relationships. Consider in this regard the sentences of (27).

- (27) a. Nae-ka *John*-uy os-ul ku-eykey kacietacwuetta.
 I N G clothes A him D brought
 'I brought *him John's* clothes.'
 b. ?*Nae-ka *ku-eykey John*-uy os-ul kacietacwuetta.
 c. ?**Ku-eykey nae-ka John*-uy os-ul kacietacwuetta.
 d. ?**Ku-eykey John*-uy os-ul nae-ka kacietacwuetta.
 e. *John*-uy os-ul nae-ka *ku-eykey* kacietacwuetta.
 f. *John*-uy os-ul *ku-eykey* nae-ka kacietacwuetta.

Notice that these grammaticality judgments are precisely what we would expect given the hypothesis that nominals can be entered in the CR in the same order that they occur in surface structure. Thus, (27a,e,f), in which the anaphor follows its antecedent, are all acceptable while (27b,c,d), in which a core pronoun precedes its antecedent, are all ill-formed. The sentences of (28)-(29) provide another example of this.

- (28) a. ?*Uysa-ka *ku-eykey John*-i kamki-ey kellinket-katta-ko malhaetta.
 doctor N him D N cold catch seem said
 'The doctor told *him* that *John* seemed to have a cold.'
 b. ?**Ku-eykey uysa-ka John*-i kamki-ey kellinket-katta-ko malhaetta.
 c. ?**Ku-eykey John*-i kamki-ey kellinket-katta-ko uysa-ka malhaetta.
 d. Uysa-ka *John*-i kamki-ey kellinket-katta-ko *ku-eykey* malhaetta.
 e. *John*-i kamki-ey kellinket-katta-ko uysa-ka *ku-eykey* malhaetta.
 f. *John*-i kamki-ey kellinket-katta-ko *ku-eykey* uysa-ka malhaetta.
- (29) a. *John*-uy iwuterun-cwungey enu pwun-kkey ney-ka *ku*-lul
 G neighbour among which person D you N him A
 sokaehaetnunya?
 introduced
 'Which neighbours of *John* did you introduce *him* to?'
 b. **Ku*-lul *John*-uy iwuterun-cwungey enu pwun-kkey
 him A G neighbour among which person D

³Because scrambling in Korean is typically clause-bound, the categorial status of displaced phrases will be determined with respect to the clause in which they occur in surface structure. This avoids the problem found in English sentences like (i), where *John* is moved to sentence-initial position from an embedded clause.

(i) *John*, I knew Mary likes.

In structures like these, case alone would not suffice to determine the categorial status of the fronted phrase.

ney-ka sokaehaetnunya?
you N introduced

Certain complications arise in cases where the pronoun occurs in subject position. Consider

- (30) a. **Ku-ka John-uy sacin-ul kaciewatta.*
he N G picture A brought
'He brought *John's* picture.'
b. ?*John-uy sacin-ul ku-ka kaciewatta.*
- (31) a. **Ku-ka ecey John-uy chinkwu-lul chotaehaetta.*
he N yesterday G friend A invited
'Yesterday *he* invited *John's* friend.'
b. *John-uy chinkwu-lul ecey ku-ka chotaehaetta.*
- (32) a. **Ku-ka John-uy ttal-uy chinkwu-tul cwung etten chinkwu-lul*
N G daughter friends among which friend
ceyil coahanunya?
best like
'Which friend of *John's* daughter does *he* like best?'
b. *John-uy ttal-uy chinkwu-tul cwung etten chinkwu-lul ku-ka ceyil*
coahanunya?

All fourteen of my informants accepted (31b) and (32b), as the theory would predict. However, only two-thirds accepted (30b) and other speakers whom we have consulted feel uncomfortable with even (31b), suggesting that it is far from impeccable. However, it has been suggested to me that these sentences can be improved by putting a topic marker on the fronted phrase as in (33) or by replacing *ku* by the reflexive *caki* as in (34).

- (33) *John-uy sacin-un ku-ka kaciewatta.*
G picture TOP he N brought
- (34) *John-uy sacin-ul caki-ka kaciewatta.*
G A self N

These facts suggest that anaphora per se is not ruled out in these cases, although it is apparently less free than in the patterns examined above. A possible explanation for this contrast may lie in considerations relating to the empathy hierarchy proposed by Kuno (1975: 322) and stated here as (35).

(35) **Surface Structure Empathy Hierarchy:**

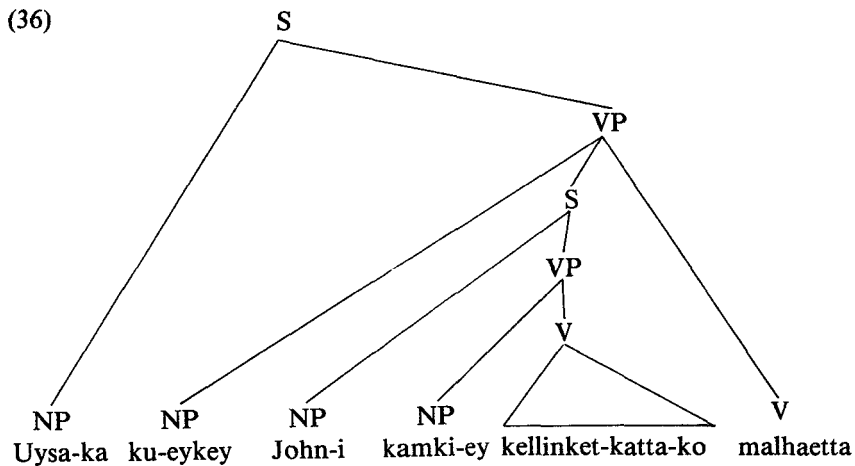
It is easiest for the speaker to empathize with the referent of the subject and next easiest to empathize with the referent of the object.

We might assume that since the speaker empathizes most with the referent of the

subject, a pronoun should not be used in this position if the person in question is to be referred to more directly by a lexical NP elsewhere in the clause (which is precisely what happens in the (a) versions of (30)-(32)). Support for this view comes from the well known fact that subjects in Korean enjoy special prominence in the network of anaphoric relations, as manifested by the fact that they are typically the only elements which can bind a reflexive (see below).

A major advantage of the approach to Korean anaphora which I have been sketching is that it does not depend on the configurational properties of syntactic structure and is therefore applicable even to scrambled sentences in which the usual constituent structure is presumably destroyed. To see the value of such an approach, let us briefly compare it with an analysis in which the admissibility of anaphoric relations in scrambled sentences is determined in deep structure in accordance with Reinhart's (1981) principle prohibiting a pronoun from c-commanding its antecedent.

The sentences of (28), whose deep structure presumably resembles (36), provide an interesting case for comparison of the two approaches.



Notice that the pronoun c-commands its antecedent here since the first branching node above *ku* (VP) also dominates *John*. This leads to the prediction that all variants of (36) are unacceptable. However, this prediction is incorrect since all fourteen of my informants accepted (28d,e,f). Significantly, this is precisely what the Precedence Constraint predicts since these are the cases in which the core pronoun follows rather than precedes its antecedent.

There are of course numerous other patterns of pronoun-antecedent relationships in Korean which have not been touched upon here. However, the preliminary work which I have done on these cases strongly suggests that they can be subsumed under the PC, given a slightly refined version of the assumption that NPs can be entered

in the CR in the same order that they occur in surface structure. Rather than attempting to deal with these matters here, however, I will turn my attention to the place of the reflexive in the Korean system of anaphora.

4. Reflexives in Korean

Korean includes several closely related reflexive-like elements including *caki*, *caki-cashin* and *ku-cashin*. Although the syntax of all three elements seems to be very similar, I will restrict my remarks to *caki*, which is the most commonly used reflexive element. Space does not permit a thorough analysis of the syntax of reflexivization in this paper and I will concentrate my remarks on establishing the relevance of the core / periphery contrast to this phenomenon. Many of the complex structures dealt with by Lee (1973) and others will be ignored here, pending treatment in the longer paper I am currently preparing in collaboration with Sook Whan Cho.

Let us begin our discussion by considering two typical contexts in which the reflexive is required.⁴

- (37) a. *John-i caki-lul pipanhaetta.*
 N self A criticized
 ‘John criticized *himself*.’
- b. *John-i kong-ul caki-eykey tencietta.*
 N ball A self D threw
 ‘John threw a ball to *himself*.’

The CRs corresponding to these sentences can be depicted as follows.

- (37) a. P: _____
 C: John self
- b. P: _____
 C: John ball self

Assuming these cases to be representative, reflexives will be required under the conditions stipulated in (38).

- (38) The Reflexivization Requirement (RR):
 The reflexive is required whenever a pronoun and its antecedent are both in the core.

We will assume that the RR, like the PC, operates on the smallest clause containing both the pronominal and its antecedent. Thus, in a structure like (39), the reflexive will be required if the pronoun is bound by NP₂ : since both phrases are core elements in the smallest clause containing them (i.e. the subordinate clause).

⁴Judgments in this section have been provided by my research assistant (a native of Seoul) in consultation with other speakers of Korea.

(39) NP₁ [NP₂ PRO V] V

If the pronoun is bound by NP₁, on the other hand, the reflexive will not be necessary (although it is possible, as we shall see) since only the antecedent is a core element at the level of the full sentence — the smallest clausal unit containing both elements. Sentence (40) provides an actual example of this.

- (40) John-i [Bob-i caki-lul/ku-lul poatta-ko] malhaetta.
 N N self A him A saw said
 ‘John said that Bob saw self/him.’

If the object pronoun in the lower clause is taken to be bound by *Bob* (the other core element in that clause) it must be reflexive in form. If, on the other hand, the antecedent is *John*, either the reflexive or the definite pronoun can be used.

Turning now to some additional cases where the reflexive is optional, consider the following patterns of ‘forward reflexivization.’

- (41) John-i wuli-ka caki-lul poatta-ko malhaetta.
 N we N self A saw said
 ‘John said that we saw *self*.’
- (42) John-i caki pang-ey memwuletta.
 N self room at stayed
 ‘John stayed in *self*’s room.’
- (43) John-i caki-ka swukcey-lul kkunnaen hwu-ey cenyek-ul cwunpihaetta.
 N self N homework A finish after supper A fixed
 ‘John fixed supper after *self* finished homework.’
- (44) ?John-i san chaek-i caki-lul kippukeyhaecwuetta.
 N bought book N self A pleased
 ‘The book that *John* bought pleased *self*.’
- (45) ?John-i sang-ul talkeranun soshik-i caki-lul nollakeyhaetta.
 N prize A would win news N self A surprised
 ‘The news that *John* would win the prize surprised *self*.’
- (46) ?John-i cip-ey on hwu caki-ka cenyek-ul cwunpihaetta.
 N home at come after self N supper A fixed
 ‘After *John* came home, *self* fixed supper.’
- (47) ?John-i san chaek-i caki-uy chinkwu-lul kippukeyhaecwuetta.
 N bought book N self A friend A pleased
 ‘The book that *John* bought pleased *self*’s friend.’
- (48) ?John-i sang-ul talkeranun soshik-i caki-ka saranghanun yeca-lul
 N prize A would win news self N love girl A
 nollakeyhaetta.
 surprised

'That *John* would win a prize surprised the girl *self* loved.'

Notice that in the smallest clause containing both the pronoun and the intended antecedent, there are no cases in which both the reflexive and its antecedent are core elements. Rather, in (41)-(43) the reflexive is a peripheral element and its antecedent a core nominal while in (44)-(46) the converse is true. In (47) and (48), on the other hand, both the reflexive and its antecedent are peripheral elements at the level of the full sentence. Significantly, many Koreans apparently find sentences (44)-(48), in which the reflexive has a peripheral antecedent, to be somewhat unnatural. I will return to this matter below.

Turning now to cases of optional backward reflexivization, let us consider sentences (49)-(52), in which the reflexive takes a core antecedent, and sentences (53)-(55), in which the reflexive has a peripheral antecedent.

- (49) *Caki-ka apunkes-i John-ul sulpukeyhaetta.*
 self N sick is N A made sad
 'That *self* was sick made *John* sad.'
- (50) *Caki-ka san chaek-i John-ul kippukeyhaetta.*
 self N bought book N A pleased
 'The book that *self* bought pleased *John*.'
- (51) *Caki-ka cip-ey on hwu-ey John-i cenyek-ul cwunpihaetta.*
 self N home at come after N supper A fixed
 'After *self* came home, *John* fixed supper.'
- (52) *Caki chinkwu-ka John-ul culkekeyhaecwuetta.*
 self friend N A pleased
 '*Self*'s friend pleased *John*.'
- (53) ??*Caki chinkwu-ka John-uy emenim-ul culkekeyhaetulietta.*
 self friend A G mother A pleased
 '*Self*'s friend pleased *John*'s mother.'
- (cf. *Caki chinkwu-ka John-uy yakcem-ul cicekhaecwuetta.*
 self friend N G weakness pointed out
 '*Self*'s friend pointed out *John*'s weakness.'
- (54) ??*Caki-ka san chaek-i John-uy chinkwu-lul culkekeyhaecwuetta.*
 self N bought book N G friend A pleased
 'The book that *self* bought pleased *John*'s friend.'
- (cf. *Caki-ka san panci-ka John-uy pwuin-ul culkekeyhaecwuetta.*
 self N bought ring N G wife A pleased
 'The ring that *self* bought pleased *John*'s wife.)'
- (55) ??*Caki-ka imshincwungiranun sashil-i Mary-ka kyoceyhaten saram-ul*
 self N is pregnant fact N N was dating man A

nollakeyhaetta.

surprised

'That *self* was pregnant surprised the man *Mary* was dating.'

Many Koreans seem to feel that (53)-(55) are quite marginal compared to (49)-(52). This is interesting because the reflexive elements in the marginal cases have peripheral antecedents while those in the more natural cases are linked with core nominals. The same seems to be true, although perhaps to a lesser extent, in the case of optional forward reflexivization — as I noted with respect to (44)-(48) above. This suggests that Korean may have a principle resembling (56).

(56) Naturalness Constraint:

A reflexive is most naturally construed with a core antecedent.

There is some reason to think that (56) exists in a somewhat stronger form in Japanese where sentences like (51)-(53) and (44)-(48) are apparently quite unacceptable (see, for example, N. McCawley (1976) and Inoue (1976)). We might suppose, then, that Japanese has the principle outlined in (57).

(57) A reflexive requires a core antecedent.

If the preceding remarks are correct even in their essentials, it would be possible to identify the following three types of reflexivization in Korean.

a. — core antecedent-core reflexive (e.g., (37))

These are the obligatory cases covered by the Reflexivization Requirement of (38).

b. — core antecedent-peripheral reflexive (e.g., (41)-(43))

— peripheral reflexive-core antecedent (e.g., (49)-(52))

These are the most natural type of optional reflexive, as predicted by the Naturalness Constraint of (56).

c. — peripheral antecedent-core reflexive (e.g., (44)-(46))

— peripheral antecedent-peripheral reflexive (e.g., (47)-(48))

— peripheral reflexive-peripheral antecedent (e.g., (53)-(55))

These are the less natural type of optional reflexive and fail to comply with the Naturalness Constraint.

Of the various combinations of core and peripheral antecedents and reflexives, only two are categorically ruled out, namely those in which a core reflexive precedes either a core or a peripheral antecedent. The sentences of (58)-(61) illustrate this.

(58) **Caki*-ka *John*-ul poatta.

self N A saw

'*Self* saw *John*.'

(59) **Caki*-ka *John*-uy chinkwu-lul pipanhaetta.

self N G friend A criticized

'Self criticized John's friend.'

(60) *Caki-ka John-i aputa-ko malhaetta.

self N N sick said

'Self said that John was sick.'

(61) *Caki-ka John-i coaha-nun yeca-lul pipanhaetta.

self N N like REL woman A criticized

'Self criticized the woman John liked.'

Notice that in all these cases a core pronominal precedes its antecedent. The simplest way to account for the ungrammaticality of these structures would therefore simply be to assume that reflexives are subject to the same Precedence Constraint which holds in the case of definite pronouns (see (3)).

Needless to say, reflexivization in Korean is subject to constraints other than the PC and the Naturalness Constraint. It is well known, for example, that there is a strong tendency for Korean reflexives to take as their antecedent a nominal which is subject of its clause.⁵ It seems reasonable to suggest that this tendency is related to the prominence of these elements for the speaker, as noted in our earlier discussion of the relevance of Kuno's empathy hierarchy for the syntax of the definite pronoun *ku*. If this is right, then the Naturalness Constraint will interact with empathy considerations to ensure that a core element in subject position will be the most favoured antecedent for a reflexive, all other things being equal.

Empathy or point of view, also seems to interact with the syntax of reflexivization in other ways. In an interesting paper, Chang (1977) argues that one of the major functions of the Korean reflexive is to indicate the person from whose perspective the sentence is presented. It is for this reason, Chang suggests, that the reflexive is significantly better than the definite pronoun in sentences like (60), where the topic marker indicates that the sentence represents Joe's point of view.

(62) Joe-nun $\left\{ \begin{array}{l} \text{caki} \\ \text{??ku} \end{array} \right\}$ —ka Sue-lul salangha-nun kes -i culkewetta.
 TOP N A love REL N happy

⁵It seems, however, that the constraint may be in the form of a preference rather than a requirement and can be overruled by a variety of semantic/pragmatic factors. As Ik-hwan Lee (1978:66) notes, the sentences of (i) are both ambiguous.

(i) a. John-i Tom-ul caki cip-eyse mannatta.

N A self house at met

'John met Tom at self's house.'

b. John-i Tom-ul caki-ka Chicago-ey watsul ttayey mannatta.

N A self N at came time met

'John met Tom when self came to Chicago.'

Moreover, sentences like (ii) are also admissible in Korean.

(ii) John-eykwanhan chaek-i (John-uy chaek-i) caki-lul kippukeyhaetta.

about book N G book N self A be happy

'A book about John (or John's book) pleased self.'

Such sentences are apparently not acceptable in Japanese.

'As for *Joe*, *he* was happy about his loving *Sue*.'

Conversely, in a sentence like (63) where it is clear that the point of view represented in the sentence is that of the speaker and not *Joe*, the definite pronoun is apparently preferred to the reflexive.

- (63) *Joe*-eykwanhaye malhacamyen, { ??*caki* } -ka Sue-lul salangha-nun
 concerning talking { ku } N A love REL
 kes]-i pwunmyenghayetta.
 Nclear

'Talking about *Joe*, it was clear that *he* loves *Sue*.'

Although topicality and point of view are overtly marked within the sentence in the case of (63) and (64), there are many other cases where they must be determined on the basis of earlier discourse as in the following passage cited by Chang.

- (64) Tancang-ul machi-n selwha kongcwu-nun kewul-ul hyanghaye
 make-up A finish REL Sulwaha princess TOP mirrorA towards

caki-uy elkwul-ul pichwue ponta. Pun-ul palu-ko
 self G face A reflect see face powder A apply and

 salccek-ul tasuli -ko ipswul-ul pwulkey mwuncilu-ko
 hair A arrange and lips A red rub and

 pichwiok kwikeli-lul kel-ko nani *caki* casin-ul *caki* -ka
 jade earring A hang and then self A N

 palapo-ato yepputa-ko ani malhalswu epsetta.
 look at even if pretty not say can not

'*Princess Sulwaha*, who finished make-up, faces the mirror and looks at the reflection of her face. After applying face powder, arranging the hair, putting on lipstick, and putting on jade earrings, *she* couldn't help saying that she was pretty, even though it was *she herself* that was looking at *herself*.'

Facts like these suggest that the role of topicality and point of view in the use of *caki* reflects the influence of discourse grammar rather than sentence level syntactic principles.⁶

Although it seems clear that the discourse principle proposed by Chang is needed

⁶Accordingly, I leave open the question of whether the elements bearing a topic marker should be analyzed in terms of the core/periphery distinction of whether they should be considered to lie outside the sentence proper. These and other matters are dealt with in a paper currently in preparation.

to account for the reflexivization facts in Korean, there is little reason to think that it could replace grammatical principles like the Precedence Constraint or the Reflexivization Requirement. Thus, utterances like (65), which violate the PC, are ungrammatical even though they comply with Chang's principle (since *caki* refers to the person whose viewpoint is represented in the sentence).

- (65) **John*-uy mal-ey uihamyen, *caki*-ka *John*-uy chinkwu-lul
 G words according to self G friend A

poatta-ko hanta.

saw

'According to *John* (literally, according to John's words/according to what John said), *self* saw *John's* friend.'

Moreover, sentences like (66) require the reflexive form in object position if the antecedent is *John* even though the sentence presents the viewpoint of the topicalized element, *Harry*. This fact is predicted by the *RR*, which requires the reflexive when a core pronoun has a core *antecedent*, but not by Chang's principle.

- (66) *Harry*-uy mal-ey uihamyen, *John*-i *caki*/**ku*-lul pipanhaetta-ko hanta
 G words according to N self him A criticized
 'According to *Harry*, *John* criticized *self* */*him*.'

Even though it is clear that the use of reflexives in Korean is sensitive to more than just sentence structure, there may well be a certain continuity between grammatical principles formulated in terms of the core/periphery distinction (i.e. the PC, the RR and the Naturalness Constraint) and discourse principles which refer to notions like point of view and empathy. The key to establishing this continuity lies in the assumption that the Korean reflexive is used to encode a general notion of centrality which can manifest itself at different linguistic levels. Since the sentence is organized around the verb (or at least this is what is generally assumed), centrality in sentence grammar will manifest itself in terms of the core-periphery distinction, with the more central elements bearing a semantic relation to the verb. At the level of the speech embedded in discourse, on the other hand, centrality might well be defined in terms of point of view or empathy, with the referent of the subject or topic typically being the most prominent or central element.

The reflexive, one might suppose, has to meet conditions of centrality at each of these levels. Although there will be an overlap (e.g. topics and the entities with which the speaker empathizes are perhaps likely to be encoded as core elements), there is probably no one-to-one correspondence. This paper has been concerned exclusively with the way in which centrality manifests itself in sentence grammar (i.e., with the core/periphery distinction). Future work will have to be concerned with the role that other manifestations of this notion play in the syntax of Korean anaphora.

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