

Pronominal Anaphora in Korean

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0. This paper* attempts to suggest a possible analysis of anaphoric pro-forms in Korean, especially, in complement constructions, within the theory of generative grammar. This paper is organized as follows: in section 1 some of the previous insightful analyses will be examined. Some remaining problems and inadequacies in them will be pointed out. In section 2 I will do three things: first of all, I will investigate the distributional characteristics of Korean pro-forms. It will be argued that *casin* is the reflexive particle in Korean. Second, I will discuss a significant syntactic phenomenon of deletion in Korean grammar. Third, I will suggest an alternative analysis. A summary and conclusion will

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In this paper the following abbreviations are used:

COMP: Complementizer	DA: Dative Particle
DEC : Declarative	OP: Object Particle
PL : Plural Marker	Q : Question Particle
REL : Relative Marker	SP: Subject Particle
TP : Topic Particle	

In transcribing Korean sentences, the Yale romanization system is used.

be given in section 3

1.0. In this section, I will examine several previous works on the anaphoric pronominals in Korean, noting some difficulties or problems with them. A generally in the linguistic literature, however, that I point out some difficulties or problems with a certain analysis does not necessarily mean that that specific analysis is totally incorrect. Instead, it should be noted that many good observations can be found in every analysis I examine in this paper. As is well known, there are two different approaches in treating pronominals, namely, the transformational approach and the interpretive one. In the recent development of the anaphora theory (esp. interpretive) in English, we can note that several linguists (e.g., Jackendoff (1972) and Wasow (1974)) have attempted to characterize some of the common syntactic properties among reflexives, pronouns, and ϕ pro-form, by postulating a set of general conditions for the anaphoric relations¹. In treating Korean anaphora, D.-W. Yang (1975) and H.-B. Lee (1976), who assume a transformational approach, can be understood to have attempted to figure out the relationships among pronominals (esp. reflexives and pronouns), although their analyses do not seem to be totally correct². As will be discussed below (see (29) in sec. 1.2.1), C. Lee (1973) provides some explanations about the relationships between the ϕ pro-form and the reflexive. W.-C. Kim (1976) assumes an interpretive approach, while all of the other three postulate transformational rules of anaphora. I will discuss W.-C. Kim (1976) first, and then C. Lee (1973), D.-W. Yang (1975), and H.-B. Lee (1976).

1.1. W.-C. Kim devotes her whole dissertation (1976) to the issue of anaphora in Korean. As briefly mentioned above, she does not attempt to treat the problems of Korean anaphora collectively. In other words, she handles reflexives, pronouns, and ϕ pro-form separately. Though one may not be satisfied with this basic approach, her analysis of reflexive *caki*³ may be regarded as an interesting work in the sense that hers is the first attempt to formalize the subtle difference of grammaticality judgements in Korean syntax in terms of percentage. As a problem here, however, one may note that many people

¹ This point is irrelevant to the theoretical preference for a 'transformational approach' or an 'interpretive approach.' Jackendoff(1972:174-177) attempts to treat reflexivization and pronominalization in one token by formulating a set of conditions. Furthermore, he (1972:188-197) notes the generality of reflexivization, pronominalization, and the traditional rule of Equi. In Wasow(1974:92, also cf. I.-H. Lee, 1977a: 119), the pronominalization and the traditional Equi are no longer two separate processes.

² I will attempt to remedy their (esp. D.-W. Yang's) weakness and relate them to my analysis in sec. 2. Actually, D.-W. Yang (1975:67, also cf. (30a) below) assumes reflexivization and pronominalization to be two distinct rules. What I want to note in Yang (1975) is that he attempts to relate the reflexives and the pronouns in terms of Pro-deletion. As for my view on the notion of pronoun in Korean, cf. sec. 2.1. below.

³ As will be noted in sec. 2.1., I do not agree with the assumption that *caki* is the reflexive pronoun in Korean. Here, however, I use *caki* simply to examine the analyses presented in Kim (1976) and others.

may have different views about the alleged native speakers intuition (Kim, 1976:15, 66, 82) of the grammaticality judgement in many instances.

1.1.1. Kim's theory builds on the notion of 'Hierarchical and Left-Right Relationships of *caki*' with its possible antecedent (1976:11), which is understood to be another version of the traditional notion of command and precedence relations. Making use of these mechanisms, Kim develops several algorithms and necessary constraints to account for the 'native speakers intuition'. For illustration, let us examine some of her examples given in (1)⁴.

- (1) a. $\begin{array}{c} \text{80\%} \\ \swarrow \quad \searrow \\ \text{[}_{s_1}\text{Ann ka[}_{s_2}\text{Mary ka [}_{s_3}\text{caki ka ikin kes]} \text{]} \text{ lul anta ko] sayngkakhanta.]} \\ \text{SP} \quad \text{SP} \quad \text{self SP win COMP OP know COMP think} \end{array}$
 (lit.) 'Ann thinks that Mary knows that self won.'
- b. $\begin{array}{c} \text{40\%} \\ \swarrow \quad \searrow \\ \text{[}_{s_1}\text{Bob uy phyenci ka [}_{s_2}\text{Bill lul [}_{s_3}\text{caki kay ka totwukmacun kes]} \text{]} \text{ ka} \\ \text{'s letter SP OP self dog SP be stolen COMP SP} \\ \text{kepcuwnta ko] allyessta]} \\ \text{frightening let know} \end{array}$
 (lit.) 'Bob's letter informed that that self's dog was stolen is frightening Bill.'
- c. $\begin{array}{c} \text{0\%} \quad \quad \quad \text{90\%} \\ \swarrow \quad \quad \quad \searrow \\ \text{[[Ellen lul [caki ka tomangkan kes}_{s_3}] \text{]} \text{ ka nollakeyhayssta ko}_{s_2}] \text{Mary} \\ \text{OP self SP run away COMP SP surprized COMP} \\ \text{ka sayngkakhanta.}_{s_1}] \\ \text{SP think} \end{array}$
 (lit.) 'Mary thinks that that self ran away surprized Ellen.'

Kim's explanation of the above examples can be summarized as in (2).

- (2) a. In (1a) *Mary* (matrix subject) commands and immediately precedes *caki*: 100%.
- b. In (1a) *Ann* (higher matrix subject) commands but does not immediately precede *caki*, i.e., hierarchically one sentence higher than *Mary*: $100 - 10x$, where x is the number of clauses from *caki*⁵. Here $100 - 10 \times 2 = 80(\%)$.

⁴ (1a) is Kim's (13a), p. 14; (1b) is Kim's (21a), p. 26; (1c) is Kim's (45a), p. 71. Kim actually gives them in the form of trees. But, for convenience, I do not give the full tree, and irrelevant points are ignored. Unless necessary, the top-most S will not be indicated.

⁵ This algorithm, as it is given, presents problem from the beginning. If this algorithm applies to the *Mary-caki* pair, then the percentage must be 90%. To avoid this unwanted consequence, Kim should have a convention something like the following: The algorithm applies beginning from three or more clauses up. One may argue that this convention is very arbitrary. The same phenomenon occurs in (2d).

- c. In (1b) *Bill* (non-subject) commands and immediately precedes *caki*: 80%
 \Rightarrow 100%⁶
- d. In (1b) *Bob* (non-subject) commands but does not immediately precede
caki: 80-20X, where X is the number of clauses from *caki*.
- e. In (1c), the principles given in (2a-d) are not workable. Instead,
 Subject Priority Condition (term created: IHL): 'when there are both
 subject and non-subject anaphors in a sentence, *caki* chooses a subject over
 a non-subject that may be in a position for a better linkage (1975
 :71).' Thus, in (1c), *Ellen-caki* pair is 0%, while *Mary-caki* pair is
 90%⁷.

As will be discussed shortly, the principle given in (2e) is also assumed by C. Lee (1973), D.-W. Yang (1975), and H.-B. Lee (1976), in a similar name, i.e., subject-antecedent condition. Let me explicate their strong claim with the sentences in (3).

- (3) a. John ka Tom lul *caki* cip eyse mannassta.
 SP OP self house at met
 'John met Tom at self's house.'
- b. [_{s1} John ka Tom lul [_{s2} *caki* ka Chicago ey oassul ttay] mannassta.]
 SP OP self SP to came when met
 'John met Tom when self came to Chicago.'

Examples (3a,b) are cited from H.-B. Lee (1976:255). With these examples, H.-B. Lee agrees with C. Lee (1973:68) and with Yang (1975:32-33) that *caki* can only be coreferential with the subject of the sentence. W.-C. Kim's algorithms would give a similar conclusion. That is, according to Kim's algorithms, in (3a) *Tom-caki* pair would be assigned 0%, while *John-caki* would be 100%. In (3b) the same prediction comes out. In other words, only the subject is related to *caki*. Many people I have consulted, however, seem to get an ambiguity in both sentences.

To see the possibility that grammatical categories other than subject can be anaphorically related to *caki*, which is changed to *casin* (v. fn. 8), let us examine the sentences in (4)⁸.

⁶ This means the following: After assigning 80% initially, and after the calculation of other linkages on the basis of this linkage, 80% will be raised to 100% (cf. Kim, 1976:26).

⁷ Here, one more principle is at work, namely, the left-right principle. According to this principle (Kim, 1976:22), if the subject (left of *caki*)-*caki* is assigned 100%, then *caki*-subject (right of *caki*) will be: 100-10=90(%).

⁸ In the example given in (4), I use *casin*, instead of *caki*, since, as will be discussed in sec. 2.2. below, I believe *casin* to be the reflexive particle. As for the status of *caki* in my analysis, cf. sec. 2.1.

C. Lee (personal communication: Dec., 1977) notes that many of the examples with *casin*, instead of *caki*, sound unnatural. The reason why I changed *caki* in most of the previous works to *casin*, here, is discussed in detail in section 2.1. C. Lee seems to regard sentences (4c, d, and g) to be ungrammatical. I would not take issue with the grammaticality judgements (cf. fn. 9 below). Rather,

- (4) a. John ka swulchwihan Tom lul *casin* uy cip ey taylyeta cwuessta.
 SP drunk OP self 's house to bring give-favor
 'John brought Tom, who is drunk, to self's house.'
- b. [_{S1} John ka Tom lul [_{S2} *casin* uy il ina cal hala ko] chwungkohayssta.]
 SP OP self 's job well do COMP advised
 'John advised Tom to do self's business well.'
- c. [_{S1} John ka Tom eykey [_{S1} *casin* ka cikcep Chicago ey olako] myenglyengha-
 SP DA self SP in person to come ordered
 yssta.]
 'John ordered Tom that self in person come to Chicago.'
- d. John ka Tom lul *casin* uy cip eyse chacanayssta.
 SP OP self 's house at found-out
 'John found out Tom at/in self's house.'
- e. John ka Mary uy cinachin *cakicasin* haktay lul cohcianhkey sayngkakhan-
 SP 's too-much self ill-treat OP not good think
 ta.
 'John thinks not good of Mary's self ill-treatment.'
- f. John eykeylo *casin* uy chinkwutul ka oassta.
 to self 's friend PL SP came
 'To John self's friends came.'
- g. apeci eykey *casin* uy cha ka paycengtoyessta.
 father to self 's car SP was-assigned
 'To father self's car was assigned.'

According to my intuition,⁹ in (4a, b), *casin* is anaphorically related to Object, *Tom*, but not to Subject. In (4c) *casin* is anaphorically related to Dative, *Tom*, not to Subject. Thus, in (4a-c) the Subject-antecedent condition is violated. Sentences (4d, e) are ambiguous. Thus, the Subject-antecedent condition does not strictly work. In (4f, g: due to Y.-H. Han) there is no subject that *casin* can refer back to (cf. fn. 19). According to Kim's algorithms, in sentences (4a-e), the *casin*-subject pair would be assigned 100%. In (4a, b, and c) this prediction is totally contrary to the native speakers' intuition.

the point to take issue with seems to be that there can be a sort of perceptual difference between *caki* and *casin* as observed to me by S. C. Song (personal communication: Nov., 1977). Song essentially agrees with me deriving *caki* and *casin* from *cakicasin* by deletion. Song, however, observes that there seems to be a difference of 'naturalness' or 'appropriateness' between *caki* and *casin* in sentences such as those given in below.

- (i) a. { *caki*
 b. { *casin* uy } manwula hanthey chaywessta.
- (ii) a. { *caki*
 b. { *casin* uy } ttal sicip mitchen lul swul masie nalie pelitani!

At the present time, I do not have an appropriate explanation about Song's observation.

⁹ I consulted many Korean linguists who attended 1977 LSA Summer Institute (University of Hawaii), and found that they agree with my intuition about the sentences given in (4). Examples (4f, g) are from Young-Hee Han.

Again, according to Kim's algorithms, in (4a-e), the relation between nonsubject (i.e., Object in a, b, and d, Dative in c, and Genitive in e) and *caki* would automatically be assigned 0% by the Subject Priority Condition (cf. 2e above). This prediction is totally against the native speakers' intuition. To sentences (4f, g) the subject priority condition is irrelevant. Instead, Kim's (1976, 92: 111) Thematic Hierarchy¹⁰ seems to work here. Anyway, sentences (4a-e) show that the Subject Priority Condition is not well motivated. The situation seems to show that Kim's approach has some problems.

1.1.2. As mentioned above, one of Kim's mistakes seems to be that she assumes *ku* to be a third person pronoun comparable to the English pronoun *he*, and *kunye* to *she*.¹¹ Many (if not all) of the alleged ungrammatical sentences in Chapter 2 of her dissertation seem to be ungrammatical not because they violate the constraints she postulates, but because they violate a more basic and general constraint, namely, deletion. Let me make this point clear with sentences given in (5).

- (5) a. **John* ka [_S*ku* ka pwuca la ko] malhayssta.
 SP SP rich man COMP said
 'John said that he is a rich man.
 b. * [_S*Ku* ka pwuca lako] *John* ka malhayssta.
 SP rich man COMP SP said
 c. * [_S*John* ka pwuca lako] *ku* ka malhayssta.
 SP rich man COMP SP said
 d. **Ku* ka [_S*John* ka pwuca lako] malhayssta.
 SP SP rich man COMP said

According to Kim's (1976:125f.) explanation, the sentences in (5) are ungrammatical because they violate her *ku*-non subject condition, which says that 'if NP_a is subject of a complement and NP_b is the subject of an assertive predicate, NP_a and NP_b are not coreferential if either is *ku*.'¹² These sentences, however, seem to be ungrammatical not

¹⁰ Kim's (1976, 92: 111) Thematic Hierarchy: Topic>Subject>D Obj.>ID Obj.>lopwuthe NP>eytayhayse NP>Gen. NP.

Accompanying Principle: *caki* or *ku* cannot be higher in the hierarchy than its anaphoric full NP.

¹¹ As to the status of *ku*, Wha-Chun Kim (personal communication: Sept., 1977) observed that, if *ku* is not a nonreflexive pronoun in Korean, how I would account for the numerous cases in which *ku* refers back to a full NP. She gives the following expression:

(i) *Chelswu* nun aphuta. *Ku* nun ipwenhayssta.
 TP be sick TP be hospitalized

I cannot imagine a situation in which (i) is acceptable. Instead, a natural expression would be the one in (ii).

(ii) *Chelswu* nun aphase, ϕ ipwen hayssta.

For further discussions on the status of *ku* and its possible source, cf. fns. 15, 22, 34, and 35, below.

¹² Actually, she revises this constraint, but the basic point of my counter-argument is equally applicable to her revised constraints, too: namely, Disjoint Rule I, Disjoint Rule II, etc.

because of her *ku* non-subject condition, but because of the misuse of *ku* itself. If *ku* is deleted or replaced by *caki*, *casin*, or *cakicasin*, then all of them become perfect. Even if one of the NP's is non-subject, a sentence with *ku* still sounds awkward to me, as shown in (6).

- (6) **John* ka [_s*Bill* ka *ku* eykey ton lul cwuessta ko] malhayssta.
 SP SP to money OP gave COMP said
 ‘*John* said that *Bill* gave money to *him*.’

Again, if *ku* is deleted or replaced by reflexive form, then sentence (6) becomes grammatical. Thus, *ku* in Chapter 2 of Kim's dissertation actually seems to be reflexive or ϕ pro-form, at least to me.

1.1.3. Even if we accept Kim's data with *ku*, some of her constraints seem to contradict each other, and some of her own data do not seem to be reasonably accounted for by the principles she develops.

To prove her (1976:92, 111, and see fn. 10 above) Thematic Hierarchy and the Principle, Kim gives sentences such as (7)-(8).

- (7) ?**Nay* ka *Peter* eytayhayse *ku* eykey yaykihayssta.
 I SP about to talked
 ‘I talked to *Peter* about *him*.’
 (8) ?**John* ka *Peter* eytayhayse *ku* lopwuthe tulessta.
 SP about from heard
 ‘*John* heard about *Peter* from *him*.’

These are ungrammatical, Kim says, because they violate the thematic hierarchy and the principle (see fn. 10). Thus, her thematic hierarchy and the principle works fine in accounting for sentences (7) and (8). Kim's final version of the disjoint rule, namely Disjoint Rule II¹³ (Kim, 1976:128, henceforth, DR II, for convenience), however, does not have anything to do with the sentences given in (7) and (8). Thus, according to DR II, since it does not apply, sentences (7) and (8) should be predicted to be grammatical. To avoid this criticism, Kim has to provide some sort of convention which would show to what kind of sentences DR II is applied, and to what kind of sentences the thematic hierarchy and the accompanying principle are relevant. In other words, there should be a hierarchy among constraints and principles.

Furthermore, Kim's DR II, as it is given, does not seem to account for her sentences such as cited in (9) through (11) (Kim's (18) through (20), p. 117).

- (9) a. *Fred* ka [_s*ku* ka cikap lul hwumchin kes] lul hwuhoyhanta.
 SP SP purse OP stole COMP OP regret
 ‘*Fred* regrets that *he* stole a purse.’
 b. **Ku* ka [_s*Fred* ka cikap lul hwumchin kes] lul hwuhoyhanta.
 SP SP purse OP stole COMP OP regret

¹³ Kim's (1976:128) Disjoint Rule II: Mark *ku* as non-coreferential with a full NP Subject.

- (10) *Ku* lul [_s*Fred* ka aphun kes] ka koylophyessta.
 OP SP be-sick COMP SP bothered
 'That *Fred* is sick bothered *him*.'
- (11) a. *John* nun [_s*ku* ka Boston ey ol ttay] pihayngki lo onta.
 TP SP to come when plane by come
 'When he comes to Boston, John comes by plane.'
- b. **Ku* nun [_sJohn ka Boston ey ol ttay] pihayngki lo onta.
 TP SP to come when plane by come

The point here is that DR II (cf. fn. 13) must be blocked in (9a) but in (9b) DR II must apply and should show that (9b) is ungrammatical in the sense that *ku* and *Fred* are anaphorically related. This problem can be solved if the DR II is revised so as to incorporate Primacy Constraints¹⁴ in an unfavorable way such as given in (12).

- (12) DR II': Mark *ku* as non-coreferential with a full NP subject, if the Primacy Constraint is violated (Revised: IHL).

DR II' accounts for sentences (9a, b). In (9a), the Primacy Constraint is not violated, hence the disjoint rule does not apply even if (9a) satisfies the original disjoint rule, DR II (see fn. 13). DR II', however, cannot account for sentences given in (10) and (11), since Kim (1976:117) claims that only subject *ku* obeys the Primacy Constraint. The original DR II can account for sentence (11). Sentence (10) (Kim's 19b p. 117) is a serious problem. Kim gives sentence (10) to claim that non-subject *ku* does not obey the Primacy Condition. Hence sentence (10) is grammatical. Sentence (10), however, satisfies DR II (see fn. 13). Thus, DR II should predict *ku-Fred* pair to be non-anaphoric. Though in (10) the positional relation of *ku* and *Fred* violates the Primacy Condition, this condition is not effective here, since Kim (1976:117) says that only subject *ku* obeys the Primacy Condition. Therefore, there is no way to keep the disjoint rule, DR II, from applying to sentence (10). Accordingly, sentence (10) will be predicted to be ungrammatical, by the mechanisms she develops, in contrast the grammaticality judgement given in (10).

If DR II is revised in such a way as in (12), then a new problem arises, although sentences (9a, b) are explained. Specifically, let us examine the sentences in (13) (Kim's (28) and (37a), respectively).

- (13) a. *John*_j ka *Bill*_i lul piphanhayssta ko *ku* ka malhayssta.
 SP OP criticized COMP $\left. \begin{matrix} *i \\ j \end{matrix} \right\}$ SP said

¹⁴ Primacy Constraint (Kim, 1976:24, cited from Langacker (1969)): 'NP_a may be used to pronominalize NP_p unless NP_p bears all relevant primacy relations to NP_a. Any violation of a rule or constraints will result in 0% linkage.' By primacy relations, she is understood to mean the 'command and precedence relations.' Incidentally, Ho-Min Sohn (personal communication: Sept., 1977) correctly observes that Kim's sentence (10) is ungrammatical.

b. *John*_i *ka Peter*_j *eykey ku ka ikyessta ko malhayssta.*
 SP to $\left\{ \begin{matrix} *i \\ j \end{matrix} \right\}$ SP won COMP said

The relevant point here is that the disjoint rule, DR II, must apply between *John* and *ku* in both sentences (13a, b). However, the Primacy Condition is not violated. Accordingly, my revised rule (12) cannot apply. Thus, there is no way to mark the non-anaphoric relation between *John* and *ku*.

To summarize, the disjoint rule as it is given in fn. 13 is necessary to account for the sentences in (11) and (13). To account for the sentences in (9), however, the Primacy Condition should be incorporated as suggested in (12). Sentence (10) cannot be accounted for either by DR II or by DR II'. The situation seems to show that the problem cannot be solved by the rules or principles such as introduced by Kim or by the revised rule such as in (12). Basically, I interpret the situation as follows: sentences with *ku* which Kim gives as grammatical sound very awkward (if not totally ungrammatical) to me. They become perfect if *ku* is appropriately deleted. Thus, it seems that the examples considered in this sub-section should be re-represented in terms of ϕ Pro-form.¹⁵ This observation, if reasonable, seems to suggest that Kim's analyses of *ku* and ϕ Pro-form be treated in one token, namely, ϕ Pro-form, not as two separate phenomena.

1.1.4. In this sub-section, I would like to note a problem with Kim's analysis of ϕ Pro-form. I agree¹⁶ with her generalization that ϕ in a complement can have an anaphoric relation with an NP of any grammatical relations in the matrix clause, if the Primacy Condition (see fn. 14) is satisfied (Kim, 1976:144), but that no matrix ϕ can have a complement antecedent (Kim, 1976: 149). In developing principles or rules to account for this phenomenon, Kim makes use of an A-Over-A Principle and an Hierarchical Closeness Principle¹⁷, among others. I would like to discuss an interaction of these two

Let us examine one of her examples such as the one reproduced here in (14) (Kim's (62), p. 172: Irrelevant points are ignored).

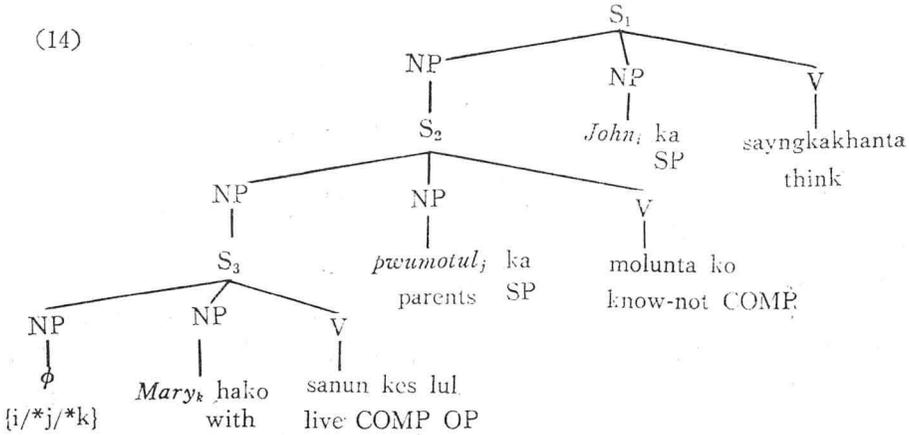
According to the A-Over-A Principle, Kim's interpretive rule can only apply between ϕ and *Joe*, but never between ϕ and *Peter*. The Hierarchical Closeness principle, however, can relate ϕ and *Peter*. Thus, the latter principle correctly accounts for the intuition presented in (14). With this explanation, however, my question is: Given the A-Over-A Principle and the Hierarchical Closeness Principle, which one supercedes the

¹⁵ One may raise an objection to my generalization, noting sentences (10) and (13), but it seems that in the non-interpretive approach, in which pro-forms such as *ku* is not introduced in the base, sentences (10) and (13a) cannot be derived, because transformations can be properly formulated (cf. sec. 2.3. below. Also cf. fns. 22, 34, and 35).

¹⁶ By this I mean that W.-C. Kim correctly observes the phenomenon, but I do not necessarily mean that I agree with her theoretical approach.

¹⁷ Hierarchical Closeness Condition: ϕ can only refer to the hierarchically closest anaphor (Kim, 1976:172). As for the A-Over-A Principle, I am talking about the one Kim assumes and used in sec. 3.3 of her dissertation in accounting for her examples.

(14)



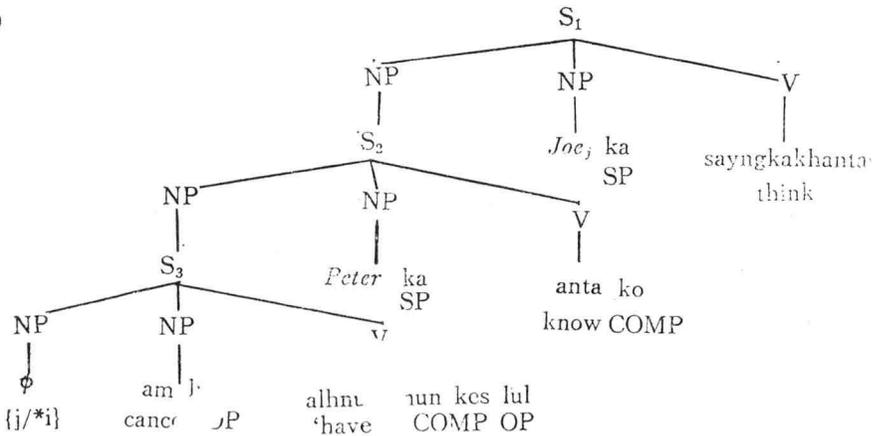
‘Joe thinks that *Peter* knows that *he* has a cancer.’

principles.

other? In (14), if we follow the A-Over-A Principle, φ and *Peter* cannot be related. On the other hand, if we apply the Hierarchical Closeness principle, φ and *Joe* are not related. Again, as I noted in sec. 1.1.3 above, Kim needs a hierarchy among principles. Incidentally, according to my intuition, both readings seem to be perfect. If such is the case, then sentence (14) constitutes a serious counter-example not only against the A-Over-A Principle, but also the Hierarchical Closeness Principle.

Let us examine one more sentence (Kim’s (68), p. 179):

(15)



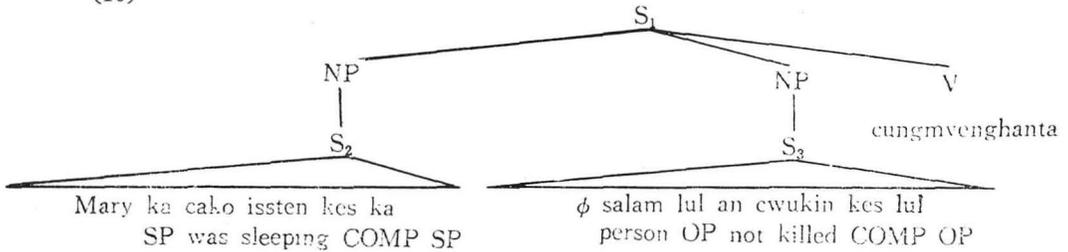
‘John thinks that parents do not know that he lives with Mary.’

In accounting for this sentence, Kim brings in a sort of semantic condition. She correctly observes that the Hierarchical Closeness Principle does not hold here. She attempts to explain the situation in terms of the characteristics of the verb, *molunta* ‘know-not’. But, it seems to me that sentence (15) can be accounted for, if we apply the

A-Over-A Principle.¹⁸ Thus, in (15), to account for the given intuition, the A-Over-A Principle must supercede the Hierarchical Closeness Principle. On the other hand, as shown above in (14), to account for the given intuition, the Hierarchical Closeness Principle had to supercede the A-Over-A Principle. Therefore, here we see a clear case of theoretical contradiction. Again, the situation suggests that there should be some sort of hierarchy among principles, if the principles are well motivated.

Actually, Kim herself notes a counter-example against the A-Over-A Principle, as shown in (16) (Kim's (69), p. 180).

(16)



‘That *Mary* was sleeping proves that *she* did not kill a person.’

As in her vague explanation of sentence (15), Kim seems to recognize the necessity of a pragmatic or semantic consideration. She uses the term ‘assumptions about the world,’ but she does not make it clear what she means by this. In discussing C. Lee’s (1973) analysis, I will return to a similar matter, in sec. 1.2.1.

1.2. In this sub-section, I will examine several works done under the transformational approach. They are C. Lee (1973), D.-W. Yang (1975), and H.-B. Lee (1976), among others. I will discuss them in this order. As in the previous sub-section (sec. 1.1), that I point out some difficulties or problems with a certain analysis does not necessarily mean that that specific analysis is totally incorrect.

1.2.1. As I have already mentioned (see sec. 1.1.1), in all of the three works the subject-antecedent condition is assumed. I agree there are many instances where this condition seems to be effective. The reason many want to stick to this condition is probably due to an incorrect impression that one may receive from the significant typological feature: i.e., in languages such as Korean and Japanese in most (except personification in written form) of the transitive constructions the subject is [+Animate]. In Korean the reflexive pronoun, *casin*, usually refers back to a [+Animate] antecedent, The validity of this observation is not directly relevant to the following discussion.

In addition to the notion of subject, C. Lee (1973) includes the category of Topic as

¹⁸ This syntactic explication should be preferred to any semantic account by Kim, who assumes an autonomous syntactic interpretive approach.

a grammatical function which is directly relevant to reflexivization. He postulates a transformational rule of reflexivization as reproduced in (17).

- (17) a. When the Subject or Topic NP [+Hum, +III] of a sentence is in command with an instance of a following coreferential NP [+Hum, +III], the former reflexivizes the latter.
 b. If the Topic is not coreferential with its immediately following subject, only that Subject (not the Topic) can reflexivize a following coreferential NP with which the Subject is in command. (C. Lee 1973: 118-119, numbering (a, b) added: IHL)

As a possible counter-example against the above reflexive rule (esp., 17a), C. Lee cites sentences such as given in (18: Lee's 79a, p. 102).

- (18) [_S Sue ka *casin*_i lul palaponun kes] ka *Joe*_i eykey culkewessta.
 _S SP self OP look-at COMP SP DA pleasant
 'Sue's looking at *self* was pleasing to *Joe*.'

According to C. Lee's explanation, his reflexive rule cannot anaphorically relate *casin* and *Joe*, since the possible antecedent *Joe* is neither a subject nor a topic. To account for this phenomenon, he assumes the 'Experiencer' *Joe eykey*, to be derived from Topic, *Joe nun*, by a transformational rule of Flip. Lee's (p. 100, 104) topicalization process can roughly be summarized as in (19).

- (19) a. Lee's S expanding base rule (p. 68) optionally introduces a category Top.
 b. The speaker decides which NP would be topicalized, and assigns [+Top] feature to the chosen NP.
 c. The [+Top] feature assigned NP is Chomsky-adjoined to its immediately dominating S.

This topicalization produces a sentence such as in (20).

- (20) Joe nun [_S Sue ka Joe lul palaponun kes] ka culkewessta.
 TP _S SP OP look at COMP SP pleasant

The transformational rule of reflexivization (17) applies to (20) and converts *Joe* in complement into *casin*, and the resultant sentence undergoes the rule of Flip to result in sentence (18). Thus, a tentative counter-example (18) is accounted for.

Now, let us examine some of the sentences given in (4) above. By making use of the notion of the underlying complement subject and a syntactic rule of Raising, some of the sentences may be accounted for. Most of the sentences, however, cannot be accounted for. Topicalization and the rule of Flip are not effective here. C. Lee (personal discussion in Honolulu) suggested that cases where the reflexive pronoun is anaphorically related to a surface non-subject be accounted for in terms of the notion of abstract

presuppositional deep structure, in a manner similar to Kiparsky & Kiparsky's (1971) analysis. In other words, C. Lee's suggestion seems to mean that the Korean reflexive pronoun can ultimately be anaphorically related to the notion of subject in a very remote abstract or presuppositional deep representation. This does not seem to be unreasonable. Sentences (4c, e) may be accounted for by this assumption. In sentences (4f, g; due to Young-Hee Han) I find some serious difficulties with above approach. In both (4 f) and (4g), the verbs are not psychological ones. Thus, the 'Experiencer' and Flip approach would not be effective. Furthermore, considering the characteristics of the involved verbs, I see difficulties in figuring out what sort of presuppositional deep representation can be postulated. Basically, as far as I know, there are no effective mechanisms developed to relate a presuppositional deep representation and its corresponding surface syntactic form.

Second, there seems to be a technical problem with the movement rule of topicalization as formulated by C. Lee (1973:100, 104). Let us consider sentences such as given in (21).

- (21) a. *Bill* nun *casin* ka kassta.
 TP self SP.went
 'As for *Bill*, *himself* went.'
- b. *Bill* nun *casin* ka swukcey lul hayssta.
 TP self SP homework OP did
 'As for *Bill*, *himself* did the homework.'

The point here is that unless Lee's movement rule of Topicalization leaves some sort of pronominal copy (or a trace (Chomsky 1976, Jackendoff 1976, and Lightfoot 1976), if you like it), the reflexive forms in (21a, b) cannot be accounted for, since there can be only one NP in the base of sentences (21a, b).¹⁹

Third, in formulating Equi-NP Deletion, C. Lee (1973:75-78) observes that when the matrix verb is Verbs of Saying the antecedent of the deleted subject depends upon the semantic characteristics of the complement verb. For instance, if the complement verb represents Action done under speaker's consciousness (i.e., the subject of the verb of saying), then the deleted complement subject has the matrix subject as its antecedent, as shown in (22).

¹⁹ As for the rule of Topicalization, C. Lee (personal communication: Dec., 1977) clarifies his position by saying that Topicalization leaves a ϕ pro-form and that in certain cases the ϕ pro-form is replaced by *caki* for the contrastive emphasis. He further suggests that if Topicalization is regarded as a sort of 'Copying+Deletion' process, then the observed problem can be solved by assuming a replacement of *caki*. That is, the deletion process does not apply and *caki* replaces the original NP. I think that his suggestion does not contradict the position I hinted in the text. Putting the matter of *caki* vs. *casin* aside (cf. sec. 2.1), I think his suggestion could not be very different from the mechanisms I formulated in section 2. A possible difference would be the order of procedures themselves.

- (22) *John*_i ka Bill eykey [_s ϕ _i pap lul mekessta ko] soliclessta.
 SP to rice OP ate COMP shouted
 ‘*John* shouted to Bill that ϕ (he) had eaten rice.’

On the other hand, if the complement verb represents Action ‘which is normally unconsciously done by the agent (and the subject of the matrix assumes or pretends to assume that his hearer (agent) is unconscious of the action, or he wants to bring his hearer’s attention to the matter, or possibly he just wants to make a comment), the deleted subject refers to the hearer which is the higher oblique object (C. Lee 1973:78)’, as shown in (23–24: Lee’s 19–20, respectively, p. 78).²⁰

- (23) Sue ka *Joe* eykey [_s ϕ colko issta ko] malhayssta.
 SP to be-drowsing COMP said
 ‘Sue told *Joe* that he is drowsing.’
- (24) Joe ka Sue eykey [_s ϕ pal lul *palpko* issta ko] malhayssta.
 SP to foot OP be-stepping-on COMP said
 ‘Joe told *Sue* that she is stepping on (his) foot.’

It is true that C. Lee makes some good points with the notion of consciousness/unconsciousness. However, the following weakness can be observed in his analysis. Let us examine sentences given in (25).

- (25) a. Sue ka Joe eykey [_s ϕ colko *issessta* ko] malhayssta.
 SP to have-been-drowsing said
 ‘Sue told Joe that ϕ had been drowsing.’
- b. Sue ka Joe eykey [_s ϕ colci anassta ko] malhayssta.
 SP to not drowse COMP said
 ‘Sue told Joe that ϕ did not drowse (or had not been drowsing).’

In (25a) the complement tense is changed, and in (25b) the complement is negated. We can easily figure out that the action of drowsing had normally been done unconsciously by the agent, and that the agent later knew that he/she was drowsing. However, the complement agent in both (25a, b) can equally be interpreted either as *Sue* or as *Joe*. If the complement tense is changed into Past in (24), the same argument can hold there, too. Thus, it does not seem to be the case that the complement verb itself is responsible for the decision of the possible antecedent of the deleted complement subject.

Furthermore, C. Lee (1973:79) observes that verbs that take the [+Hum] object such as *salangha* ‘to love’, *conkyengha* ‘to respect’, *samoha* ‘(highly) admire’ may have their object deleted in the same construction when it is coreferential with *eykey* NP in the main clause, as shown in (26:Lee’s 22).

²⁰ On the basis of these and similar observations, C. Lee (1973:79) postulates deletion rules. I do not think we need two deletion rules. If we assume the interpretive approach and if C. Lee’s observation is correct, then there should be two interpretive rules.

- (26) *Joe*_i *ka* *Sue*_i *eykey* [_S ϕ_i ϕ_i *samohanta* *ko*] *malhayssta*.
 SP to admire COMP said
 'Joe told Sue that he admires her.'

The deletion represented by ϕ_i is done by the speaker's (Joe's) Consciousness Principle as discussed above with sentence (22). The deletion represented by ϕ_j is done by the [+Hum] object principle. Now, let me return to sentence (24), which seems to be misrepresented. There should be two ϕ 's in (24), as given in (27:Also note tense change).

- (27) *Joe* *ka* *Sue* *eykey* [_S ϕ_1 ϕ_2 *pal* *lul* *palpko* *issessta* *ko*] *malhayssta*.
 SP to foot OP be-stepping-on COMP said

According to Lee's consciousness/unconsciousness principle, the complement subject (ϕ_1) in (27) is *Sue*. But, according to his [+Hum] object principle the complement object (ϕ_2) must also refer back to *Sue*. This means that Lee's two principles, i.e. consciousness/unconsciousness and [+Hum] object principles, cannot work together. Sentence (27), however, satisfies both of the two principles. Actually, both predictions seem to be correct. In other words, sentence (27) is ambiguous at least as shown in (28).

- (28) a. 1st reading: *Joe*- ϕ_1 & *Sue*- ϕ_2 (by [+Hum] Object Principle)
 b. 2nd reading: *Joe*- ϕ_2 & *Sue*- ϕ_1 (by Unconsciousness Principle)

This situation seems to suggest that Lee should provide some sort of convention so that both of the above principles may equally be applied to sentence (27). If we assume that the two readings are underlyingly differentiated, there would be no complicated problems such as observed here.

Finally, C. Lee gives an interesting observation which I quote in (29).

- (29) It is an interesting fact that the Korean *caki* assumes the role of reflexivization and part of the role of pronominalization of the English counterparts. This suggests that pronominalization and reflexivization are closely related and basically similar processes (C. Lee, 1973:106).

However, Lee has not attempted to characterize the interrelationship between these two apparently related phenomena. This will be the main topic of sec. 2 below.

1.2.2. D.-W. Yang's (1975) assumptions on Korean pronominal anaphora can roughly be summarized as in (30).

- (30) a. As in English, Reflexivization and Pronominalization must be in Complementary Distribution with respect to their domains of application in Korean (p. 67). Therefore, Reflexivization and Pronominalization are two different rules.
 b. The antecedent of a reflexive pronoun must be the subject of the sentence ...The antecedent has only to command its coreferential reflexive pronoun (pp. 32-33).

- c. As in English, Pronominalization in Korean applies forwards freely, but applies backwards only into a subordinate clause (p. 72).
- d. Any process of NP-Deletion under coreference is in fact a conjunction of the two processes, Pro-formation and Pro-deletion, i.e., only pronominal NP's (reflexive or pronoun) can be deleted under coreference (p. 45). Thus, Equi-NP Deletion is not motivated in Korean grammar (p. 55f).

I agree with D.-W. Yang's principle (30d), but not with (30a). His principle (30a) that the reflexive and the pronoun are in complementary distribution simply does not seem to be true, as already noted by H.-B. Lee (1976).²¹ Let us examine H.-B. Lee's examples, as given in (31)²²

- (31) a. *John*_i ka *Tom*_j lul *ku* uy cip eyse mannassta.
 SP OP {i/j} 's house at met
 'John met Tom at his(=John's or Tom,s) house.'
- b. *John*_i ka *Tom*_j lul *ku* ka Chicago ey wassul ttay mannassta.
 SP OP {i/j} SP to came when met
 'John met Tom when he(=John or Tom) came to Chicago.'

What H.-B. Lee (1976:255) observes is that Yang (1975:32-33) is mistaken in thinking that in (31a-b) the antecedent of the pronoun *ku* can only be the object of the sentence. According to H.-B. Lee's interpretation, sentences in (31) are both ambiguous, in that *ku* may equally refer to either subject *John* or object *Tom*. If H.-B. Lee's observation is correct, then we can note two points. First, as Lee concludes, Yang's assumption that the reflexive and the pronoun are in complementary distribution is not correct. Second, the subject-antecedent condition, which is assumed in all the above-mentioned works, is indirectly proved to be false, that is, given a sentence in which the matrix subject is coreferential to an NP in complement, e.g. (31b), reflexivization and pronominalization should equally be able to apply. In other words, even if the subject condition is satisfied, it is not necessarily the case that only reflexivization must apply. This seems to be a serious counter-point against Yang's complementary distribution assumption. This fact also weakens Yang's assumption that reflexivization is cyclic and pronominalization is post-cyclic. Furthermore, Yang's assumption that reflexivization and pronominalization are two distinct processes is also weakened. Nonetheless, Yang's principle (30d) can be understood to be an important attempt to relate reflexives and

²¹ Even in English, there are counter-examples to this generalization (cf. Jackendoff 1972, Wasow 1974, and I.-H. Lee 1977a).

²² To me, the sentences with *ku* in (31) are unacceptable. If ϕ pro-form replaces *ku* in both sentences, then they become perfect. Thus, I do not regard *ku* as a Korean pronoun comparable to English *he*. As for the status of *ku*, cf. the last part of sec. 2.1. below and fns. 11, 34 and 35. To those who regard the *ku* sentences as acceptable, I can suggest something like the following: their grammar includes one more deletion rule (cf. sec. 2) which derives *ku* from full NP anaphora (cf. sec. 2.1, and fns. 15, 34, and 35).

pronouns in terms of Pro-form Deletion.

1.2.3. In the previous sub-section, I noted that H.-B. Lee (1976) makes a good point on D.-W. Yang's analysis of pronominal anaphora in Korean. In spite of this comment, I still do not agree with H.-B. Lee's subject-antecedent condition on Reflexivization. For counter-examples, see (4), in sec. 1.1.1. above, one of which is repeated here in (32b: a is H.-B. Lee's 6b).

- (32) a. John ka Tom lul *caki* uy cip eyse mannassta.
 SP OP self 's house at met
 'John met Tom at self's house.'
- b. John ka Tom lul *caki* uy cip eyse chacanayssta.
 SP OP self 's house in found out
 'John found out Tom in self's house.'

It seems to me that *caki* in (32a) can perfectly well be related either to *John* or to *Tom*.²³ Similarly, in (32b) *caki* can equally be related either to *John* or to *Tom*. This fact seems to show that H.-B. Lee's subject-antecedent assumption on reflexives is not efficient.

As to the relationship between reflexives and pronouns, H.-B. Lee (1976:256-261) provides an interesting generalization such as cited in (33).

- (33) a. The pronoun *ku* can always substitute the reflexive *caki*, without destroying the original meaning of the sentence, but not the other way round (p. 256).
- b. Reflexivization is a special type of Pronominalization: That is, an NP first becomes *ku* by pronominalization, and then this *ku* is transformed into *caki* under certain syntactic environment (p. 257). That is, Reflexivization is a sub-system of Pronominalization in Korean (p. 261).²⁴
- c. Reflexivization is an optional rule, but may become an obligatory rule under a certain circumstance, e.g., when applied to a simple sentence (p. 261).

First of all, it may be true that reflexives constitute a sub-set of pro-forms (see 53c, 59e below), but it does not seem to be the case that *caki*'s belong to a subset of *ku*'s (33a), since *ku* cannot be regarded as a pronoun in Korean. His sub-system

²³ Actually, when this sentence was discussed in a Korean syntax course (1977 LSA Summer Institute, University of Hawaii: Instructor, Ho-Min Sohn), I noticed that most of the people there also had two perfect readings.

²⁴ H.-B. Lee (1976:254) derives sentences in (i) as diagramed in (ii).

i) John ka Bill lul { a. *ku*
 b. *kucasin*
 c. *casin*
 d. *cakicasin*
 e. *caki* } ka puwsan ey issul ttay mannassta.
 SP Pusan in was when met

hypothesis is motivated on the basis of sentences such as in (34-35: Lee's 10-11, respectively).

- (34) *Sensayngnim* nun haksayng tul eykey [_S { *ku* / *caki* } ka kakeyssta ko] malhays-
 teacher TP student PL to SP will-go COMP said

sta.

'Teacher told students that { *he* / *self* } will go.'

- (35) a. John ka Tom eykey [_S { *ku* / **caki* } ka calmos ila ko] malhayssta.
 SP to SP wrong be COMP said

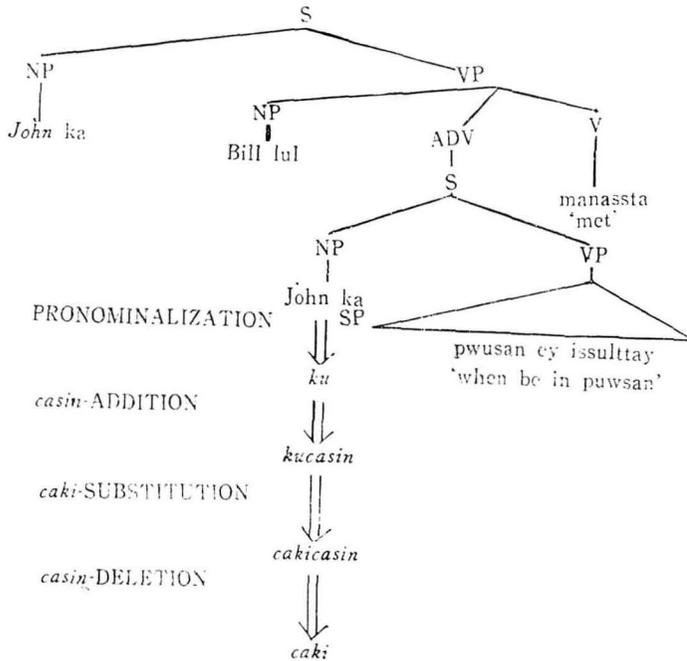
'John told Tom that he is wrong.'

- b. John ka Tom eykey [_S { *ku* / **caki* } ka kukes lul hal kes] lul myenglyengha-
 SP to SP it OP do COMP OP ordered.

yssta.

'John ordered Tom that he does it.'

ii)



However, I do not see any reasonable motivations for the rules of ADDITION and SUBSTITUTION.

a minor role in the grammar of Korean anaphora.

So far, I have examined four of previous works on the pronominal anaphora in Korean. In the following section, I will motivate an alternative analysis.

2.0. In this section, I will do three things. First, in sec. 2.1. I will investigate the distributional characteristics of anaphoric proforms in Korean. Second, in sec. 2.2. I will discuss a significant syntactic phenomenon in Korean grammar, namely deletion phenomenon. Third, in sec. 2.3. I will suggest an alternative analysis of a anaphoric pro-forms in Korean, on the observations and discussions in secs. 2.1. and 2.2. Supporting arguments are given in secs. 2.4-2.6 and remaining problems will be noted in sec. 2.8.

2.1. The word *caki* is usually regarded as the reflexive pronoun in Korean (cf. D.-W. Yang, 1975 and W.-C. Kim, 1976, among others).²⁷ They do not seem to be interested in the reflexive forms of the first and second person pronouns. Kim (1976:10), regarding *caki* as the reflexive pronoun, observes that the first and the second person pronouns cannot antecede *caki*. She makes her point clear with examples such as given in (38).

- (38) a. Na nun na(casin) lul ihayhanta.
 I TP I OP understand
 'I understand myself.'
- b. Ne nun ne lul ihayhanta.
 you TP you OP understand
 'You understand yourself.'

Kim (p. 105, fn. 4) says that *casin* is optional here, and that *casin* is used like the English intensive. Thus, Kim's claim can be interpreted as saying that the first and the second person pronoun subjects can have the identical first and second person pronouns as their clause-mate objects, respectively. The presence of *casin* can be ignored under Kim's analysis, except the intensive uses.

As to the status of the word *casin*, however, C. Lee (1973:70) seems to have a slightly different view. His examples are cited in (39).

- (39) a. Na ka $\left. \begin{array}{l} \text{na} \\ \text{nacasin} \\ \text{casin} \end{array} \right\}$ lul kkocipessta.
 I SP $\left. \begin{array}{l} \\ \\ \end{array} \right\}$ pinched
 'I pinched myself.'

²⁷ For instance, let us examine the following sentence (W.-C. Kim 1975:75).

i) [_s[_s[_s*Caki* ka ikin kes ka]_s Bill lul nollakehayssta ko]_s *etten salam* ka malhayssta.]_s
 self SP won COMP SP OP surprises COMP some people SP said

'Some people said that that *self* won made Bill surprised.'

W.-C. Kim assigns 0% on *caki*-*Bill* pair. I do not see how the definiteness assumption can account for this ungrammaticality. Rather, the question of definiteness/indefiniteness seems to be related to the matter of bound/unbound variables, as noted and discussed by several scholars (cf. Bonney 1976, Cooper 1976, Karttunen 1969, Kroch 1976, and Wasow 1975, among others).

- b. Ne ka $\left\{ \begin{array}{l} \text{ne} \\ \text{necasin} \\ \text{casin} \end{array} \right\}$ lul kkocipessta.
 you SP $\left\{ \begin{array}{l} \text{OP} \\ \text{pinched} \end{array} \right\}$
 'You pinched yourself.'

C. Lee (1973:70) calls *casin* a 'Reflexive Particle,' which is optionally attached to the first and the second person pronouns. Further, he notes that *casin* can stand alone to be coreferential with the subject. The reflexive *caki*, according to C. Lee, is limited to the third person human noun. Thus, C. Lee seems to recognize two reflexive forms in Korean, which can be summarized as in (40).

- (40) a. *caki*: third person reflexive pronoun
 b. *casin*: first and second person reflexive particle

As mentioned above, Kim (1976:105) regards *casin* as a sort of reflexive form (for 1st and 2nd person) in terms of 'intensive reflexive.' Similarly, Yang (1945:53) analyzes *casin* to be an 'emphatic reflexive pronoun.'²⁸ Accordingly, it follows that under both Kim's and Yang's analysis the emphatic (or intensive) reflexive differs in form from the regular reflexive pronoun in Korean. In C. Lee's (1973) analysis, on the other hand, the first and second person reflexive particle is different from the third person reflexive pronoun.

In contrast to the above-mentioned scholars, Martin (forthcoming: 142) gives *caki*, *ce*, *casin*, *cachey* as reflexive forms. This list seems to indicate that *caki* and *casin*, among others, can be regarded to have one and the same status as the Korean reflexive form: hence *caki* may be treated as a variant of *casin*, or the other way around.

Here, I am particularly concerned with *caki* and *casin*. Plural forms will not be considered in this paper. To give my conclusion first, I will regard *casin* as the Reflexive Particle (term is from C. Lee) for every person, which will be used in referring to an animate antecedent. On the surface, *caki* sometimes behaves as if it is a third person pronoun, which can stand alone. I would like to regard *caki* as a sort of pseudo-pronoun which behaves as a third person pronoun in forming the third person reflexive pronouns referring back to an animate antecedent. By this, however, I do not mean that *caki* assumes all the syntactic and semantic functions that the English pronouns *he* or *she* may have. What I mean is that one of *caki*'s usages on the surface is that of a third person pronoun (cf. W.-C. Kim 1975:7). My position is that though *caki* can stand alone on the surface, it is not the case that *caki* is derived by a rule of pronominalization. A process comparable to English pronominalization seems to be the deletion of reflexives in Korean. Accordingly, the fact that *caki* can occur alone on the surface will be explained in terms of an optional rule of deletion in sec. 2.3.

²⁸ D.-W. Yang (1975) does not discuss the first and second person reflexives at all. He is only concerned with the third person reflexive *caki*.

I will not assume two reflexive forms. In other words, *casin* will be assumed to be the reflexive particle in all persons (first, second, and third). I will assume one reflexive form, *casin*, to function not only as regular reflexive but also as an intensive (or emphatic) reflexive. Notice that *casin*, as an intensive reflexive particle, can also be attached to a full NP.

Now, let us examine some of the uses of *casin* and *caki*.

	A	B
(41) a.	1st person: na(uy)casin	*na(uy)caki
b.	2nd person: ne(uy)casin	*ne(uy)caki
c.	3rd person: caki(uy)casin	*caki(uy)caki

The chart (41) shows that *caki* cannot be a unified reflexive form. On the other hand, as shown in the A-column above, it will be reasonable to regard *casin* as the reflexive particle in Korean.²⁹ Sentences given in (39) above and in (42) below also support this hypothesis.

- (42) a. **Na* ka *caki* lul sokyesska.
 I SP OP deceived
- b. **Ne* ka *caki* lul sokyesta.
 you SP OP deceived
- c. *Bill* ka $\left\{ \begin{array}{l} \textit{caki} \\ \textit{cakicasin} \\ \textit{casin} \end{array} \right\}$ lul sokyesta.
 SP OP deceived
- ‘*Bill* deceived *himself*.’

One may say that sentences (42a) and (42b) are acceptable. When these are acceptable, however, the speaker puts ‘I’ or ‘You’ in the position of a third person, probably to avoid a direct mention of the speaker himself, (‘I’ or ‘You’) for some reasons I cannot characterize right now. One may also argue against my assumption that *caki* is a third person pronoun. I use the term ‘pronoun’ here simply due to lack of a better term. That is why I used the term ‘pseudo-pronoun’ above. The idea is that *caki* appears on the surface as a result of an optional rule of deletion which will be discussed in sec. 2.3. One may argue that *ku* should be recognized as the third person singular masculine pronoun. The alleged pronoun *ku*, however, deserves a close examination, since *ku* does not seem to be able to stand alone. As an anaphoric form, *ku* (cf. Joe J. Ree, 1975) must be followed by a noun. Thus, *ku* occurring with a noun counts as a demonstrative or a determiner. This point can be observed in examples given in (43).

- (43) [_S[_S *Kim kyoswu* ka Hawaii ey wassul ttay] nuw ka $\left\{ \begin{array}{l} \textit{a. } \phi \\ \textit{b. } \textit{ku pwun} \\ \textit{c. } * \textit{ku} \end{array} \right\}$ lul manna-
 prof. SP to came when who SP OP met
 ssupnikka?]

²⁹ The term ‘Reflexive Particle’ is adopted from C. Lee (1973:70). The difference, however, is that I assume *casin* to be a reflexive particle of the third person, too.

'When *Prof. Kim* came to Hawaii, who met *him*?'

To me (43c) is unacceptable.³⁰ (43b) is a good example of the full NP anaphora in Korean, since I interpret *kupuwn* as a full NP construction of demonstrative/determiner plus a full noun. (43a) exemplifies a case of deletion of a full NP anaphora. Together (43a, b, and c) show that a full NP anaphora can optionally be deleted as a whole, not partially. That is, a full NP anaphora consisting of a demonstrative/determiner plus a full noun behaves as a whole in undergoing an optional rule of deletion, which will be postulated in sec. 2.3. below. As will be discussed there, this phenomenon marks a drastic difference between a full NP anaphora and an anaphoric pronominal form. Incidentally, this situation seems to support C. Lee's (1973:74) observation that pronouns are not well developed in Korean.

Now, I would like to set up the basic structure of the Korean reflexive form as given in (44).

(44) Reflexive form = Pronoun (Genitive) + *casin*

Again, in the case of the third person, the notion of pronoun in (44) is not comparable to the English pronoun. Thus, the term 'pseudo-pronoun' is applicable here. Once this basic structure of the reflexive forms in Korean is set up, then most (if not all) of the alleged problems concerning the coreference of anaphoric relations will be narrowed down into a significant syntactic process of deletion in Korean. Together with the question of how reflexives are introduced, I will discuss the matter of rule formulation in sec. 2.3. below.

2.2. It was argued, in the previous sub-section, that *casin* should be regarded as the reflexive particle in Korean. In this sub-section, I will discuss a significant syntactic phenomenon, namely, a deletion phenomenon in Korean grammar.

2.2.1. That deletion (esp. of pro-forms) is a very common and natural process in Korean grammar can be seen in the sentences given in (45).

- (45) a. (Na ka) hakkyo ey kanta.
 I SP school to go
 '(I) go to school.'
- b. (Ne ka) kyohoy ey kani?
 you SP church to go Q
 '(Do you) go to church?'
- c. [_Sϕ Honolulu ey ol ttay] John nun pihayngki lo wassta.
 to come when TP plane by came

³⁰ S. C. Song (personal communication: Nov., 1977) observes that a sentence such as (43c) sounds OK. Considering those who regard *ku* as a pronoun corresponding to English *he*, Song notes that it may be suggested that there should be two sources of *ku*, one of which comes from a rule of *ku*+full NP ⇒ *ku*. I agree with Song's suggestion. Fn. 22 above, is actually suggesting the same thing.

'When ϕ came to Honolulu, *John* came by plane.'

= 'When *John* came to Honolulu, *he* came by plane.'

In English, the pronouns 'I' and 'You' in (45a) and (45b), respectively, are obligatorily expressed. In Korean, these can optionally be deleted depending on the context. Very frequently, the deleted versions sound more natural. In sentence (45c) a similar phenomenon can be observed. In English the third person pronoun *he* obligatorily occurs in the subordinate clause while such is not the case in Korean. A Korean counterpart of English *he* here would be either a ϕ pro-form or a reflexive.

2.2.2. As for the deletion (or abbreviation) phenomena, in his insightful works (Song 1975, 1977) S. C. Song makes some significant generalizations. According to him, in Korean, there is an optional rule of Particle Deletion³¹ which says that compound particles (esp. connectives) can optionally drop the second constituent. He illustrates this phenomenon with instances of *se*-deletion, as shown in (46, 47: Song's 4, 5 in 1977, respectively).

(46) John nun ton ka eps { a. e-se } ppang lul hwumchiessta.
 TP money SP have-no { b. e } break OP stole

'John stole the bread, since he had no money.'

(47) Mary nun kotanhay { a. e-se } naccam lul cassta.
 TP tired { b. e } nap OP sept

'Mary took a nap, since she felt tired.'

Between a, b sentences, it is assumed that there is no difference of 'propositional' content (Song, 1977:5). Thus, the rule of *se*-deletion is assumed to be optional. Accordingly, sentences (46b) and (47b) result from an application of a particle deletion rule to (46a) and (47a), respectively. A similar phenomenon can be observed in (48).

(48) Mek { a. e-la } !
 { b. e }

Eat!

(48b) is an abbreviated version of (48a).³² If we compare b-sentences in (46), (47), and (48), we see the surface identical form *e*. The *e* in (46b) comes from *e-se* by the rule of particle deletion, while *e* in (48b) comes from *e-la*, an imperative ending, by the same rule of particle deletion. Consequently, 'the surface form *e* is an

³¹ Song (1977:1) prefers the term 'Abbreviation' to 'Deletion.' It does not seem to make any difference whether we use the term 'abbreviation' or 'deletion.' I prefer to use the term 'deletion,' since it is true that Song's abbreviation is a sort of deletion.

³² In examples (48) and (51a), as observed by Ho-Min Sohn (personal communication Sept., 1977), one may note a certain meaning difference arising from the difference of the speech level. However, at least one reading seems to be shared by both the a- and b-sentences.

accidental merger) of two distinct forms through an operation of the rule of particle abbreviation' (Song, 1977:7).

This analysis of *e*'s in terms of abbreviation rule, according to Song (p. 15), can explain some seemingly unrelated phenomena. He cites an example from Chang (1973), which I give in (49).

- (49) Mary ka mini-sukhetu lul ip-ko issta.
 SP mini-skirt OP {wear/dress}

In explaining the two aspectual meanings of this sentence, Song makes use of the same abbreviation principle. Song assumes sentence (49) to have two different underlying structures as given in (50).

- (50) a. Mary ka mini-sukhetu lul ip-*ko-se* issta.
 SP mini-skirt OP
 b. Mary ka mini-sukhetu lul ip-*ko* issta.
 SP mini-skirt OP

The point here is that the alleged ambiguity of sentence (49) is no more than a mere accident resulting from an optional application of the rule particle abbreviation (Song, 1977: 15) on sentence (50a), which carries the resultative aspectual meaning.

Here, I do not intend to fully examine the validity of Song's arguments. Rather, what I want to consider important is the fact that an optional deletion rule can result in a surface ambiguity in Korean, and that the optional rule of deletion is a prevalent phenomenon in Korean grammar, as Song guesses. More examples can be given as in (51).

- (51) a. John ka hakkyo ey wass { *tun-ya* } ?
 SP school to came { *tun* }
 'Did John come to school?'
 b. Khos nolay lul puwlu { *myen-se* } John nun syawe lul hayssta.
 humming OP sing { *mye* } TP shower OP did
 'While humming, John did shower.'

Examples can be indefinitely augmented, for example, optional plural markers in Korean (Song, 1975), and optional case marker deletion (I.-S. Yang, 1972, 1974; I.-H. Lee, 1977b), etc.

At the present time, I cannot characterize the exact syntactic/semantic conditions that control the above mentioned deletion phenomena in Korean (cf. I.-H. Lee in preparation a). For convenience of reference, I would like to call it 'Deletion for Simplification.' I will attribute many of the deletion phenomena which will be discussed below to this Deletion for Simplification in Korean grammar. One more example of Deletion for Simplification can be observed in the optional deletion of the Genitive marker *uy*, as shown in (52).

- (52) a. yengswu uy chayk → yengswu ϕ chayk
 Yengswu 's book
 b. hankwuk uy taythonglyeng → hankwuk ϕ taythonglyeng
 Korea 's President
 c. caki uy casin → caki ϕ casin

2.3. Before I suggest an alternative analysis of pronominal anaphora in Korean, I would like to observe some characteristic features of Korean pro-forms as given in (53), summarizing the occasionally noted facts in the previous sub-sections.

- (53) a. Deletion is a very common and natural syntactic phenomenon in Korean grammar (cf. sec. 2.2.2., above).
 b. There is no pure third person pronoun in Korean which is comparable to an English pronoun such as *he* or *she*. Specifically, *ku* and *kunye* are not pronouns. *Ku* is possible only as an anaphoric demonstrative or determiner (cf. Ree, 1975 and sec. 2.1. above): e.g., *ku salam* 'that person,' *ku chinkwu* 'that fellow,' *ku nyesek* 'that guy,' etc. These, together with other epithets, constitute the full NP anaphora in Korean.
 c. In Korean, ϕ Pro-form (and sometimes the full NP anaphora) may assume the function of English-type third person pronoun.³³
 d. Except cases of full NP anaphora, Korean Pro-forms are realized either as reflexives or as ϕ Pro-form. ϕ Proform is a result of the significant deletion phenomena in Korean grammar, as discussed in sec. 2.2.2. above. Full NP anaphora can also be deleted, but only as a whole.

To show an alternative method for analyzing Korean Pro-forms, let me illustrate with the example given in (54), which is apparently ambiguous.³⁴

- (54) (=4d) John ka Tom lul $\left. \begin{array}{l} \text{a. cakicasin} \\ \text{b. casin} \\ \text{c. caki} \\ \text{d. } \phi \end{array} \right\} \text{(uy) cip eyse chacanayssta.}$
 SP OP 's house in found-out
 'John found Tom in self's house.'

Sentence (54) is assumed to be derived from two different underlying structures, as shown in (55) and (56).

³³ Thanks to Ho-Min Sohn, I realized that S.-Y. Kuroda had a similar view about the relation between Japanese ϕ Pro-form and English pronoun (cf. Hinds 1971:147f, 1975:130f, and Hinds in press a, b). I also discussed this matter with J. Hinds at University of Hawaii (Summer, 1977).

³⁴ One may argue that sentence (54) is unambiguous, but if we examine the following sentences with full NP anaphora, then we can clearly see the ambiguity.

- i) John ka Mary lul $\left. \begin{array}{l} \text{a. ku nyesek} \\ \text{'that guy'} \\ \text{b. ku yeca} \\ \text{'that woman'} \end{array} \right\} \text{cip eyse chacanayssta.}$
 SP OP house in found out

rically related to *Joe*, but not to *Sue*. If *caki* replaces ϕ , however, C. Lee maintains, *caki* can only be anaphorically related to *Sue*, the subject. In my system, Reflexivization applies between the anaphorically related *Joe-Joe*. If the optional Complete-Deletion rule applies, then the result would be an expression in which *Sue* and ϕ are anaphorically related, but not *Joe* and ϕ . If C. Lee's observation is correct, then sentence (23) is a serious counter-example against the proposed alternative analysis. To claim that in (23) only *Joe* and ϕ are anaphorically related, C. Lee gives a situation which is semantically very complicated. I do not think it difficult to imagine a comparable situation where *casin* (or *caki*) can be anaphorically related to *Joe*. Suppose *Joe*, drowsing, says that some one other than himself is drowsing. *Sue* wants to comment on the situation. Under this circumstance, even without the consciousness/unconsciousness criterion, *Joe* and *casin* can easily be interpreted as being anaphorically related, and sentences in (63) are perfect.

(63) Sue ka *Joe*_i eykey [_s*casin*ⁱ { a. ka } colko issta ko] malthayssta.
 SP to b. to be-drowsing COMP said

Thus, it will not be unreasonable to assume that the surface sentences (23) are ambiguous, and that these are the result of a surface merger of at least two processes.

It was also observed (see sec. 1.2.1) that sentence (27), repeated here for convenience, is at least two-ways ambiguous as shown in (28).

(27) Joe ka Sue eykey [_s ϕ ϕ pal lul palp koissessta ko] malhayssta.
 SP to foot OP be stepping-on COMP said

This phenomenon can also be explained under the same principle: namely, two different underlying structures merge into an identical surface form by the significant syntactic process of deletion (here, of reflexive forms), as motivated in sec. 2.2. and the rules and principles introduced in (59), sec. 2.3.

2.6. Let us examine the sentences in (64).

(64) a. [_s*John* ka sihem ey pwuthessta nun sosik] ka { a. *casin* } lul culkep ke ha-
 SP exam. passed REL news SP b. * ϕ OP made-pleasant
 yssta.

'The news that John passed the exam made { a. self } pleasant.

b. [_s[_s*John* ka cwukessul ttay] modun salam ka sulpheha n kes] lul
 SP died when all people SP feel-sorry COMP OP
 { a. *casin* } ka al-li ka epsta.
 b. * ϕ SP know cannot be imagined.

'It cannot be imagined that { a. self } knows that all people felt sorry when *John* died.'

Notice that in (64a, b) the rule of Complete-Deletion must be blocked in some

way. Although I cannot be absolutely sure right now, this situation seems to be closely related to the Vagueness Constraints that I roughly stated in sec. 2.4. above. To accommodate this situation, condition (59d. ii), sec. 2.3. was postulated. Incidentally, this phenomenon corresponds to W.-C. Kim's ϕ interpretation condition (see sec. 1.1.4. above).

2.7. It was observed by Wha-Chun Kim (personal communication: Oct., 1977) that if ϕ is derived from a reflexive form in terms of deletion the predictions: all the occurrences of ϕ and reflexive form ('*caki*' is used to follow her argument) must coincide. Her examples are given in (65).

- (65) a. *John*_i nun *Peter*_j ka *caki* {i/j} ka aphun kes lul anta ko malhayssta.
 TP SP self SP sick COMP OP know COMP said
- b. *John*_i nun *Peter*_j; ka ϕ {*i/j} aphun kes lul anta ko malhayssta.

In (65a), Kim maintains, we get ambiguous reference of *caki*, but in (65b) there is no ambiguity. I. e., in (65b) ϕ can refer only to *Peter*.

If this observation is correct, my hypothesis is weakened. In contrast to Kim's observation, however, I have a different interpretation of the sentences in (65). Sentence (65b), re-represented in (66a), is structurally ambiguous.

- (66) a. John nun Peter ka aphun kes lul anta ko malhayssta.
- b. [_{s₁} *John*_i nun [_{s₂} *caki*_i ka [_{s₃} *Peter*_j ka aphun kes] _{s₃} lul anta] _{s₂} ko malhayssta.] _{s₁}
 TP SP sick know said
 '*John*_i said that *he*_i knew that Peter is sick.'
- c. [_{s₁} *John*_i nun [_{s₂} *Peter*_j ka [_{s₃} *caki* {i/j} ka aphun kes] lul anta] _{s₂} ko malhayssta.
 TP SP self SP sick know said
 '*John*_i said that *Peter*_j knew that *he* {i/j} is sick.'

(66c) is the underlying representation of (65a). The point is that the source of sentence (66a) which is superficially identical to (65b) can be either (66b) or (66c). The distinction between these two sources is indicated by the pause a speaker can have between *Peter ka* and *aphun kes*. If there is no pause, then the reading is the one represented by (66b). If there is a pause, then the source is (66c), and the resultant sentence apparently carries with it the ambiguity that the source sentence has. Thus, when Kim claims that sentence (65b) is not ambiguous, she is actually talking about a different source, i. e. (66b). In other words, sentence (66a) comes either from (66b) or from (66c) by the complete deletion of the reflexive pronoun. The ambiguity possibility is already determined by the respective source sentences. Therefore, Kim's sentences (65a, b) are not counterexamples to my analysis.

2.8. There are some problems remaining. First of all, it should be noted that the rules, principles and conditions which were postulated in sec. 2.3 and discussed in secs. 2.3. through 2.7. must be re-examined with Relative Clauses, Adverbial Clauses, and

Coordinate Structures (cf. I.-H. Lee, in preparation a).

Second, at the present time, I do not have any solution on the matter of a grammaticality scale. For instance, let us see sentence (67).

- (67) Ann ka [_SMary ka [_S *casin* ka ikin kes] lul anta ko] sayngkakhanta.
 SP SP self SP won COMP OP know COMP think
 ‘Ann thinks that Mary knows that *self* won.’

According to W.-C. Kim’s (1976:14) interpretation, in (67) the *Mary-casin* pair is assigned a grammaticality of 100%, while *Ann-casin* 80%. Although it is questionable whether grammaticality judgements can be represented in terms of percentage, it seems to be true that there is a slight difference of acceptability between the two pairs. The analysis I proposed in this paper, as given, cannot account for this phenomenon. The phenomenon involved here, however, seems to be related to the matter of perceptual strategy.

Third, I would like to note a problem common to all the analyses, including mine. The problem comes from sentences such as those given in (68) and (69).

- (68) a. *Yengswu* man *Yengswu* eykey thwuphyohayssta.
 only for voted
 ‘Only *Yengswu* voted for *Yengswu*.’
 b. *Yengswu* man *casin* eykey thwuphyohayssta.
 only self for voted
 ‘Only *Yengswu* voted for *himself*.’
- (69) a. Nwukwuna [_S nwukwuna ka pwucatoykwu ki] lul wenhanta.
 everyone everyone SP become rich COMP OP want
 ‘Everyone wants that everyone becomes rich.’
 b. Nwukwuna [_S *casin* ka pwuchtoy ki] lul wenhanta.
 everyone self SP become-rich COMP QP want
 ‘Every one wants that *self* becomes rich.’

Any anaphora theory which incorporates the notion of morphological identity or coreference does not seem to account for the sentences in (68) and (69), without making use of some sort of arbitrary indexing. I see a possibility that the notion of ‘bound variable’ may be effective in explaining the situation (cf. Bonney 1976, Cooper 1976, Karttunen 196, and Kroch 1976, among others). In my forthcoming study (I.-H. Lee in preparation a) I will explore this and its related problems such as full NP anaphora (see fn. 22), together with remaining works noted above.

3. To summarize, in sec. 1, I examined some insightful works on pronominal anaphora in Korean, which were done by several scholars. It was observed that each of them makes some good points. However, I attempted to note some problems and unfavorable consequences. Specifically, in sec. 1.1., I observed three problematic points in W.-C. Kim (1976). First, it was noted that the algorithms, as they are given, present

some technical problems. Second, I suggested that pronoun interpretation and ϕ pro-form interpretation might better be treated in the same category. A related problem with Kim's disjoint rules was also discussed. Third, it was argued that the proposed constraints, the A-Over-A Principle and the Hierarchical Closeness Principle, produce an unfavorable contradiction in accounting for some examples. Nonetheless, W.-C. Kim's analysis of reflexive *caki* seems to be interesting in that she attempts to formalize the subtle difference of grammaticality judgements.

In sec. 1.2., I examined three works, C. Lee (1973), D.-W. Yang (1975), and H.-B. Lee (1976), all of which assume a transformational approach. I agreed with C. Lee on the assumption that the third person pronoun is not well developed in Korean. I observed that C. Lee attempts to provide a good explanation of ϕ pro-form by making use of the semantic nature of both the matrix verb and the complement verb. However, it was argued that his theory presents certain unfavorable consequences. It was also noted that although he recognizes some apparent relationships between reflexive and ϕ pro-form, he has not attempted to relate them in detail.

As to D.-W. Yang (1975) and H.-B. Lee (1979), it was argued that their assumption about the Korean pronoun does not seem to be convincing. I agreed with H.-B. Lee in the assumption that reflexives and pronouns cannot be in complementary distribution. The complementary distribution hypothesis is assumed in D.-W. Yang (1975). However, I noted that Yang's attempt to relate pronominals and ϕ pro-form in terms of deletion is reasonable. Finally, it was also noted (fn. 24) that H.-B. Lee's rules of insertion/deletion/addition do not seem to be well motivated.

In all of the above mentioned works, I questioned the tenability of the Subject-antecedent Condition on reflexivization. I discussed some counter-examples against this condition. It was argued that they rely too much on this condition. That I noted some difficulties or problems in the above-mentioned works, however, does not necessarily mean that their theories are not correct as a whole. Rather, it should be noted here that many insightful observations are found in all of them.

In sec. 2, I did three things: First, I investigated the distributional characteristics of anaphoric pronominals in Korean. It was suggested that *casin* be the reflexive particle in Korean. Second, in agreement with Song's (1977) insightful study, I discussed a significant syntactic phenomenon of deletion in Korean grammar. Finally, I related this significant syntactic process of deletion to the issue of anaphoric pronominals in Korean, concentrating chiefly on the complement constructions. It was suggested that pro-forms in Korean, except full NP anaphora, be reflexives or ϕ Pro-form. I attempted to relate reflexives and ϕ pro-form in terms of deletion rules and accompanying principles or conditions. Remaining problems were noted in the final sub-section.

To conclude, I do not intend to claim that the proposed alternative analysis is conclusive. Nonetheless, I hope to have shown that the alternative analysis is a more

systematic way of accounting for the pronominal anaphora in Korean, which seems to be entirely consistent with other aspects of Korean grammar.

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