A SEMANTIC ANALYSIS OF THE TOPIC PARTICLES IN KOREAN AND JAPANESE

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I. Introduction

The Korean particles *-nun*(는) and *-un*(은) and the Japanese particle *-wa*(は) are one of the most elusive and deceptive problems in the languages respectively. They are also characteristic features of the two languages differing from English and some other languages. The Japanese particle and the Korean *-nun/un*[1] resemble each other in many respects. This is an attempt to find out the semantic features of the two and show by comparison how they resemble each other. It will also reveal the grammatical characteristics of those particles because our analysis will make use of syntactic devices though grammar is not our main concern.[2] In addition, to the extent that the particles are characteristics of the languages, the study will show a new direction possible in the study of the two languages.

The procedure followed is first to find out phrase structures underlying the sentences to be analyzed. That is, the sentences will be considered as the outputs of underlying structures and a set of one or more transformational processes. In reference to the underlying phrase structures from which the derived structures to be analyzed are drawn, semantic features will be assigned to the particles. However, one contrastive use between *-nun/un* and *-i/ka*

[1] The two forms are in comlementary distribution, *-nun* occurring after vowels and *-un* after consonants. They may be conveniently written as *-nun/un*.

[2] In regard to a new linguistic trend in which syntax and semantics are systematically incorporated, see Chomsky 1957, pp. 92-105, Chomsky 1965, pp. 15-18, pp. 148-163, Katz and Fodor 1963, pp. 479-518, and Katz and Postal 1964. In the theories of these transformationalists, the linguistic theory of a language consists of three components, *phonological*, *syntactic* and *semantic*, and the syntactic component is a device which relates the phonological and the semantic components. As the syntactic component specifies both a deep structure that determines the semantic interpretation of a sentence and a surface structure that determines its phonetic interpretion, the phonological and the semantic components which are both "interpretive" have to depend on the syntactic.

(이, 가)[3] in Korean and also the contrastive use between *-wa* and *-ga*(が)[4] in Japanese will be analyzed by the supposition or entailment method developed by Fillomore[5] because the transformational device alone does not seem to be adequate enough to bring out the significant difference in those contrasting pairs.

In order to describe the underlying P-markers of the sentences under analysis, a rough skeleton of Phrase Structure rules will be set up and it will be shown how the sentences can be derived from those sets of UPs by transformations. Then we will be ready to assign the semantic features to those DPs.[6]

II. The Data and the Phrase Structures.

In the course of analysis it has been found out that Korean and Japanese have almost identical syntactic structures as far as those particles are concerned. Therefore we will not take trouble to list them separately but rather list for convenience each set of the Korean and the corresponding Japanese sentences together.[7] The main concern of our analysis is the structures[8]:

X	$\begin{Bmatrix} nun \\ un \end{Bmatrix}$	Y	$\begin{Bmatrix} ka \\ i \end{Bmatrix}$	(Z′) Z	(Korean)
X	*wa*	Y	*ga*	(Z′) Z	(Japanese)

We have below six sets of sentences which have superficially the same grammatical

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[3] *-i/ka* are also in complementary distribution analogous to *-nun/un* (footnote 2). It is the subjective case particle.

[4] *-ga* is the subjective case particle in Japanese.

[5] C.F. Fillmore (see References), pp. 60-82.

[6] A P-marker (=Phrase marker) describes the constituency relations between the morphemes of a sentence. In transformational structural description, one or more transformational rules operate on a P-marker and derive a new P-marker. The former (on which transformations operate) is referred to as UP (=underlying P-marker) and the latter as DP (=derived P-marker). Katz and Postal, 1964, p. 7.

[7] Martin's Yale Romanization is used in presenting Korean. Martin, 1954 a, pp. 1-2. For phonetic symbols for the romanization, see Kim 1957 a, p. 72. Also for Japanese, Martin's system is used. Martin, 1954 b.

[8] The parenthesized Z′ is introduced in the structure to represent the indirect or the direct object as in K 2 a, J 2 a, K 2 b and J 2 b. This is the case when the underlying structure has two objects (as in K 9 and J 9) each of which can be transformed with the result that the two different transformations (one of the indirect and the other of the direct objects) manifest different surface structures as in K 2 a vs. K 2 b and J 2 a vs. J 2 b. There are also some other types of structures in which the particles, *-nun/un* and *-wa* occur. In such structures the particles do not take place of other particles as they do in III. Transformation and Supposition but are added to some other particles. For example, in *khal-lo-nun toyciman myento-lo-nun antoynta* (칼로는 되지만 면도로는 안된다), *-nun* is added to the particle *-lo* already attached to *khal* and *myento*. The extension of the present study will cover such structures in the future.

structure:

K1	*i*	*chayk*	*-un*	*apeci*	*-ka*	*sasyetta*
J1	*kono*	*hon*	*-wa*	*chichi*	*-ga*	*katta.*
	this	book	( )	father	( )	bought

—My father bought this book.

K2a	*ku*	*-nun*	*sensayngnim*	*-i*	*chayk*	*-ul*	*cwusyetta*
J2a	*kare*	*-wa*	*sensei*	*-ga*	*hon*	*-o*	*kudasatta*
	him	( )	teacher	( )	book	( )	gave

—The teacher gave him a book.

K2b	*cayk*	*-un*	*sensayngnim*	*-i*	*ku*	*-eke*	*cwusyetta*
J2b	*hon*	*-wa*	*sensei*	*-ga*	*kare*	*-ni*	*kudasatta*
	book	( )	teacher	( )	him	( )	gave

—The teacher gave him a book.

K3	*apeci*	*-nun*	*khi*	*-ka*	*khusita*
J3	*chichi*	*-wa*	*se*	*-ga*	*takai*
	father	( )	height	( )	tall

—My father is tall.

K4	*hankwuk*	*-un*	*san*	*-i*	*mantha*
	Korea	( )	mountain	( )	many

—There are many mountains in Korea. (Korean)
(Korea is a hilly country.)

J4	*nihon*	*-wa*	*onsen*	*-ga*	*ooi*
	Japan	( )	hot spring	( )	many

—There are many hot springs in Japan. (Japanese)

K5	*kaul*	*-un*	*santulpalam*	*-i*	*pwunta*
J5	*aki*	*-wa*	*soyokaze*	*-ga*	*huku*
	fall	( )	gentle wind	( )	blow

—Gentle wind blows in fall.
(We have gentle wind blowing in fall.)

In addition to those sentences we also have,

K6	*nay*	*-ka*	*pise*	*ipnita*
J6	*watakushi-ga*		*hisho*	*desu*
	I	( )	secretary	be

—I am the secretary.

K 7 *na* *-nun* *pise* *ipnita*

J 7 *watakushi-wa* *hisho* *desu*

I ( ) secretary be

—I am a secretary.

Those sentences have been selected in order to represent the main types of construction features of the particles. In the following we see some sentences which have similar meanings to some of the above sentences but with different particles and structures.

K 8 *apeci* *-ka* *i* *chayk* *-ul* *sasyetta*

J 8 *chichi* *-ga* *kono* *hon* *-o* *katta*

father ( ) this book ( ) bought

—My father bought this book.

K 9 *sensayngnim* *-i* *ku* *-eke* *chayk* *-ul* *cwusyetta*

J 9 *sensei* *-ga* *kare* *-ni* *hon* *-o* *kudasatta*

teacher ( ) he (to) book ( ) gave

—The teacher gave him a book.

K 10 *apeci* *-ui* *khi* *-ka* *khusita*

J 10 *chichi* *-no* *se* *-ga* *takai*

father (of) height ( ) tall

—The height of my father is tall.

(My father is tall.)

K 11 *hankwuk* *-e* *san* -i *mantha*

Korea (in) mountain ( ) many

—In Korea mountains are many.

(There are many mountains in Korea.

Korea is a hilly country.) (Korean)

J 11 *nihon* *-ni* *onsen* *-ga* *ooi*

Japan (in) hot spring ( ) many

—In Japan hot springs are many.

(There are many hot springs in Japan.) (Japanese)

K 12 *kaul* *-e* *sandulpalam* *-i* *pwunta*

J 12 *aki* *-ni* *soyokaze* *-ga* *huku*

fall (in) gentle wind ( ) blow

—Gentle wind blows in fall.

(We have gentle wind blowing in fall.)

In reference to the sentences K6—J6 and from K8—J8 to K12—J12, we set up the following set of phrase stucture rules which is far from being exhaustive but only represents some basic characteristics of the two languages, especially in respect to the structures involving those particles.[9]

Phrase Structure Rules for Korean and Japanese:

1. Comment → (Adv.comm) Statement

   Adv.comm=comment adverb

2. Adv.comm → NP+ $\begin{Bmatrix}Pt\\Pl\end{Bmatrix}$

   Pt=temporal particle
   Pl=locative particle

3. Statement → Subject+ Predicate

4. Subject → NP+Ps

   Ps=subjective particle

5. NP → $\begin{Bmatrix}Pron\\(Mod)\ N\end{Bmatrix}$

   Pron=pronoun
   Mod=modifier
   N=noun

6. Mod → $\begin{Bmatrix}N+Pp\\(Dem)\ (Preadj)\ (Adj)\end{Bmatrix}$

   Pp=possessive particle
   Dem=demonstrative
   Preadj=pre-adjective
   Adj=Adjective

7. Predicate → $\begin{Bmatrix}NP+Cop\\Adjval\\Vbal\end{Bmatrix}$

   Cop=copula
   Adjval=adjectival
   Vbal=verbal

8. Cop → Cop.s+End

   Cop.s=copula stem
   End=ending

9. Adjval → (Preadj) Adj.s+End

   Adj.s=Adjective stem

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[9] Not all of the Phrase Structure and Lexical rules in this study give complete representations of morphemic units or phonological representations. For example 25. Adj.s→*khusi* actually includes *si* (an honorific morpheme). Some features irrelevant to the analysis of the topic particles have not been elaborated.

10. Vbal →(Adv.pr) $\begin{Bmatrix}\text{C.obj+Vt}\\ \text{Vi}\end{Bmatrix}$

C.obj=objective complement
Adv.pr=predicate adverb

11. Vt → $\begin{Bmatrix}\text{Vt1}\\ \text{Vt2}\end{Bmatrix}$

Vt1=common transitive verb
Vt2=dative verb

12. C.obj → $\begin{cases}\text{Cdo} & \text{in env.}\_\_\_\_\text{Vt1}\\ \text{(Cio)Cdo} & \text{in env.}\_\_\_\_\text{Vt2}\end{cases}$

Cdo=direct object
Cio=indirect object

13. Cdo → NP+Po

Po=direct objective particle

14. Cio → NP+Pi

Pi=indirect objective particle

15. Vt1 → Vt1.s+End

Vt1.s=common transitive verb stem

16. Vt2 → Vt2.s+End

Vt2.s=dative verb stem

17. Adv.pr → $\begin{Bmatrix}\text{adv}\\ \text{NP+ptcl}\end{Bmatrix}$

adv=adverbs
ptcl=particles other than Ps, Pp, Po, Pi.

18. Vi → Vi.s+End

Vi.s=intransitive verb stem

Lexical Rules for Korean:

19. Pt → *-e*

20. Pl → *-e*

21. Ps → $\begin{cases}\textit{-i} & \text{in env. -C}\_\_\_\_\\ \textit{-ka}, & \text{in env. -V}\_\_\_\_\end{cases}$

22. Pron → *na* 'I',...

23. N → *apɛci* 'father', *chayk* 'book', *khi* 'height', *hankwuk* 'Korea', *san* 'mountain', *kaul* 'fall', *santulpalam* 'gentle wind', *pise* 'secretary',...

24. Pp → *-ui*

25. Adj.s → *khusi-* 'tall, *manh* 'many',...

26. Vt.s → *sasyet-* 'bought',...

27. Po → $\begin{cases}\textit{-ul} & \text{in env. -C}\_\_\_\_\\ \textit{-lul} & \text{in env. -V}\_\_\_\_\end{cases}$

28. Vt2.s → *cwusyet-* 'gave',...

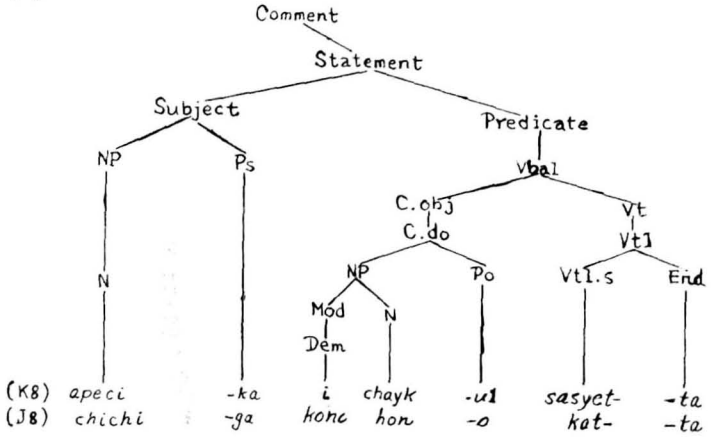
29. Vi.s → *pwun-* 'blow',...
30. Pi → *-eke*
31. End → *-ta*

Lexical Rules for Japanese :

32. Pt → *-ni*
33. P1 → *-ni*
34. Ps → *-ga*
35. Pron → *watakushi* 'I',.....
36. N → *chichi* 'father', *hon* 'book', *se* 'height', *nihon* 'Japan', *onsen* 'hot spring', *aki* 'fall', *soyokaze* 'gentle wind', *hisho* 'secretary',.....
37. Pp → *-no*
38. Adj.s → *taka-* 'high, tall', *oo-* 'many',.....
39. Vt1.s → *kat-* 'bought',.....
40. Po → *-o*
41. Vt2.s → *kudasat* 'gave',.....
42. Vi.s → *huk-* 'blow'
43. Pi → *-ni*
44. End → *-i*, *-ta*, *-u*.

III. Transformations and Supposition.

Fig. 1 (K8—J8)



Before we proceed to the rules, we will examine the P-markers for all those sentences for which the PS rules have been set up, the sentences K8—J8 to K12—J12. The highest dominating marker in those is *Comment* as it has already been noted in the PS rules.

Fig. 2 (K9—J9)

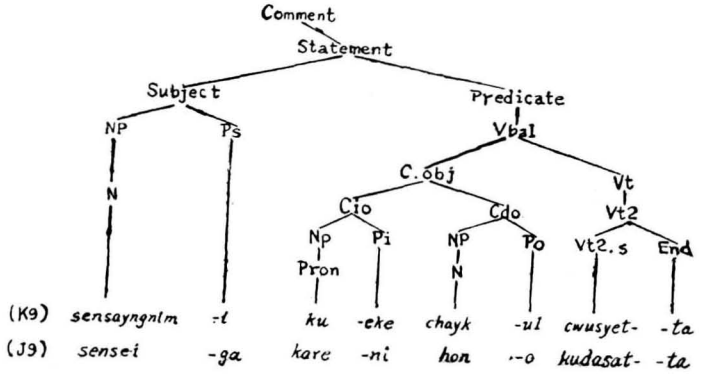


Fig. 3 (K10—J10)

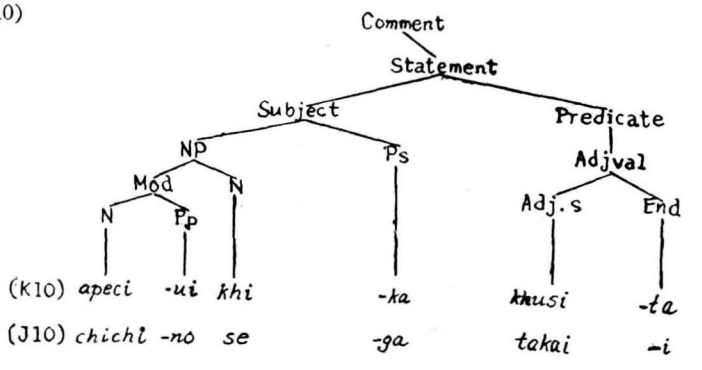


Fig. 4 (K11—J11)

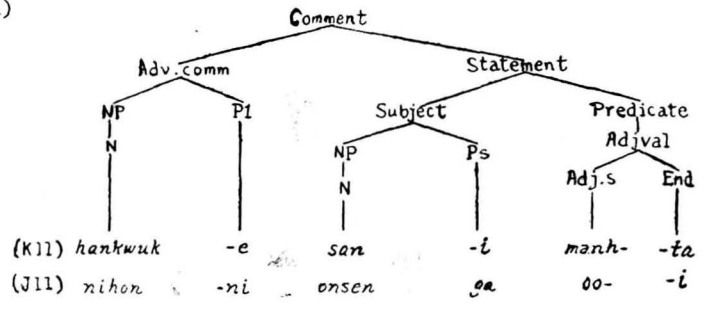
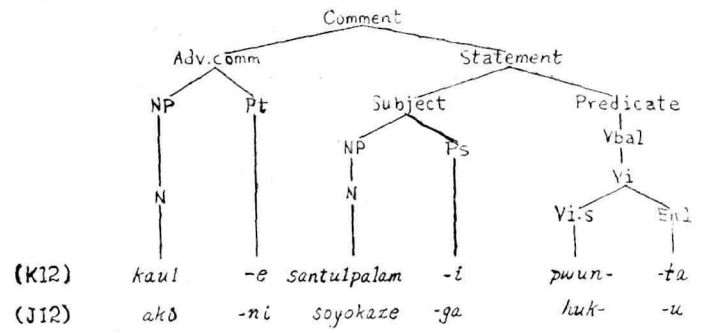


Fig. 5 (K12—J12)



The transformation rules to be applied to the Korean and Japanese structures in the above are exactly the same. T1 is the *Topic Transformation* rule according to which one component of the *Comment* concerned is picked up as the topic of the sentence and hence receives more attention or becomes a sort of focus of the statement made by the sentence as a whole.

T1 $\left\{\begin{matrix}\text{Pi}\\ \text{Po}\\ \text{Pp}\\ \text{Pl}\\ \text{Pt}\end{matrix}\right\} \longrightarrow \text{Ptop}$ Ptop=topic particle

in env. $\begin{cases}1.\ \text{NP}_2+\text{Ps}+\text{NP}_1+\text{———}+\text{Z}\\ 2.\ \text{NP}_1+\text{———}+\text{NP}_2+\text{Ps}+\text{Z}\end{cases}$

Z=Predicate minus NP_1 and its particle

T2 $\text{NP}_2+\text{Ps}+\text{NP}_1+\text{Ptop} \longrightarrow \text{NP}_1+\text{Ptop}+\text{NP}_2+\text{Ps}$

in env. ———————+Z

Additional Lexical Rule for Korean:

45. $\overset{\circ}{\text{Ptop}} \rightarrow \begin{cases}\textit{-nun} & \text{in env. -V———}\\ \textit{-un} & \text{in env. -C———}\end{cases}$

Additional Lexical Rule for Japanese:

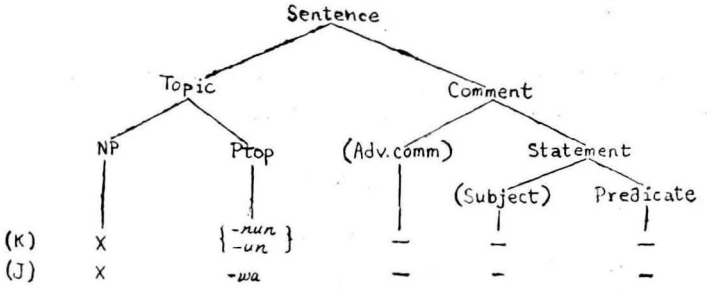
46. Ptop ⟶ *-wa*

T2 is a permutation rule which shifts around the positions of two constituents in each rule. T1 is an optional rule while T2 is obligatory once T1 has been applied to any string of markers. As the result of the application of those rules, K1 can be derived from K8, J1 from J 8, K2a and K2b from K 9, J2a and J2b from J 9, K3 from K 10, J 3 from J10, K4 from K11, J4 from J11, K5 from K12, and J5 from J12.[10] After we have applied T1

[10] This is not to be interpreted as meaning that the transformed sentences can be derived directly from the sentences K 8, K 9, ...K 12. It is only meant that the P-markers (DP) for the the transformed sentences may be derived from the P-markers (UP) for the sentences K8, ...K 12.

and T2 to those different UPs for the sentences K8—J12 (Figs 1—5), we get the same type of dominating node *Topic* for all those different nodes in the UPs, Cdo (Fig. 1), Cio (Fig. 2), Cdo (also Fig. 2), Mod (Fig. 3), Adv.comm (Fig. 4) and Adv.comm (Fig. 5). The newly derived node *Topic* may be represented by the P-markers as in Fig. 6.

Fig. 6



The only difference in the P-markers dominated by *Comment* in this DP (Fig. 6) from those in Figs 1—5 is that the one in the DP lacks the part which has been transformed and shifted to the position of *Topic* node. This DP structure is so common in both Korean and Japanese that it seems more natural to consider a sentence as consisting of *Topic* and *Comment* than of any other possibilities.

In the pair of sentences K7—J7, *-nun* and *-wa* are obviously subjective case as well as *-ka* and *-ga* are both subjective in the pair K6—J6. In such cases, too, it is possible to set up another transformation rule (Topicalization 2) or to incorporate it in T1, if we consider the pair K6—J6 as representing the UP and the pair K7—J7 as the DP. But in such cases it does not look easy to make out the difference in meaning by transformational device first of all because the meaning difference is not of the difference of truth value of those sentences but rather of different attitudes of the speaker depending upon situations. It does not reveal anything new by transforming the sentence with *-ka* into one with *-nun/un* or by transforming the sentence with *-ga* into onew ith *-wa*. As Fillmore's entailment device looks good for our purpose on the other hand, we will try according to his line of thought in the following. Both K6 and J6 mean "I am the secretary," and both K7 and J7 are given the translation "I am a secretary." The difference in translation "the" and "a" in those two, however, does not show the real difference between the two sets but rather only a reflection

of some other difference. The former set may be paraphrased "It is not anybody else but I that is the secretary," while the second set may be "I am a secretary while somebedy else is *not* a secretary but something else." This difference may be brought out by introducing two different entailment rules for the sets.

In *nay-ka pise ipnita* (K6)

$$\text{EK1.}\quad (\text{NP}+i/ka+\text{Z})\ \textit{entails}\begin{cases}(\alpha(\text{NP}))+\text{Z}\\(-\alpha(\text{someone else}))+\text{Z}\end{cases}$$

where Z represents any type of *Predicate* and α and $-\alpha$ is a set of sign-changing rule representing the opposite negative-positive value to each other. Similarly in *watakushi-ga hisho desu* (J6),

$$\text{EJ1.}\quad (\text{NP}+ga+\text{Z})\ \textit{entails}\begin{cases}(\alpha(\text{NP}))+\text{Z}\\(-\alpha\ (\text{someone else}))+\text{Z}\end{cases}$$

which means exactly the same as EK1.

For *na-nun pise ipnita*, (K7),

$$\text{EK2.}\quad (\text{NP}+nun/un+\text{Z})\ \textit{entails}\begin{cases}\text{NP}+(\alpha(\text{Z}))\\\text{Someone else}+(-\alpha(\text{Z}))\end{cases}$$

Exactly in the same manner, *watakushi-wa hisho desu* (J7)

$$\text{EJ2.}\quad (\text{NP}+wa+\text{Z})\ \textit{entails}\begin{cases}\text{NP}+(\alpha(\text{Z}))\\\text{Someone else}+(-\alpha(\text{Z}))\end{cases}$$

IV. Conclusion

From the discussion in the above the following may be summarized.

1. The topic particles are not the subjective case nor do they represent only three or four cases. They represent at least the six cases discussed in this article.

2. The topic particles may be successfully considered as the transform of some other case particles. The topic particles substitute for various particles, holding the same case relations and adding the meaning of topicalization or contrast.[11]

[11] The study seems to support *partially* Noam Chomsky's remark that "Topic-Comment is the basic grammatical relation of surface structure corresponding (roughly) to the fundamental Subject-Predicate relation of deep structure." He also defines "the Topic-of the Sentence as the leftmost NP immediately dominated by S in the surface structure, and the Comment-of the Sentence as the rest of the string." (Chomsky 1965, p. 220 f). We consider the support partial because he seems to imply (note his word "roughly") that the correspondence between the Topic-Comment of a sentence and the Subject-Predicate of deep structure is extensive even though he gives the sentence "This book I really enjoyed" as one of the counter-examples in English. From the present study it may be assumed that Topic-Comment is the basic grammatical relation of surface structure corresponding to *some other case relations* (including Subject-Predicate) of deep structure. As to the position of the Topic of a sentence, the study seems to support Chomsky fully (see the permutation rule T2) even though there are examples of sentences in which some other elements appear to the left of

3. The semantic features of the particles may be drawn in chart as the following : [12]

Cases / K / J	topic	subj	dative	object	possess	locat	temp	contrast	
								subj	pred
−nun/un	−wa	+	+	+	+	+	+	+	−	±
−ka/i	−ga	−	+	−	−	−	−	−	±	−
−eke	−ni	−	−	+	−	−	−	−	−	−
−ul	−o	−	−	−	+	−	−	−	−	−
−ui	−no	−	−	−	−	+	−	−	−	−
−e	−ni	−	−	−	−	−	+	−	−	−
−e	−ni	−	−	−	−	−	−	+	−	−

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the Topic. In such cases the leftmost elements seem to weaken the topicalization effect at least in Korean and Japanese. This observation needs further study before it can be fully described. It must be added that this proposal about Topic-Comment was suggested to Chomsky by Paul Kiparsky. (ibid, p. 221).

[12] In regard to the subject and the predicaste contrats in the topic and the subjective particles, stress also seems to be relevant which is not included in the present study.