

A Generative Study of Discourse in Korean: on Connecting Sentences

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0. In some models of generative grammar, there is a base rule like (1.a), by which the sentence is expanded to form a coordinate construction as shown in (1.b) (cf. Ross 1967; Stockwell et al 1968).

- (1) a. $S \rightarrow \left\{ \begin{array}{l} \text{and} \\ \text{or} \end{array} \right\} S^n \quad (n \geq 2)$
b. $S_1 \left\{ \begin{array}{l} \text{and} \\ \text{or} \end{array} \right\} S_2 \left\{ \begin{array}{l} \text{and} \\ \text{or} \end{array} \right\} \dots \left\{ \begin{array}{l} \text{and} \\ \text{or} \end{array} \right\} S_n$

However, in the model of sentence grammar whose domain is limited to sentencehood, it is infeasible to attempt to describe two or more sentences in a given discourse as semantically related to each other and syntactically reducible to one single sentence.

By contrast, in a model of discourse grammar the process of sentence reduction can be described in the base by a rule like (2.b), given an initial rule like (2.a).

- (2) a. $D \rightarrow CS^n$ (D—discourse; C—semantic connective)
b. $CS^n \rightarrow S$

The process of sentence reduction, I would like to claim, is an appropriate one in discourse when we take into consideration the fact that in language acquisition or foreign language learning the child or the adult produces syntactically disconnected short sentences first and connects them later to form a syntactically connected long sentence.¹

The purpose of this paper is two-fold: first, I will attempt to provide a general account of connecting sentences with a sentence connective; second, I will attempt to describe three sentence connectives, *ko*, *kose*, and *se* in terms of their semantic properties and syntactic

¹ The linguistic view, as expressed here, which takes into account some psycholinguistic aspect, apparently mixing the notions of 'generating' and 'producing', may be objected to by those who hold the view that competence and performance can and must be kept distinct and by those who are concerned with a competence model. Such an argument, however, is irrelevant to those who would not accept the competence-performance distinction in linguistic description or to those who are interested in the exploration of discourse.

constraints imposed on them. This study is exploratory and provisional since there has been no study of connectives in this direction and the linguistic material treated here is extremely limited.

1. For expository purposes, let us consider two sentences in (3) and ask ourselves whether they are semantically related to each other and, if so, what the semantic relations between them are.

- (3) Mary-nun ay-lul pay-ss-ta. John-hako kyelhonha-yss-ta.²
 -TOP child-ACC bear-PST-PI/D -with marry -PST-PI/D

'Mary got pregnant. ϕ (=Mary) married John.'

Given the two syntactically disconnected sentences like (3), we may easily conceive of a number of semantic relations between them, each being overtly marked by a sentence connective. The expression in (3), for example, is semantically equivalent to any one of the expressions in (4), or for that matter, to any one of the expressions in (5).

- (4) Mary-nun ay-lul pay-ss-ta. $\left\{ \begin{array}{l} \text{Kuli-ko} \\ \text{so-and} \\ \text{Kuli-kose} \\ \text{-then} \\ \text{Kulay-se} \\ \text{-so} \\ \vdots \end{array} \right\} \text{John-hako kyelhonha-yss-ta.}$

'Mary got pregnant. $\left\{ \begin{array}{l} \text{And} \\ \text{Then} \\ \text{So} \\ \vdots \end{array} \right\}$ she married John.'

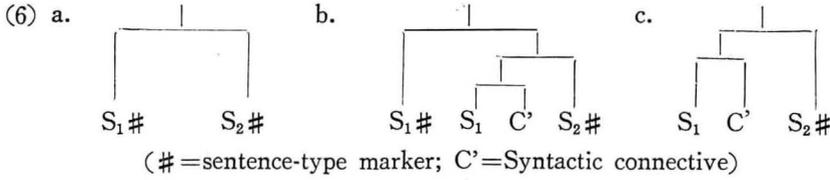
- (5) Mary-nun ay-lul pay- $\left\{ \begin{array}{l} \text{ko} \\ \text{kose} \\ \text{se} \\ \vdots \end{array} \right\} \text{John-hako kyelhonha-yss-ta.}$

'Mary got pregnant, $\left\{ \begin{array}{l} \text{and} \\ \text{then} \\ \text{so} \\ \vdots \end{array} \right\}$ she married John.'

Notice that in (4) the sentence-initial connectives *kuli-ko*, *kuli-kose*, and *kulay-se* are composed of the anaphoric referent *kule* 'so, such', which refers to S_1 , and the sentence connectives *ko*, *kose*, and *se*, respectively.

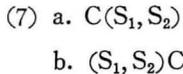
At some intermediate stage of syntactic representation, the three syntactically distinct expressions in (3), (4) and (5) may be represented schematically as in (6).

² Martin's (Yale) Romanization and the Current Spelling System in Korea are adopted. Abbreviations: TOP(ic), ACC(usative), P(a)ST, Pl(ain D-Level), D(eclarative).

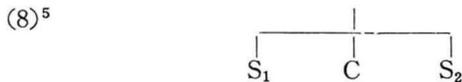


2. In the introductory section we assumed that a sentence reduction rule like (2.b) should have a place in the base of discourse grammar. Given the base rule (2.b), in which C stands for a semantic connective, and given the near surface structures in (6), in which C' stands for a syntactic connective, we may be able to account for the syntactic structures of (6) as having derived from (2.b). The semantic connective C may include such elementary operations in logic as conjunction, disjunction, condition, and bicondition—and also, among others, temporal (simultaneous or, consecutive), causal, and contrastive relations.³

The way in which the semantic connective C connects S₁ and S₂ may be represented as in (7.a) for verb-initial languages or as in (7.b) for verb-final languages.⁴



For ease of exposition, however, I will represent C as standing between S₁ and S₂ as in (8), which then would be taken as deriving from (7) by connective shifting—shifting C to intersentential from initial (or final) position.



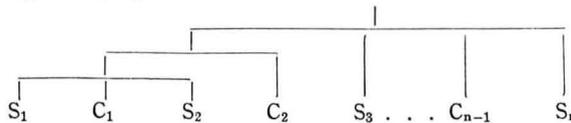
As a first approximation, the structures in (6) may be shown to have derived from (8) by the following transformations. In the case of (6.a): a rule of connective deletion optionally deletes C⁶. In the case of (6.b): S₁ is copied and the copy plus C is adjoined to

³ How many semantic relations can be described as existing in discourse is indeed an important question in discourse grammar, which, however, goes beyond the scope of this study.

⁴ I assume that the semantic connective C is a predicate in logic. For the treatment of prepositions, conjunctions, quantifiers, and the like as predicates in logical structure, see works by J.D. McCawley and other generative semanticists.

⁵ The structure in which more than two sentences are connected may be represented as:

(i) ((S₁-C₁-S₂)-C₂-S₃)...C_{n-1}-S_n) or
 (ii)



⁶ Connective deletion, as well as the rules of (9) and (11), is examined in Section 4 in a discourse frame.

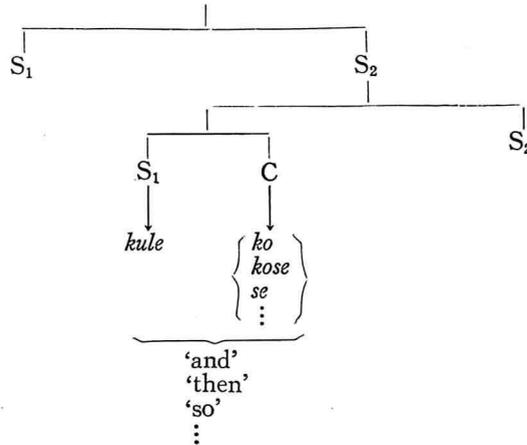
S₂, as formulated in (9).

$$(9) \begin{array}{cccccc} X & - & S_1 & - & C & - & S_2 & - & X \\ 1 & & 2 & & 3 & & 4 & & 5 \Rightarrow (\text{optional}) \\ 1 & & 2 & & 0 [2+3] \# & & 4 & & 5 \end{array}$$

(# = Chomsky-adjointing)

Then, sentence pronominalization applies to the copied S₁, yielding *kule* 'so, such', and C is lexicalized (C → *ko/kose/se* ...), depending on its semantic content.⁷ See the illustration in (10).

(10)



In the case of (6.c), where S₁ and S₂ are formed into one single sentence with C attached to S₁, the rule (11) will do the job.

$$(11) \begin{array}{cccccc} X & - & S_1 & - & C & - & S_2 & - & X \\ 1 & & 2 & & 3 & & 4 & & 5 \Rightarrow (\text{optional}) \\ 1 & & 2 \# 3 & & 0 & & 4 & & 5 \end{array}$$

In a very sketchy manner I have described the three syntactically distinct structures (cf. 6) as derivable from the structure of (8). I have not discussed constraints on derivation, nor the sentence type (or boundary) marked in (6). I will come to these points in the next two sections.

3. In consideration of meaning, the three sentence connectives *ko*, *kose*, and *se*, which I will now discuss, can be expanded as follows: *ko*₁, *ko*₂; *kose*; *se*₁, *se*₂.⁸ For ease of reference, I will set up four semantic connectives, arbitrarily labelled as C_i, C_j, C_k, C_l with

⁷ Note that in English the configuration S₁ C yields an unanalyzable form like *and*, *but*, *then*, *so*, or the like, which can not make discrete the sentential referent and the connective, although one might argue that the shape *th* in *thus*, *then*, etc., has a referential meaning.

⁸ It is not implied that the *ko* has only two senses *ko*₁ and *ko*₂, the *kose* only one, and so on. For the purpose of contrasting one connective to another, they are marked as such.

=Mary-nun John-hako kyelhonha-yss-ta. (Kuli-kose) ay-lul pay-ss-ta.
 -PST- -PST-
 Mary-nun John-hako kyelhonha-yss-ta. (*Kuli-kose) ay-lul pay-l kes-i-ta.
 -PST- FUT(ure)
 Mary-nun John-hako kyelhonha-l kes-i-ta. (*Kuli-kose)ay-lul pay-ss-ta.
 FUT -PST-

'Mary married John and/then ϕ (=she) got pregnant.'

b. Mary-nun ay-lul pay-kose John-hako kyelhonha-yss-ta.

'Mary got pregnant and/then ϕ (=she) married John.'

The first sentence in (18.a) is in the past tense; the tense of S_1 has been obligatorily deleted under identity with that of S_2 .¹⁴ Notice incidentally that the sequence of the two events is marriage-pregnancy in (18.a) and pregnancy-marriage in (18.b), and the two expressions are obviously not synonymous.

I will now consider the type of sentences to be connected by *ko(se)*.¹⁵ In connecting S_1 and S_2 with *kose*, the sentence type of S_1 must be identical to that of S_2 , as illustrated in (19).

(19) a. Declarative-Declarative

Wuli-nun kongpuha-yss-ta. (Kuli-kose) ca-ss-ta.
 we study- sleep-

=Wuli-nun kongpuha-kose ca-ss-ta.

'We studied and/then we slept.'

b. Interrogative-Interrogative

Ne-nun kongpuha-yss-nya? (Kuli-kose) ca-ss-nya?
 you- -Pl/Q

=Ne-nun kongpuha-kose ca-ss-nya?

'Did you study and/then did you sleep?'

c. Imperative-Imperative

Kongpuhay-la! (Kuli-kose) ca-la!
 -Pl/Imp

=Kongpuha-kose ca-la!

'Study and/then sleep!'

¹⁴ The rule of tense reduction may be formulated roughly as follows:

Tense reduction: [X-TENSE-X]_s-C_i-[X-TENSE-X]_s
 $\begin{matrix} 1 & 2 & 3 & 4 & 5 & 6 & 7 \\ 1 & 0 & 3 & 4 & 5 & 6 & 7 \end{matrix} \Rightarrow (\text{oblig})$
 Conditions: 2=6; C_i=kose

¹⁵ The term 'sentence type' is used in a traditional sense of classifying sentences on syntactic grounds, e.g. declarative, interrogative, imperative, propositive, and the like. For some discussion of modality and sentence type, see Chang 1972 b.

d. Propositive-Propositive

Kongpuha-ca! (Kuli-kose) ca-ca!
 -Pl/Prop
 =Kongpuha-kose ca-ca!
 ‘Let’s study and/then sleep!’

The fact that different sentence types cannot be connected by *kose* can be seen from the sentences of (20.b), which are not identical to the corresponding sentences of (20.a).

- (20) a. Ne-nun kongpuha-yss-ta. (*Kuli-kose) $\left\{ \begin{array}{l} \text{ca-ss-nya?} \\ \text{ca-la!} \\ \text{ca-ca!} \end{array} \right\}$
 b. Ne-nun kongpuha-kose $\left\{ \begin{array}{l} \text{ca-ss-nya?} \\ \text{ca-la!} \\ \text{*ca-ca!}^{16} \end{array} \right\}$ $\left\{ \begin{array}{l} (=19. c) \\ (=19. b) \end{array} \right\}$

3.3. I will now turn to *se*. *Se* seems to have at least two senses, closely related yet distinct: time-stressed consequential se_1 and effect-stressed consequential se_2 . In general, the semantic property of *se* (in S_1 -*se*- S_2) is such that S_2 is described as a natural consequence of S_1 , with stress on either time-sequence (se_1) or effect (se_2). In the sense of se_1 , or C_k , it is very similar to *kose* in meaning and the same set of constraints seems to apply to se_1 as well. Consider (21) and notice the two senses of *se* in translation, ‘then’ and ‘so’.

- (21) Mary-nun John-hako kyelhohay-se ay-lul pay-ss-ta.
 $\left\{ \begin{array}{l} \text{-then} \\ \text{-so} \end{array} \right\}$

‘Mary married John, $\left\{ \begin{array}{l} \text{then} \\ \text{so} \end{array} \right\}$ she got pregnant.’

Compare now the sentence (18.a) with (21), in which the *se* is used in the sense of se_1 . The two sentences might appear to have the same meaning, but they are distinct. In the case of the *kose*-sentence the semantic relation between the two events described by S_1 and S_2 need not be a cause-effect relation, whereas in the case of the *se*-sentence the relation needs to be a cause-effect relation, one event following the other as a natural consequence. To elaborate the subtle difference in meaning, we may be able to say that in (21) the person responsible for Mary’s pregnancy is John but in (18.a) the person responsible for her pregnancy may be John (in a normal or conventional sense) or may not be. Thus notice that (22.a) is unacceptable and (22.b) is well-formed.

- (22) a. *Mary-nun John-hako kyelhohay- se_1 Bill-uy ay-lul pay-ss-ta.
 -of

¹⁶ *Ne-nun kongpuha-kose ca-ca* is ill-formed because it is in violation of the condition that a propositive sentence requires its subject to be ‘we’ (or, more precisely, ‘I’ plus optional ‘you’—cf. Chang 1972b).

'Mary married John, then she is bearing Bill's baby.'

b. Mary-nun John-hako kyelhonha-*kose* Bill-uy ay-lul pay-ss-ta.

'Mary married John, and then she is bearing Bill's baby.'

With respect to the constraint on the se_2 construction, it is free of the constraints operating in the *kose* or se_1 construction. However, it has some other constraints. For instance, the event described by the nonstative verb of S_1 must be the one in the past without respect to the time of the event or state described in S_2 . See examples in (23).

(23) Mary-ka ay-lul pay- se_2 John-un hayngpokha- $\left\{ \begin{array}{l} \text{ta.} \\ \text{yss-ta.} \\ \text{I kes-i-ta.} \end{array} \right\}$
 -NOM happy-

'Mary got pregnant, so John $\left\{ \begin{array}{l} \text{is} \\ \text{was} \\ \text{will be} \end{array} \right\}$ happy.'

se_2 has also a constraint on the sentence type: either S_1 or S_2 must not be imperative or propositive. Consider the illustrations in (24).

(24) a. Ne-nun philoha-ta. (*Kulay- se_2) ca-la!
 tired

=*Philohya- se_2 ca-la!

'You are tired, so go to bed!'

b. Wuli-nun philoha-ta. (*Kulay- se_2) ca-ca!

=*Philohay- se_2 ca-ca!

'We are tired, so let's go to bed.'

c. Ilhay-la! (*Kulay- se_2) ton-ul pele-la!
 work- money- earn-

=*Ilhay- se_2 ton-ul pele-la!

'Work, so earn the money.'

d. Ilhay-la! (Kulay- se_1) ton-ul pele-le!

=Ilhay- se_1 ton-ul pele-al!

'Work, then earn the money.'

Notice that in (24.c,d,) where the verb of S_1 is nonstative, the *se* is interpreted not in the sense of se_2 , but in the sense of se_1 or 'by (means of)'.

Let me now note that *se* may be deleted optionally under certain conditions. Compare (21) with (25), in which *se* (either se_1 or se_2) is not present.

(25) Mary-nun John-hako kyelhonhay ay-lul pay-ss-ta.

The deletion of *se* may be described as having to do with the deletion of *se* from *kose* as we observed earlier in Section 3.2. Conditions on the deletability of *se* require further study.

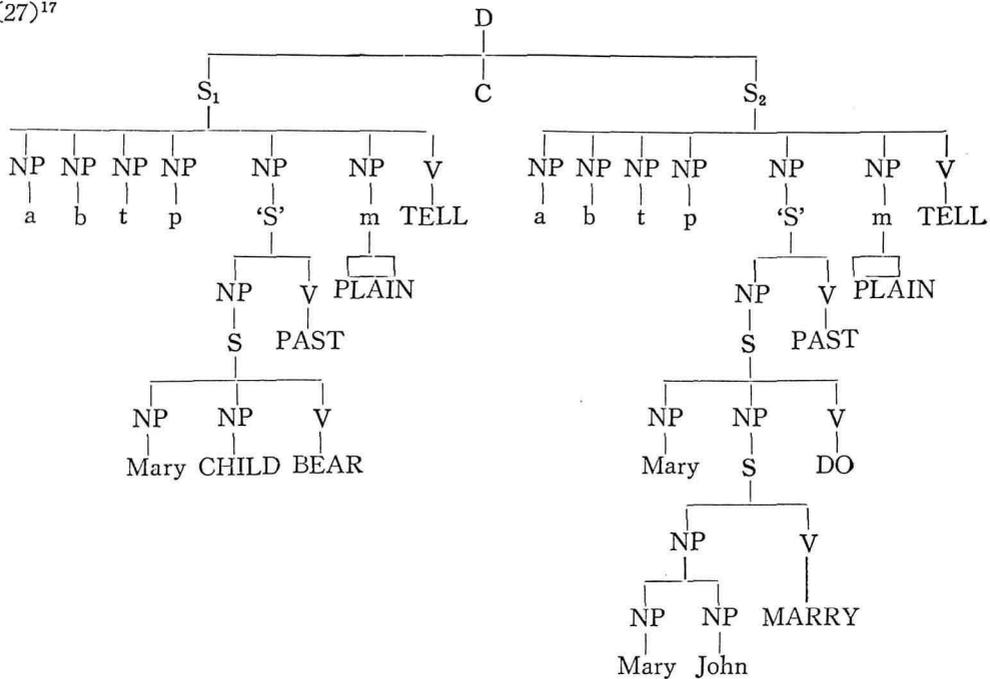
including investigation on the semantic content, specifically the aspectual meaning, of S_1 .

4. I will now describe the semantic structure of S_1 and S_2 connected by C (cf. 8), in the discourse-frame I have attempted to develop elsewhere (of. Chang 1972). And I will reconsider the derivations of (6) from (8) presented in Section 2 as an approximation.

Given a discourse-sentence containing deictic elements like the speaker (a), the hearer (b), utterance time (t), utterance place (p), the manner of speaking (m), and the discourse-verb (e.g. TELL), the semantic structure of (3), repeated here as (26), may now be represented roughly, details aside, as in (27).

(26) Mary-nun ay-lul pay-ss-ta. John-hako kyelhonha-yss-ta.

(27)¹⁷



The semantic connective C is to be specified as C_i , C_j , C_k , C_l , or the like, depending on its semantic property. Suppose the C in (27) is specified as C_j or 'AND'. Subtrees S_1 and S_2 undergo usual transformations, such as predicate raising, equi-NP deletion, conjunct extraposition, tree pruning, topicalization, etc. Before the realization of the discourse level

¹⁷ The semantic content 'CHILD' may be expressed as index x_1 with its description: ' x_1 child John $\rightarrow x_1$ is John's child', following J.D. McCawley (cf. McCawley 1967, 1970). For the positing of 'DO' as the proverb of an act, see Ross 1972. The structure of 'Mary marries John.' is based on Quang's proposal (1971), which is a revision of Lakoff and Peters' (1966): in Korean the comitative *John-hako* may be described as derived from conjunct extraposition, only if the first conjunct (*Mary* in this case) is regarded as the sole agent.

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