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**Topicality, Genericity, and Logophoricity:
The Postpositional Markers *nun* in Korean and *wa* in Japanese
from an Argument Perspective**

A Dissertation
Presented to the Faculty of the Graduate School
of
Yale University
in Candidacy for the Degree of
Doctor of Philosophy

by
Seungja Kim Choi

Dissertation Director: Professor Laurence R. Horn

May 2000

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Abstract

Topicality, Genericity, and Logophoricity: The Postpositional Markers *nun* in Korean and *wa* in Japanese from an Argument Perspective

Seungja Kim Choi

2000

This dissertation presents an account of the postpositional markers *nun* in Korean and *wa* in Japanese from an argument perspective. The overall theme is the nature of the structures of the topic-comment sentences, generic sentences, predicate denial sentences, contrastive sentences, and logophoric sentences in which both markers appear in these languages.

Based on the cognitive property of being categorical and the logical property of being representable by tripartite structures that underlie the topic-comment sentences, generic sentences, and predicate denial sentences, I claim that *wa/nun* is essentially a marker for presupposition in the sense that it refers anaphorically to the previous information. I propose that this complex meaning of the marker, anaphoric presupposition, must be represented by an argument structure of a relational noun with two grids, $y\ x$, as opposed to the case markers which have only one argument. Thus, the NP marked with *wa/nun* is referentially defective in the sense that it cannot occur without some type of antecedent, explicit or implicit. The argument structure hypothesis of the postpositional marker is further supported by the elucidation of the inherent relation between anaphoricity and logophoricity, the relation between anaphoricity and contrastiveness, and the interaction of the marker with negative scalar sentences.

The important tools and assumptions in explicating the underlying structures of the above sentences are the notion of TRIPARTITE STRUCTURES (cf. Heim 1982), the cognitive distinction between CATEGORICAL JUDGMENT and THETIC JUDGMENT (cf. Kuroda 1992), Aristotle's PREDICATE TERM vs. PREDICATE DENIAL negations, and Horn (1989)'s theory

of metalinguistic negation which is based on the distinction between the ASSERTIBILITY of a statement vs. the TRUTH of a proposition.

Chapter 1 is the Introduction. Chapter 2 critically reviews the two syntactic approaches on the marker *nun* and *wa*: Whitman (1989)'s Modal Licensing Hypothesis and Brockett (1991)'s Generic Raising Hypothesis. Chapter 3 is devoted to the examination of the four types of sentence structures in which these markers occur: that is, generic sentences, topic-comment sentences, contrastive sentences, and logophoric sentences. Chapter 4 investigates the interaction of *nun/wa* with negation in declaratives, quantifiers, and scalar predicates. Chapter 5 will conclude with a summary of the thesis and a discussion of theoretical implications.

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Abbreviations & Glosses

ACC	= accusative
AGR	= agreement
AGRP	= Agreement Phrase
ATT	= attributive
APP	= apperceptive
C/COMP	= complementizer
CP	= Complementizer Phrase
DAT	= dative
DECL	= declarative
EXCL	= exclamatory
f.	= feminine
FUT	= future
GEN	= genitive
GER	= gerund
HON	= honorific
Infl	= inflection; head of IP
IMP	= imperfective
IMPR	= imperative
INF	= infinitive
IP	= Inflection Phrase
J	= Japanese
K	= Korean
LOC	= locative
m.	= masculine
M	= modal
MOD	= modifier
MP	= Modal Phrase
n.	= neutral
NEG	= negation
NML	= nominalizer
NOM	= nominative
NP	= Noun Phrase
PASS	= passive

PAST	= past
PL	= plural
POL	= polite
PP	= Prepositional Phrase
PRES	= present
PREMP	= presumptive
PRF	= perfective
PROG	= progressive
PROP	= propositive
Q	= question marker
RET	= retrospective
sg.	= singular
SUSP	= suspective
T	= tense; head of TP
TOP	= topic marker
TP	= Tense Phrase
V	= verb; head of VP
VP	= Verb Phrase

The Japanese and Korean examples are transcribed using the YALE ROMANIZATION systems. For the transcription system for Japanese, the reader is referred to (Martin 1987: 15), and for Korean, please see (Martin 1992: 8-12).

Chapter 1

Introduction

The objective of this thesis is to explore a new view of the postpositional marker *nun* in Korean and its counterpart *wa* in Japanese from an argument structure perspective. These so-called topic markers, which have been the research focus of many scholars from different approaches for decades, are still considered to be a “perennial problem” in Japanese and Korean linguistics because of their seemingly diverse functions, elusive meanings, and intricate interactions with both assertive and negative scopes. The mystery of these markers is that while linguists and teachers of Japanese and Korean as a foreign language have an extremely difficult time explaining what these markers are, native speakers know when to use and when to not, if given a context, though they cannot describe the rules of the game. What makes these markers particularly interesting is the fact that both markers appear in generic sentences, topic-comment sentences, and predicate denial sentences, which will be shown in this thesis to share the cognitive property of being categorical and the logical property of being representable by tripartite structures, as well as in contrastive sentences and logophoric sentences in these languages.

Let us take some concrete examples of these sentences.

- (1) kilum-un¹ mul wi-ey ttu-n-ta.
 oil-TOP water up-on float-DECL
 ‘Oil floats on water.’

Sentence (1) is a generic sentence, where the property of *mul wi-ey ttu-n-ta* ‘floating on the water’ is asserted of *kilum* ‘oil’ which is marked by *nun*.

¹ The postpositional marker has two shapes: *nun* after a vowel and *un* after a consonant.

- (2) i panci-nun nay ayin-eykey cwu-keyss-ta
 this ring-TOP my girlfriend-to give-will- DECL
 ‘I will give this ring to my girlfriend.’

In (2) the particle is attached to *I panci* ‘this ring’, which is the topic. The particle is also used to mark the constituent of which the predicate is denied in a negative sentence, which I will call a predicate denial sentence as in (3).

- (3) na-nun ku salam-ul cwuki-ci-anh-ass-ta.
 I-TOP the person-ACC kill-NML-NEG-PAST-DECL
 ‘I did not kill that person.’

Strikingly identical behavior is observed in the Japanese marker *wa* as shown in (4), (5), and (6), which are Japanese generic, topic-comment, and predicate denial sentences respectively:

- (4) kuzira-wa in-o funda uta-o utau.
 whales-TOP rhyme-ACC tread-PRF song-ACC sing-IMP
 ‘Whales sing songs that rhyme.’ (Matsushita 1928: 713)
- (5) kono hon-wa minna-ga yondeiru.
 this book-TOP everyone-NOM reading
 ‘This book is such that everyone is reading (it).’
- (6) kono kyookasho-wa atarashiku nai
 this textbook-TOP new-NEG
 ‘This textbook is not new.’

The question naturally arises: What makes these postpositional markers *wa/nun* appear in all of these sentences? Is there something that those sentence structures have in

common? Or is there something special in the nature of the marker that can account for all the functions that the markers seem to perform in these sentences?

The examples of contrastive sentences in Korean and Japanese are each given in (7K) and (7J):

- (7) K. nac-mal-un say-ka tut-ko, pam-mal-un
 day-words-TOP bird-NOM listen-and night-words-TOP
 cwi-ka tut-nun-ta.
 mouse-NOM listen-PRES-DECL

'Birds overhear you in the day and mice overhear you at night.'

- J. John-wa nihongo-ga dekimasu ga Mary-wa deki-masen.
 John-TOP Japanese-NOM can but Mary-TOP can not

'John can speak Japanese, but Mary can't.'

In (7K), the particle *nun* is used to set off *nac mal* 'daytime words' in contrast with *pam mal* 'nighttime words' and in (7J), *John* and *Mary* are contrasted. Examples of the logophoric sentences in which the particle marks the NP referring to the person whose psychological state or inner point of view is being represented can be easily found in novels as in (8):

- (8) ku-nun choincong-i kocang-i nan-kes-i ani-l-kka ha-nun uysim-to
 he-TOP door bell-NOM broke down-NML-NOM NEG-Q REL suspicion-also
 tul-ess-ta.
 permeate-PAST-DECL

'He suspected that the door bell might have broken.'

(from *Thain uy pang* 'Other person's room'
 by Choi Inho)

Sentence (8) describes the protagonist's psychological state of suspicion that the door bell might have broken. Thus, *ku* 'he' has to be marked by *nun*, not by the Nominative marker (# *ku-ka choincong-i kocang-i nan-kes-i ani-l-kka ha-nun wysim-to tul-ess-ta*).²

Previous studies attempted to characterize these markers according to the discourse functions associated with the *nun/wa*- marked NPs in the above sentences. Thus, these markers have been called "thematic," "contrastive," "generic," or "staging" markers. It is clear that *nun/wa*- marked NPs are generic, thematic, and contrastive, for example, in (4), (5), and (7) respectively. But it is much less clear whether the notions of genericity, thematicity, and contrastiveness are inherent in the marker *wa* itself. I want to argue that these discourse-functional/semantic notions should be separated from the nature of the marker. The separation of these notions from the marker will allow for a unifying account which will explain with explanatory adequacy all the functions of the markers which are otherwise puzzling on the surface.

It will be proposed that *nun* in Korean and *wa* in Japanese have the lexical structure of a relational noun: that is, while the Nominative marker in these languages has one argument, the postpositional marker has two arguments, *y x*, which form the complex of pragmatic information, presupposition. The overall framework assumed in this thesis is a standard view of argument structure (cf. Williams 1981, di Sciullo and Williams 1987, Belletti and Rizzi 1988, Grimshaw 1990). The argument structure hypothesis for the postpositional marker will be further supported by the elucidation of the inherent relation between anaphoricity and logophoricity on the one hand, and the relation between anaphoricity and contrastiveness on the other, and the interaction of the marker with negative scalar sentences.

As the above discussion suggests, the overall theme of this thesis is the nature of the structures of topic-comment sentences, generic sentences, predicate denial sentences, contrastive sentences, and logophoric sentences. The important tools and assumptions in

² The Japanese *wa* in logophoric function will be discussed in Chapter 3 in detail.

explicating the underlying structures of the above sentences are the notion of TRIPARTITE STRUCTURES (cf. Heim 1982), the cognitive distinction between CATEGORICAL JUDGMENT and THETIC JUDGMENT (cf. Brentano 1973, Kuroda 1972, 1992), Aristotle's dichotomy of TERM vs. PREDICATE DENIAL negations, and the theory of metalinguistic negation which is based on the distinction between the ASSERTIBILITY of a statement vs. the TRUTH of a proposition (cf. Horn 1989).

The organization of the thesis is as follows. Chapter 2 focuses on the previous two major syntactic approaches on the marker *nun* and *wa*: Whitman (1989)'s Modal Licensing Hypothesis and Brockett (1991)'s Generic Raising Hypothesis. Whitman claims that topic phrases in Korean and Japanese are limited to just those embedded clauses where modals are possible and hypothesizes that the category Modal in COMP licenses the topic being marked with *nun*. The validity of Whitman's hypothesis will be thoroughly checked with the close examination of the Factive complementizer *-kes*, the Complementizer *-cwul*, and the COMP status of modals in Korean.

In the quantificational treatment of English generic sentences, the tripartite structures are assumed to exist in an abstract interpretative component called Logical Form. Extending this analysis, Brockett claims that all *wa*-marked constituents in Japanese are raised to outside the domain of nuclear scope through GRC (Generically Related Constituent) raising movement, which is analogous to GB quantifier raising. Brockett's hypothesis is based on the Weak Crossover effects and the assumption that all thematic *wa*-marked NPs are associated with a unique syntactic slot. This assumption and the claim about WCO effects will be shown to be untenable by the examination of the different behaviors of different types of topics with regard to scrambling, the Nominative marker, and the exhaustive interpretation. Finally, I will briefly review the semantico-functional approaches: Kuroda (1972, 1992)'s categorical vs. thetic judgment distinction, Watanabe (1990)'s deictic center perspective, and Miyagawa (1987)'s set anaphoric account.

Chapter 3 is devoted to the examination of the four types of sentence structures in which these markers occur: that is, generic sentences, topic-comment sentences, contrastive sentences, and logophoric sentences. In exploring the logical structure of these sentence structures, it will be proposed that the semantics of topic-comment sentences and generic sentences can be best represented by a tripartite quantificational structure, because the first constituent of these structures, which is marked by *wa* in Japanese and by *nun* in Korean, is presuppositional and the domain of the restrictor of quantificational structure is presuppositional in nature.

In explicating the nature of generic sentences, we will discuss the INTENSIONALITY of the related constituent, which is crucial in interpretation of generic sentences. Also considered is the nature of the correlation between the restrictor and the related constituent on the one hand, and the postpositional marker *wa/nun* and the restrictor on the other.

In examining topic comment sentences, various types of topics are investigated: topic in topic-focus, continuous topic, open proposition, and themes (Halliday's theme and the functional sentence perspective's theme). In particular, how these types of topics differ from the thematic NP marked with *nun/wa*, which I will call Link (cf. Vallduví 1992), is examined in terms of Communicative Dynamism (CD), sentence-initial position, presupposition, givenness, and the notion of "aboutness."

Why do the markers occur in contrastive sentences? Is it because the contrastiveness has something in common with genericity or thematicity? These questions are explored through the examinations of the outbound anaphora, Long Distance anaphors in English, and the topic phrases in embedded clauses in Korean and Japanese. In particular, it will be shown that the discourse entity acquires assumed familiarity when the entity is in contrast through a poset relation to some other entity in the discourse. Based on the correlation between familiarity and contrast, a modified version of Horn (1986)'s givenness tree will be presented, which shows the hierarchical interrelations among various types of givenness. Finally, the logophoric function of the marker *wa/nun*, that is,

reporting the psychological state or internal point of view of the protagonist in the narrative, will be explained in terms of the argument structure of the marker.

Chapter 4 investigates the interaction of the marker *nun/wa* with negation. In particular, the functions of *nun* in the scope interaction of the negator *an(i)* with declaratives, quantifiers, and scalar predicates are examined. In exploring the question of which factors contribute to the interpretative difference between *nun*-marked negation and non-*nun*-marked negation in declaratives, Aristotle's four oppositions (correlation, contrariety, privation, and contradiction), and two types of negation (predicate denial vs. predicate term negation), and Brentano-Marty's cognitive distinction between categorical judgment andthetic judgment will be explicated.

The asymmetry between universal negation and particular negation (e.g., *some pleasure is not good*) will be attributed to the existence of lexicalized E-vertex quantifier such as *amuto* 'nobody' and nonexistence of lexicalized O-vertex negative quantifier or determiner (cf. Horn 1989). With regard to the scope ambiguity issue of the LFN (Long Form Negation) and the SFN (Short Form Negation), three contexts where the SFN and the LFN show an asymmetry with regard to scope will be posited on the basis of the result of a survey conducted on 22 native speakers. The distribution of two kinds of *but*s observed in English and other Romance languages suggests that there is an asymmetry between descriptive and metalinguistic negation in concessive structures universally. That is, metalinguistic negation cannot occur in concessive structures (cf. Horn 1989). This constraint will be further explicated and its universality will be strengthened by the examination of the interaction of the marker *nun* with scalar negation.

There are two claims regarding metalinguistic negation and Korean in the literature: that *nun* is a device for metalinguistic negation and that the clefted construction *X-i-n kes-i ani-ko Y-i-ta* in Korean like *X-zya nakute Y-da* in Japanese (paraphrasable as 'It is not X but Y') are prototypical devices for metalinguistic negation in these languages. These claims will be shown to be untenable and the conflation of metalinguistic negation and

contrastive negation will be clarified. Also examined is the function of *nun* in negative preemphasis. Finally, the question of how the *nun*-preemphasis is different from case marker preemphasis (i.e., with *i/ka* and *ul/lul*) will be addressed in this chapter. Chapter 5 will conclude with a summary of the thesis and a discussion of theoretical implications.

Chapter 2

Previous Analyses

There are two distinct traditions in the semantico-functional analysis of the postpositional marker *wa* in Japanese. One tradition, propounded by Mikami (1960, 1963) and Kuno (1972, 1973) and widely adopted thereafter in the literature (cf. Inoue 1983), holds that *wa* is used for “the theme of a sentence” or “contrast,” and that theme must be either generic or anaphoric. In Kuno (1973), the notion of “anaphoricity” was explained as “previously mentioned” and “anaphoricity” along with “genericity” comprises an abstract notion, “discourse registry.”¹ Since Kuno’s “anaphoricity” is based on the discourse registry, this tradition can be called the discourse-characterization account. On this account, the discourse status of a *wa*-marked noun phrase plays an important role. The other tradition holds that the two types of sentences, *wa*-marked sentences and non-*wa*-marked sentences, represent two cognitively different types of description (cf. Daizaburo 1928; Sansom 1928; Morishige 1965; Shibatani 1990; Kuroda 1972, 1992). According to Nagano (1972), Mio pointed out that while *genshoobun* ‘sentences of immediate description’, which are characterized by NP+*ga* + VP, represent phenomena as they are, *handanbun* ‘sentences of judgment’, which are characterized by NP+*wa* NP-*da*, express

¹ The concept “anaphoric” is interpreted slightly differently in Kuno (1978:2): a noun phrase is “anaphoric” if its referent is uniquely identifiable due to its previous mention in the discourse, or to the shared nonlinguistic knowledge. Thus, according to Kuno, *John* in (1a) is anaphoric in that both A and B speaker know the person named John and therefore can uniquely determine its referent:

- (1) a. Speaker A: Which of the two, John or Bill, won the race?
b. Speaker B: John did.

logical propositions such as A equals B.² This line of thought is incorporated by Kuroda into Brentano-Marty's distinction between the CATEGORICAL and the THETIC judgments. We can call the latter the cognitive-characterization account.

In both discourse and cognitive characterization accounts, the thematic and contrastive uses of *wa* are treated as being distinctive from each other, and the investigation is limited to the function of *wa* on the sentence level. Having realized that the two uses of *wa* are not entirely separable, a few researchers attempted to look for a unifying function for both thematic and contrastive uses especially in literary narrative. Several notions were proposed for the unifying function for both uses of *wa*: "frame: setting the scope for the predication" (Iwasaki 1987), "cohesive function" (Clancy & Downing 1987), "deictic center of narrative" (Watanabe 1990), "staging" (Maynard 1980, 1987), and "set anaphoric" (Miyagawa 1987).

Apart from the semantico-functional approach, various attempts have been made to identify topic positions in Japanese and Korean syntactically in the last decade, particularly in the framework of Government and Binding theory, utilizing a non-lexical category, the complementizer (cf. Chomsky 1981, 1986). Main issues on this line of research are basically three: Where do the topic phrases in these languages occur in the X-bar clause structure?³ What licenses them? Are they base-generated or are they moved? Whitman

² Regarding the Korean counterpart *nun*, Im (1972) distinguishes *nun*-marked sentences from non-*nun*-marked sentences as *ceng.enmun* 'characterizing sentences' vs. *pi-ceng.enmun* 'non-characterizing sentences'.

³ The phrase structure in the Government-Binding that the above studies adopted assumes two levels: the first level, X' consists of a head (X -zero, represented as X^0 or simply X) plus X' 's subcategorized COMPLEMENTS. X may be instantiated by a lexical item from a major word class, e.g., N, V, or A, or by a so-called functional element, e.g., INFLECTION (abbreviated INFL or I) or COMPLEMENTIZER (COMP or C). The second, higher, level X'' consists of the X' just defined plus a phrase that is not subcategorized but is referred to as the SPECIFIER (SPEC) of X' .

(1989) hypothesizes that topic phrases in Japanese and Korean occupy the SPEC position of the projection headed by a modal element. Brockett (1991) claims that the GRC (Generically Related Constituent)s including all *wa*-marked constituents undergo raising, analogously to quantifier raising in GB (cf. May 1985), not only at LF but also on the surface structure in Japanese and that the landing site for this movement is Spec of CP.

In this chapter, I focus on the two major syntactic analyses: Whitman (1989) and Brockett (1991). Various types of topic phrases are identified on the basis of their interactions with scrambling, the Nominative marker, and exhaustive interpretation. The examination reveals that the sentence-initial topic phrase marked with *nun/wa* including GRC cannot be associated with a unique syntactic position in these languages and therefore cannot be licensed by any syntactic category such as Modal or Complementizer. The semantico-functional analyses will be addressed only briefly because they will be discussed in detail in Chapter 3, which is the logico-semantic analysis of the marker, *wa/nun*.⁴

2.1 Whitman (1989): Co-occurrence Relation between Modals and Topic Phrases

Whitman (1989) claims that topic phrases in Korean and Japanese are limited to just those embedded clauses where modals are also possible, and he argues that this fact can be explained by the hypothesis that topic phrases occupy the SPEC position of the projection headed by a modal element: that is, it is the modal element which licenses the topic being marked with *nun*. Observing that in these languages, modals are not tensed, and appear outside the position of Tense (and aspect) morphology, he also claims that the projection headed by a modal element is IP. This is illustrated in the following Korean examples in (1a), (1b), and (1c) and Japanese examples in (1d) and (1e):

⁴ Some other functions or meanings that have been proposed for *nun* so far are “backgrounding” or “de-emphasis” (Martin 1992), “only concerned” (Yang 1973).

- (1) a. Pap-i ta toy-ess-kwun (Korean)
Rice-NOM all become-PAST-APP
'Rice is all ready.'
- b. [e] pelsse ttena-ess-keyss-ci (Korean)
pro already leave-PAST-FUT-SUSP
'(He/she/they) has probably already left.'
- c. [e] pelsse hay-ess-ta (Korean)
pro already do-PAST-DECL
'(I) already did.'
- d. sono hon-o kaw-ta-∅ (Japanese)
pro that book-ACC buy-PRF-DECL
'(I) bought that book.'
- e. [e] sono hon-o kaw-ta-roo (Japanese)
pro that book-ACC buy-PRF-PRESMP
'(He/she/they) probably bought that book.'

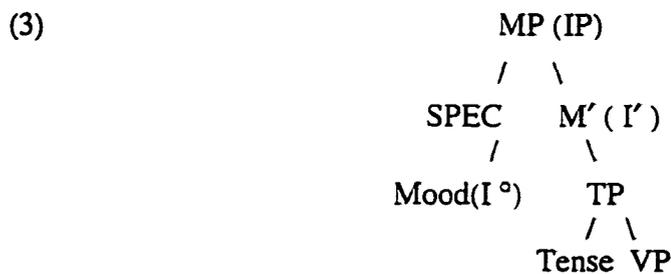
The above data indicates that, unlike Germanic and Romance languages, a root clause in Korean and Japanese is not headed by Tense at S-structure. More importantly, modal suffixes in these languages occur in contexts where a complementizer also occurs, the complementizer, *-ko* 'that' in Korean and *-to* 'that' in Japanese:

(Whitman 1989: 344)

- (2) a. Chelswu-nun [Swuni-ka ka-ss-ta-ko]_{CP} hay-ss-ta. (Korean)
Chelswu-TOP Swuni-NOM go-PAST-DECL-COMP say-PAST-DECL
'Chelswu said that Swuni went.'
- b. Chelswu-nun [Swuni-ka ka-ss-nun-nya-ko]_{CP} mul-ess-ta. (Korean)
Chelswu-TOP Swuni-NOM go-PAST-Q-COMP ask-PAST-DECL
'Chelswu asked if Swuni went.'

- c. John-wa [Mary-ga it-ta daroo-to]_{CP} omot-ta.
 John-TOP Mary-NOM go-PRF-SUSP-COMP think-PRF
 ‘John thought that Mary went.’
- d. John-wa [Mary-ga it-ta-ka-to]_{CP} omot-ta.
 John-TOP Mary-NOM go-PRF-Q-COMP think-PRF
 ‘John thought that Mary might have gone.’

Thus, Whitman argues that if we assign the category Modal or Mood in Korean and Japanese a status parallel to the status of the category Tense in Germanic and Romance, we can account for the complementary distribution of modal suffixes with question particles⁵ and the fact that both modal suffixes and question particles appear under overt complementizers in certain contexts, while still satisfying the requirement that question particles appear in COMP in interrogative clauses. The resulting analysis of IP structure for Korean and Japanese proposed by Whitman is given in (3):



Thus, the status of the category Modal or Mood in Korean and Japanese is parallel to the status of the category Tense in Germanic and Romance languages, where root clauses must

⁵ Question particles *-ni* and *-na* are in complementary distribution with modals *-kwun*, *-ci*, and *-ta* in Korean:

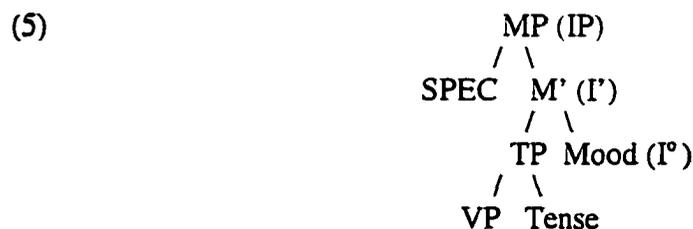
Pelsse mek-ess *-kwun/*-ci/*-ta-ni?
 already eat-PAST -APP/SUSP/DECL-Q

be headed by Tense.⁶ That is, Mood is the highest category in IP in Korean and Japanese, just as Tense is the highest category in IP in Germanic and Romance languages.

However, the morphology of verbs is generally taken to reveal the existence and position of functional categories (cf. Baker 1988, Belletti 1990). In Japanese and Korean, the verb follows the object, and Tense and Mood markers are suffixed to the verbal stem in that order. Therefore, the order of elements in the clause structure that is assumed in this dissertation follows the principles of Korean and Japanese word order stipulated in (4):

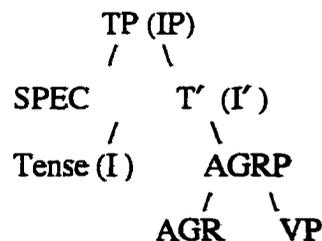
- (4) a. The head X° follows its complements; e.g., V follows its object, INFL and COMP follow their sisters.
 b. The specifier of a functional/lexical category X' precedes X' ; e.g. specifiers of I' and C' precede I' and C' respectively and the subject precedes V' .

The diagram in (5) represents the endocentric IP structure of Japanese and Korean.



Note that I am assuming a version of VP-internal hypothesis, the hypothesis that the subject originates universally in [Spec, V] in D-Structure (cf. Fukui & Speas 1985,

⁶ The basic clause structure of IP posited for Germanic and Romance languages by Pollock (1989) is as follows:



Kuroda 1988, Sportiche 1988, Koopman & Sportiche 1991). I also assume that scrambled constituents are IP-adjoined (cf. Saito 1985, Lee 1993). In the following section, Whitman's arguments for the licensing relationship between modals and topic phrases will be examined.

2.1.1 The Quotative Complementizers *-Ko* in Korean and *-To* in Japanese

It is well known that in most embedded clauses, topic marking in Japanese and Korean is generally disallowed on a non-contrastive reading, as illustrated in the following:

(Lee & Im 1983, quoted in Whitman (1989: 346))

- (6) ab. [Kaul -i / *-un o-nun soli-ka]NP tul-li-n-ta.
 Fall -NOM/TOP come-PRES sound-NOM hear-PASS-PRES-DECL
 'The sound of autumn coming can be heard.'
- (7) ab. [Ney cwucang-i / *-un olh-ass-um-ul]NP wuli-nun nacwungey-ya
 your claim-NOM/TOP right-PAST-COMP-ACC we-TOP later-only
 kkaytal-ass-ta.
 realize -PAST-DECL
 'Only in the end did we realize the rightness of your claim.'
- (8) ab. Kore -wa [John ga / *wa yonda] hon desu.
 this-TOP John- NOM/TOP read book is
 'This is the book that John read.'

However, in Japanese *-to* clauses, non-contrastive topic marking is allowed, as shown by the example in (9):

- (9) Watakushi-wa [John-wa Nihon-e ita] to omoi-masu.
 I-TOP [John-TOP Japan-to went] COMP think
 'I think that John went to Japan.'

Whitman notes that similar facts hold for the Korean quotative complementizer, *ko* 'that'⁷ as shown by (10):

- (10) Chelswu-nun, [sayngsen-un taykwu-ka coh-ta-ko] hay-ss-ta.
 Chelswu-TOP fish-TOP cod-NOM good-DECL-COMP say-PAST-DECL
 'Chelswu said that as for fish, cod is the best.'
- (Whitman 1989:346)

On the basis of these observations, Whitman argues that only the complementizers which co-occur with post-tense modals permit embedded non-contrastive topics. He further claims that this fact can be explained if a licensing relationship between modals and topics is posited in Japanese and Korean. A close examination of the data, however, reveals that Whitman's hypothesis is not tenable.

2.1.2 The Factive Complementizer *-kes* in Korean

Quotative complements are well known to be root-like contexts. Therefore, Whitman's argument hinges on his interpretation of the factive complementizer *-kes* '(fact) that' and the complementizer *-cwul* 'that'. The complement of *-kes* may be headed by an attributive form of Tense as in (11a), or by Indicative *-ta* + (Present) Attributive *-nun* as

⁷ Bhatt & Yoon (1991) point out that the function of the complementizer *ko* in Korean is quite different from lexical complementizers in English in that, while in English lexical complementizers function both as Mood (or clause-type indicator) and Subordinators, the function of *ko* is simply to indicate verbal subordination.

shown in (11b).⁸ When the latter option is chosen, a modal suffix (the Indicative *-ta*) is embedded under the complementizer. Whitman argues that only when the latter option is chosen is an embedded topic possible in a *-kes* complement. The following contrast between (11a) and (11b) is presented as evidence:

- (11) a.* Chelswu-nun, [sayngsen-un taykwu-ka coh-un-kes-ul]CP palkyenhay-ss-ta.
Chelswu-TOP fish-TOP cod-NOM good-PRES-kes-ACC discovered
- b. Chelswu-nun [sayngsen-un taykwu-ka coh-ta-nun-kes-ul]CP palkyenhayssta.
Chelswu-TOP fish-TOP cod-NOM good-DECL-ATT-kes-ACC discovered
- 'Chelswu discovered that as for fish, cod is the best.'

However, what is going on here is not actually the correlation between the embedded topic and the modal, Indicative *-ta*. In the following, I will demonstrate that the presence of the modal suffix *-ta* is determined by the semantics of the matrix verb, and then that this fact is sufficient to explain the contrast between (11a) and (11b) which Whitman noted.

The following contrast between the (a) versions and (b) versions in (12) and (13) shows that not just the topic marker, but even the nominative marker is disallowed in a *-kes* complement when the modal suffix *-ta* is absent in certain contexts:

- (12) a. *? Chelswu-nun [kolay-ka phoyutongmul-i-n-kes-ul]cp al-ass-ta⁹
Chelswu-TOP [whales-NOM mammals-be-PRES-kes-ACC discovered

⁸ Whitman (1989) states that it is undesirable to analyze *-nun* in *-ta nun (kes)* as the true Attributive Present ending ("processive modifier" in Martin (1992)'s terminology), because this ending does not alternate with the Past and Future attributive endings. He suggests that it is preferable to analyze this suffix as a fixed attributive form.

⁹ (12a) sounds quite acceptable when the matrix verb is replaced by *mol-lass-ta* 'didn't know' and becomes fully acceptable when the accusative marker after *-kes* is replaced by *-to* 'also/even'. This might be due to the fact that the sentence with *mol-lass-ta* gives a sense of sudden realization as in 'just found out' in English. However, even for those speakers who find (12a) with *mol-lass-ta* quite acceptable, the (12b) version is still preferable.

In contrast to (12a) and (13a), the nominative marker *ka* occurs without the modal *-ta* in (14a)¹⁰. The asymmetry in (12)-(14) indicates that there is no co-occurrence relationship between nominative marking and the Indicative modal *-ta*. The data in (1) through (14) indicate that what is relevant here is the nature of the relationship between the matrix verb and the proposition of the complement. A modal suffix *-ta* must be present in a *kes* complement when the proposition of the complement is abstract (i.e., knowledge). In contrast, when the content of the complement is concrete (i.e., that which has already happened, or that which has been directly perceived through the action of the matrix verb) the modal suffix *-ta* is absent as in (14a). The following data also support the above generalization:

- (15) a. kemchal-chuk-un [O.J. Simpson-i Nicole Simpson-ul
prosecutors-part-TOP O.J.Simpson-NOM Nicole Simpson -ACC

cwuki-~~ess-ta-nun~~-kes- ul] ettehkey cungmyengha -l- kka?
kill-PAST-DECL-ATT-kes-ACC how prove -will- Q
- b. * kemchal-chuk-un [O.J.Simpson-i Nicole Simpson-ul
prosecutors-part-TOP O.J.Simpson- NOM Nicole Simpson-ACC

cwuki-n-kes-ul] ettehkey cungmyengha-l-kka
kill-ATT-kes-ACC how prove -will-Q
- 'How will the prosecutors prove that O.J. Simpson killed Nicole Simpson?'

The proposition that O.J Simpson killed Nicole Simpson is presumed. It is not something that could be directly discovered like a stain of blood on a car. It is an abstract proposition that is conjectured, and therefore the modal *-ta* must be present, hence the ungrammaticality of (15b).

¹⁰ If the marker *nun* occurs in *sayngsen-un* in (14a), it is interpreted contrastively.

In order to make a more systematic case for the above argument — specifically, that the occurrence or absence of the modal *-ta* in a *-kes* complement crucially depends on the relationship between the matrix verb and the proposition of the complement — it will be necessary to consider whether or not the grammaticality judgment for sentences without a modal suffix in the complement clause like (12a) improves when the pragmatic context changes. For example, suppose that whales were regarded as fish up to the point in time when Chelswu, a marine biologist, examined a whale and discovered for the first time that whales are mammals. In this context, the sentence in (12a), repeated again below as (16), becomes fully acceptable.

- (16) a. Chelswu-nun [kolay-ka phoyutongmul-i-n-kes-ul]cp al-ass-ta.
 Chelswu-TOP [whales-NOM mammals-be-PRES-kes-ACC] knew
 ‘Chelswu discovered that whales are mammals.’

Similarly, let’s imagine the following scenario: Suppose that a woman named Jessica entered a male-only military academy disguised as a man under the name of Jerome. One day a cadet, John, saw Jerome undressed and discovered that Jerome was a woman. In this situation, both the (a) version and (b) version, which has *-la*, a variant form of a modal *-ta* after copula, are acceptable:

- (17) a. John-un [Jerome-i yeca-i-n-kes-ul] cp al-ass-ta.
 John-TOP Jerome-NOM woman-be-PRES-kes-ACC know-PAST-DECL
- b. John-un [Jerome-i yeca-i-la-nun-kes-ul] cp al-ass-ta.
 John-TOP Jerome-NOM woman-be-DECL-ATT-kes-ACC know-PAST-DECL
- ‘John discovered that Jerome was a woman.’

This raises doubt about Whitman's argument that the ungrammaticality of (11a) is due to the absence of a modal *-ta* and presence of the topic marker. What is relevant in (11a) and (11b) is the nature of the complement, just as in the cases of (12) - (17). The proposition that "as for fish, cod is the best" is not something that one can directly and instantly perceive like a blood stain on a car (as in the case of (14a)) or the sex of a person (as in the case of (17a)). Rather it is knowledge that one can only gradually come to grasp through much experience of eating fish. Therefore, in this case the modal suffix *-ta* must be present in a *-kes* complement, which accounts for the asymmetry between (11a) and (11b).¹¹

At this point, one might wonder if the structure *-ta nun kes* in (11b), (13b), or (17b) etc., might be the abbreviation of *-ta + ko ha + nun + kes* with the deletion of the Quotative Complement *-ko* plus the verb *ha-* 'say'. There are two arguments against this analysis: First, in cases like '... *-ta nun mal* 'word'/ *sosik* 'message'/ *phyenci* 'letter' etc., *-ta nun kes* is clearly the result of the optional deletion of *-ko ha* from *ta + ko ha nun mal /sosik/ phyenci* etc. Unlike these cases, however, in cases like (11b), (13b), or (17b) the "unabbreviated form" is not acceptable. Observe the following contrast between (18) and (13b), repeated here as (19b):

- (18) a. *kkok tolao-kess-ta-nun mal-ul namki-ko ku nun salaci-ess-ta.*
surely return-will-DECL-PRES word-ACC leave-and he-TOP disappeared
- b. *kkok tolao-kess-ta-ko ha-nun mal-ul namki-ko ku-nun salaci-ess-ta.*
'Leaving word that he would definitely come back, he disappeared.'

¹¹ Thus, even if *sayngsen-un* is substituted by *sayngsen-i* in (11a), the acceptability does not improve. Furthermore, the presumed meaning of the embedded clause, "it is fish among which cod is the best" is semantically anomalous, since there are no other kinds in the world among which cod can be the best.

- (19) a. Chelswu-nun [Swuni-ka ttokttokha-ta-nun-kes-ul] palkyenhay-ss-ta
Swuni-NOM smart-DECL-ATT-COMP-ACC discovered
- b. * Chelswu-nun [Swuni-ka ttokttokha-ta-ko ha-nun-kes-ul] palkyenhayssta.
'Chelswu discovered that Suni was smart.'

Second, unlike cases like '*...ta nun mal / sosik / phyenci* etc.', *-nun* in *-ta nun kes* does not alternate with the Past, Future, or Retrospective attributive endings as shown in (21) below. Therefore, as Whitman suggests, it seems preferable to analyze this suffix as a fixed attributive form. For example, observe the following contrast between (20) and (21):

- (20) tolao-kess-ta-(ko ha)-**nun / n / ten** ku mal-ul
return-will-DECL-(C-say)-PRES/-PAST/-RET the-word-ACC
- chelsekkathi mit-ko
without doubt believe-and
- Swuni-nun sip nyen-ul mayil-kathi ku-lul kitaye-ss-ta.
Swuni-TOP ten-year-ACC everyday him-ACC wait-PAST-DECL
- 'Believing his word that he would come back, Swuni waited for him every day for ten years.'
- (21) Chelswu-nun [Swuni-ka ttokttokha-ta- **nun / *n / *ten** -kes -ul] palkyenhayssta.
Chelswu-TOP Swuni-NOM smart-DECL -PRES/ PAST/RET-kes-ACC discovered

These examples show that there is a clear difference between cases like *-ta ko ha nun mal/sosik* etc. and cases like *-ta nun kes*. Therefore, the structure *-ta nun kes* cannot be analyzed as the result of optional deletion of *-ko ha* from *-ta ko ha nun kes*.

So far, we have established that the asymmetry between (11a) and (11b) attributed by Whitman to the impossibility of *nun* occurring without the modal is in fact due to the relationship between the matrix verb and the proposition of the complement. Furthermore, Whitman's claim (i.e., that an embedded topic is possible in a *-kes* complement only when the complement is headed by a modal, the Indicative *-ta* and the

Present Attributive *-nun*) is falsified by the data in (22) –(23), which show that embedded topics can occur in a *-kes* complement without modals. Thus, there is no licensing relationship between modals and embedded topics.

- (22) cikum-kkaci [sayngsen-un kotunge-ka ceyil yengyangqka-ka
now until fish-TOP mackerel-NOM most nutrition-NOM
manh-un-kes ulo] cp allyecye-o-ass-una, choykun yengyangsa-tul-uy
many-PRES-C as known -come-PAST-but, recent nutritionist-PL-of
yenkwu-ey uyhamyen, [yen.e-ka ceyil yengyangqka-ka
research-by according to salmon-NOM best nutrition-NOM
manh-un-kes ulo] palphytoy-ess-ta.
many-PRES-C as] reported-PAST-DECL

'Until now, mackerel was known as the most nutritious fish. According to the recent research of nutritionists, however, it was reported that salmon is the most nutritious fish.'

- (23) a. [ai-tul kyoyuk-un kacengkyosa-lul twu-nun-kes pota, hakkyo-ey
children education-TOP tutor-ACC have-ATT-kes than school-to
ponay-nun-kes -i te coh-ul-kes-ulo] sayngkakttoy-pni-ta.
send-ATT-kes-NOM more good-FUT-kes-as] is thought-HON-DECL

'I think that as for children's education, sending them to school is better than having tutors.'

At this point, one might raise a question as to whether or not the topic NP *ai-tul kyoyuk-un* 'as for children's education' in (23a) really occurs inside the complement clause. One piece of positive evidence for the occurrence of the topic NP inside the complement clause is the fact that in (23b) the topic NP can occur after *kacengkyosa-lul twu-nun-kes pota* 'than to have tutors':¹²

¹² Unlike (23), the sentence (22) cannot be tested as to whether or not the topic phrase *sayngsen-un* occurs inside the complement clause, because *sayngsen-un* is the type of topic phrase which is not an argument of the predicate. Topic phrases of this type

- (23) b. [kacengkyosa-lul twu-nun-kes pota, ai-tul kyoyuk-un hakkyo-ey
 tutors -ACC have-PRES-C than child-PL education-TOP school-to
 ponay-nun-kes-i te coh-ul-kes-ulo] sayngkak toy-pni-ta.
 send-PRES-C-NOM more good-FUT-C-as be thought-HON-DECL

2.1.3 The Complementizer *-Cwul*

Whitman's second argument involves the complementizer *-cwul* 'that', which has nominal properties and, like *-kes*, is preceded by attributive forms of Tense. However, unlike *-kes*, Whitman notes that *-cwul* allows its complement to contain a topic. The complementizer *-cwul* also disallows embedding of the non-attributive modals, the indicative *-ta*, the suspensive *-ci*, etc. Contrast (11a) repeated as (24a) below, and (24b):

- (24) a. * Chelswu-nun, [sayngsen-un taykwu-ka coh-un-kes-ul]CP
 Chelswu-TOP fish -TOP cod-NOM good-PRES-C-ACC
 palkyenhay-ss-ta.
 discover-PAST-DECL
 'Chelswu discovered that as for fish, cod is the best.'
- b. Chelswu-nun, [sayngsen-un taykwu-ka coh-un-cwul (lo)] al-ass-ta.
 Chelswu-TOP fish-TOP cod-NOM good-PRES-C (as) know-PAST-DECL
 'Chelswu thought that as for fish, cod is the best.'

With regard to this fact, which appears to disconfirm Whitman's hypothesis that embedded topics are possible exactly where an embedded modal head is possible, Whitman argues

invariably disallow scrambling of other constituents over them, either in main clauses or in embedded clauses. In sum, non-argument topic phrases always occur in sentence-initial position:

- * Tayku-ka, sayngsen-un coh-ta.
 cod-NOM as for fish best-DECL

that the complementizer *-cwul* allows its complement to contain a non-attributive form of Tense followed by the Future modifier ending *-ul / -l*, and furthermore, that this attributive Future suffix *-ul / -l* is a modal, an option that is not available for *-kes* :

- (25) a. Chelswu-nun, [ku phyenci-ka o-ass-ul-cwul (lo)] cp al -ass -ta.
Chelswu-TOP the letter-NOM come-PAST-FUT-C-(as) know-PAST-DECL
'Chelswu thought that the letter would have come.'
- (25) b. ?* Chelswu-nun, [ku phyenci-ka o-ass-ul kes-(ul)]cp al-ass-ta.
Chelswu-TOP the letter-NOM come-PAST-FUT-C know-PAST-DECL
'Chelswu knew that the letter would have come.'

Thus, he argues that if *-ul / -l* is a modal, the contrast between (25a) and (25b) explains the contrast between (24a) and (24b) on the basis of the hypothesis that topics are possible only in embedded clauses with modal heads. This attributive future suffix *-ul / -l* does indeed receive a modal rather than a temporal interpretation denoting the speaker's supposition when it follows overtly realized Tense. Therefore, it is not unreasonable to assume that this attributive Future suffix *-ul / -l* is a modal. However, it is not clear how the contrast between (25a) and (25b) explains the contrast between (24a) and (24b) because *-kes* can also select a complement headed by a modal element such as *-ta*. Furthermore, Whitman fails to observe two facts: First, when the complement of *-cwul* contains a non-attributive form of Tense followed by *-ul*, as in the case of (25a), *al-* is interpreted as 'think', and when *al-* is interpreted as 'think', the missing particle after *-cwul* is *-ulo* 'by, as'. However, when *al-* is interpreted as 'know', the missing particle after *-cwul* is Accusative *-ul*. Therefore, contrary to Whitman's assumption, (25a) and (25b) do not form a minimal pair interpretation. Second, the future suffix *-ul / -l*, which we have identified as a modal, can also occur in *-kes* complements when the complement is embedded under certain verbs like *chwucengtoy-* 'is conjectured', as indicated by (26)

where the *-kes* complement allows a non-contrastive topic and the non-attributive Tense form *-ass*, followed by a modal (the attributive future suffix *-ul*):

- (26) cengpu poko-ey uyhamyen Kwangcwu sathay-eyse cwuk-un
 government report according to Kwangju incident -in die-PAST ATT
 salam-i 450 myeng i-lako ha-na, [silcey samangca swu-nun
 people-NOM 450 people is-as say-but real casualty number-TOP
 i- pota te manh-ass-ul-kes ulo] chwucengtoy- n- ta.
 this- than more many -PAST-FUT-COMP-as conjectured-PRES-DECL

'According to the government report, 450 people died in the Kwangju incident but it was conjectured that the real number of casualties was more.'

Furthermore, (25) becomes grammatical when it is marked by *-ulo* and the matrix verb is replaced by a non-factive verb such as *sayngkakha-* 'think':

- (27) Chelswu-nun, [ku phyenci-ka o-ass-ul kes-ulo]cp sayngkakhay-ss-ta.
 Chelswu-TOP the letter-NOM come-PAST-FUT-kes-as think-PAST-DECL
 'Chelswu thought that the letter would have come.'

The grammaticality of (26) and (27) leads us to conclude that the deviance of (25b) cannot be attributed to a syntactic constraint that claims the complementizer *-kes* does not allow its complement to contain a non-attributive form of Tense followed by the future modifier ending *-ul /-l*. There is no difference between the complementizer *-kes* and *-cwul* in terms of their ability to contain modals, whether it is the Indicative *-ta* or the future modifier/modal *-ul /-l*. Consequently, Whitman's second argument involving a putative asymmetry between *-cwul* and *-kes* with respect to modals is not valid and therefore his hypothesis of a co-occurrence relationship between modal and topic phrases is not tenable.

I argue that the deviance of (25b) is the result of a semantic conflict. In (25b) the complement is embedded under *al-* 'know' and the modal interpretation of *-ul /-l* in the

complement denotes the speaker's conjecture. Thus, embedding a complement with the modal *-ul /-l* (which denotes the speaker's conjecture) under factive verbs such as *palkyenha-* 'discover' or *al-* 'know' (the meaning of which is incompatible with a speaker's conjecture) naturally results in a semantic anomaly. On the other hand, *sayngkaktoy-* 'is thought' in (23), *al-* 'think' in (25a) and *chwucengtoy-* 'is conjectured' in (26) are compatible with the modal *-ul /-l*, since these verb forms denote a speaker's conjecture, and hence the acceptability of (23), (25a), (26), and (27).

A further piece of evidence against Whitman's hypothesis emerges from the data in (28), where a non-contrastive topic occurs in the embedded clause of an *-(u)m* nominalization. Observe the contrast between (7b) and (28):¹³

- (28) [Warai salam-tul-eykey philyoha-n-kes-un kihoy-wa
Warai people-PL-to need -PRES-thing-TOP opportunity-and
tongki-lul puyeha-nun-kes- i- m -ul] kkaytal-ass-upni-ta.
motivation-ACC provide-PRES-C-COP-C-ACC realize-PAST-HON-DECL
'We realized that what is needed for the Warai people is to give them
opportunity and motivation.'

Normally, the matrix topic can occur after the object of the matrix verb as illustrated in (30a) and (30b):

- (29) a. wuli-nun ilehan salang-ul akaphey-lako pulun-ta.
we-TOP this kind of love-ACC Agape-as call-DECL
'We call this kind of love Agape.'
- b. ilehan salang-ul wuli-nun akaphey-lako pulun-ta.
this kind of love-ACC we-TOP Agape-as call-DECL

¹³ I noted this sentence from a letter sent by a missionary in a quarterly newsletter published by a seminary, *Koshin*. (The volume number is unavailable.)

Then, the ungrammaticality of (30) shows that the topic phrase, *Warai salam-tul-eykey philyoha-n-kes-un* is not in the matrix clause, but in the embedded clause:

- (30) * [kihoy-wa tongki-lul puyeha-nun-kes- i- m -ul]
 opportunity-and motivation-ACC provide-PRES-COMP-be-COMP-ACC
Warai salam-tul-eykey philyoha-n-kes-un kkaytal-ass-upni-ta.
 Warai people-PL-to need -PRES-thing-TOP realize-PAST-HON-DECL

The *-(u)m* nominalizer never allows modals including the future modifier *-ul /-l*, which we have interpreted as a modal. Given this fact, (28), in which the topic marker *nun* occurs in *-(u)m* nominalization, is another piece of evidence against Whitman's hypothesis that topic phrases are licensed by a modal.

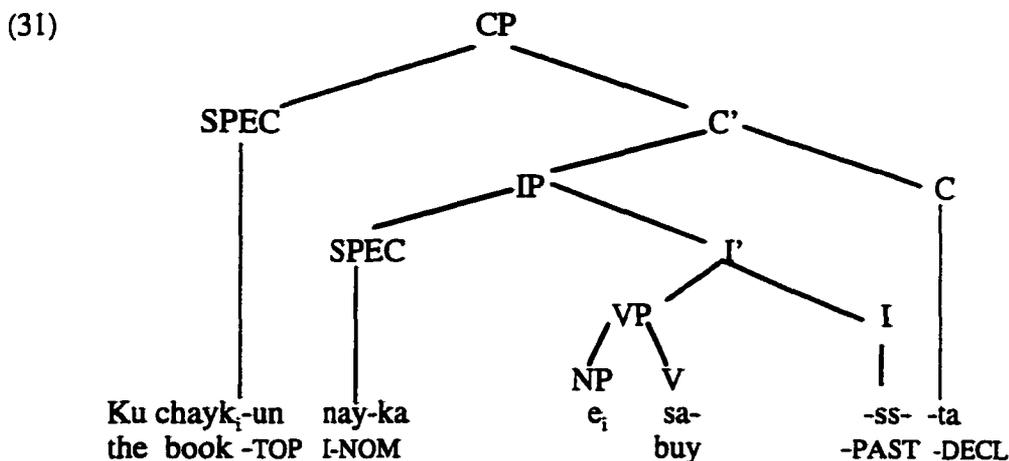
Latent in Whitman's hypothesis is the assumption that topic sentences in Japanese and Korean are instances of CP in which CP topic sentences have the topic phrase in the SPEC of CP and a derived lexical overt head in the position of COMP. This assumption, in turn, is made on the analogy of Germanic V2 languages. The manifestation of verb-second phenomena in these languages suggests that CP topic sentences must be projected from an overt lexical head at s-structure. CP topic sentences thus have the topic phrase in the SPEC/CP position, and a derived lexical (overt) head in the position of COMP. Whitman (1991) argues that CP topic sentences in Korean and Japanese in fact share the property that they are headed by an overt X^0 category at s-structure and that it is the category Modal in COMP that heads topic sentences in Japanese and Korean.

If CP topic sentences must be projected from an overt lexical head, the result that topic sentences in Korean need not be projected by a modal head leads us to question a fairly standard account of topic phrases in Japanese and Korean: namely, that sentence-initial topics in these languages are uniformly in the SPEC of CP position (Saito 1985; Hoji 1985; Brockett 1991 for Japanese; Whitman 1989, 1991; Kang 1986 for Korean). In what

follows, we will examine the claim that the topic phrases in Japanese and Korean are instances of SPEC of CP.

2.1.4 String Vacuous Movement of V to COMP

The CP topic analysis in V2 languages (cf. van Besten 1983, Travis 1984, Pollock 1989) is based on the assumption that CP topic sentences must be projected from an overt lexical head. Adopting Choe (1988)'s CP analysis of the root clauses in Korean, Whitman (1991) hypothesizes the string vacuous movement of V to COMP: V is raised and left-adjoined to Tense in I; [V + Tense] is then raised and adjoined to the post-tense suffix which occurs in COMP to license the topic, deriving the S-Structure representation in (31):



In Korean and Japanese, this movement is string-vacuous because the tensed verb must always occur in the sentence-final position. As such, unlike in V2 languages, there is no direct evidence involving a permutation in the order of the tensed verb and other items, because the order of head categories is V—INFL—COMP. Therefore, the hypothesis of string-vacuous movement of V to COMP has to depend on two types of indirect evidence: (i) the observation that there is an almost complete equivalence of function between the

post-tense modal suffixes in Japanese and Korean and the category of complementizer studied in other languages; (ii) the proof that these post-tense modal suffixes in Japanese and Korean have the Complementizer status in these languages. Since the latter is language-internal evidence, and hence more crucial, I will limit my discussion to the latter and show that the Complementizer status of post-tense modal suffixes cannot be maintained.

To argue for the COMP status of modals, Whitman claims that modals—past tense suffixes with a modal function such as Susceptive *-ci*, and Indicative *-ta*, and Apperceptive *-kwun* — are in complementary distribution with embedded clause complementizers such as Nominalizer *-(u)m*, Conditional *-(u)myen*, or Relativizer *-nun*:

(from Whitman 1991)

- (32) a. pro [ku-ka pelsse mek-ess-um]-ul cicekha-ess-ta.
 he-NOM already eat-PAST-COMP-ACC indicate-PAST-DECL
 '(Pro) indicated that he had already eaten.'
- b. pro [ku-ka pelsse mek-ess *ci/*-ta-m]-ul cicekha-ess-ta
 he-NOM already eat-PAST -COMP-ACC indicate PAST-DECL
 '(Pro) indicated that he had already eaten.'
- c. pro expl [ku-ka pelsse mek-ess-umyen] coh-keyss-ta.
 he-NOM already eat-PAST-COMP good-FUT-DECL
 'It would be good if he had already eaten.'
- d. pro expl [ku-ka pelsse mek-ess *-ci/*-ta-myen] coh-keyss ta.
 he-NOM already eat-PAST -COMP good-FUT-DECL
 'It would be good if he has already eaten.'

Notice, however, that clause-final modals like Indicative *-ta*, Propositive *-ca*, Imperative

-(u)la, Interrogative -nya do occur with the conditional complementizer -myen 'if', as shown in (33a), (33b), (33c), and (33d):

- (33) a. pro [nay-ka pelsse nonmun-ul ta ssu - ess -ta-myen] elmana coh-ul-kka.
I-NOM already thesis-ACC all write-PAST-DECL-COMP how good-FUT-Q
'How wonderful it would be if I had already finished my thesis!'
- b. pro [pro ton-ul pel -ca-myen] cheymyen kath-un-kes-un peli-eya toy.
money-ACC earn-PROP-COMP face-saving like something throw-must
'If one is to make money, he has to set aside things like dignity.'
- c. pro [nay-ka ku-lul ettehkey seltukhay-ss- nya-myen] kantanhay.
I-NOM he-ACC how persuade-PAST-Q-COMP simple.
'I'll tell you how I persuaded him. It's simple.'
- d. [ka-la-myen] pro ka-ko, [iss-ula-myen] pro iss-keyss -e -yo.
go-IMPR-COMP pro go-and stay-IMPR-COMP pro stay-will-INF-POL
'If you tell me to go, I will go and if you tell me to stay, I will stay.'

Diachronically, *-ta+myen*, *-ca+myen*, *-nya+myen*, and *-la+myen* can be analyzed as contractions of *-ta+ko+ha+myen*, *-ca+ko+ha+myen*, etc., where the Quotative *-ko* and the verb *ha-* are deleted. Synchronically, however, this analysis is not plausible: the uncontracted form cannot be used interchangeably for the contracted form (i.e. *-tamyen*, etc.) except for the case of *-lamyen*, because the meaning of the contracted forms has diverged from that of the uncontracted forms. The uncontracted form, for example, *-ta ko ha myen*, etc. can only mean 'if one says that ...', whereas the contracted form means either 'if ...' or 'if one says that ...'. Observe the following:

- (34) * a. pro_i [nay-ka nonmun-ul ta sse-ss-ta ko ha-myen] elmana coh-ul-kka.
'How wonderful it would be, if I had completed my dissertation.'

- * b. pro [ton-ul pel-ca ko ha-myen] cheymyen kath-un kes-un pelyeyatoy.
'If one is to make money, he has to give up things like dignity.'
- * c. pro [nay-ka ku-lul ettehkey seltuk hay-ess nya ko-ha-myen] kantanhay.
'I'll tell you how I persuaded him, it's simple.'
- d. [ka-la ko ha myen] pro ka ko [iss-ula ko ha myen] iss-keyss-eyo.
'If you tell me to go, I will go and if you tell me to stay, I'll stay.'

In the case of Past Tense *-ess* + Indicative *-ta* + Conditional *-myen*, the contrast is more clear: the contracted form can only be used for the hypothetical conditional for the Past, while the uncontracted form can only mean 'if one says that' as illustrated in (35) and (36):

- (35) i mutem-ul nwu-ka ithul cen-ey olmki-ess-ta-myen /
this tomb-ACC someone-NOM two days ago-in move-PAST-DECL -if
- * olmki-ess-ta-ko-ha-myen hulk saykkal-i talun ke hako com talla-
move-PAST-C-saay-DECL-if soil color-NOM others with a little different
- ya hal-kes- ani-ya.
must-COMP NEG
- 'If someone had moved this tomb two days ago, then the color of the soil should be different from that of the other soil.'
- (36) a. i kkoch-un olmki-ess-ta (ko) ha-myen cwuk-e
this flower-TOP move-PAST-DECL say if die
- 'If you move this flower, this flower dies immediately.'
- b. * i kkoch-un olmki-ess-ta-myen cwuk-e
this flower-TOP move-PAST-DECL-if die
- * 'If you had moved this flower, this flower dies.'

The contrast between the contracted form and the uncontracted form in (35) and (36) strongly indicates that the contracted form *-ta myen* and the uncontracted form *-ta (ko) ha myen* cannot be used interchangeably without changing the meaning.

One might argue that Whitman's claim for the COMP status of modals can be maintained if the paradigm *-ta+myen, -la+myen, -ca+myen, -nya+myen* is analyzed as one lexicalized form. Thus, *-tamyen* etc. is not the modal Indicative *-ta + clausal complementizer -myen*, but must be analyzed as one clausal complementizer, *-tamyen*, expressing a hypothetical conditional. Then, this account has to postulate five different lexical items for the conditional complementizer, each with complicated constraints. For this reason *-tamyen* will be analyzed not as one lexical form *-tamyen* but as Indicative *-ta + complementizer -myen*. Given this analysis and the fact that *-ta myen* is not the contraction of *-ta ko ha myen*, the COMP status of modals cannot be maintained. The above examination of Factive complementizer *-kes*, Complementizer *-cwul*, and the Comp status of modals leads us to conclude that Whitman's hypothesis that the category Modal in COMP licenses topic sentences in Japanese and Korean cannot be maintained.

2.2 Brockett (1991): The Generic Raising Hypothesis

Notionally, a generic sentence is one expressing an inherent property or a natural regularity as illustrated in the Japanese example, (37) and the Korean example, (38):

- (37) *kuzira-wa in-o funda uta-o utau.*
 whales -TOP rhyme-ACC tread-PRF song-ACC sing-IMP

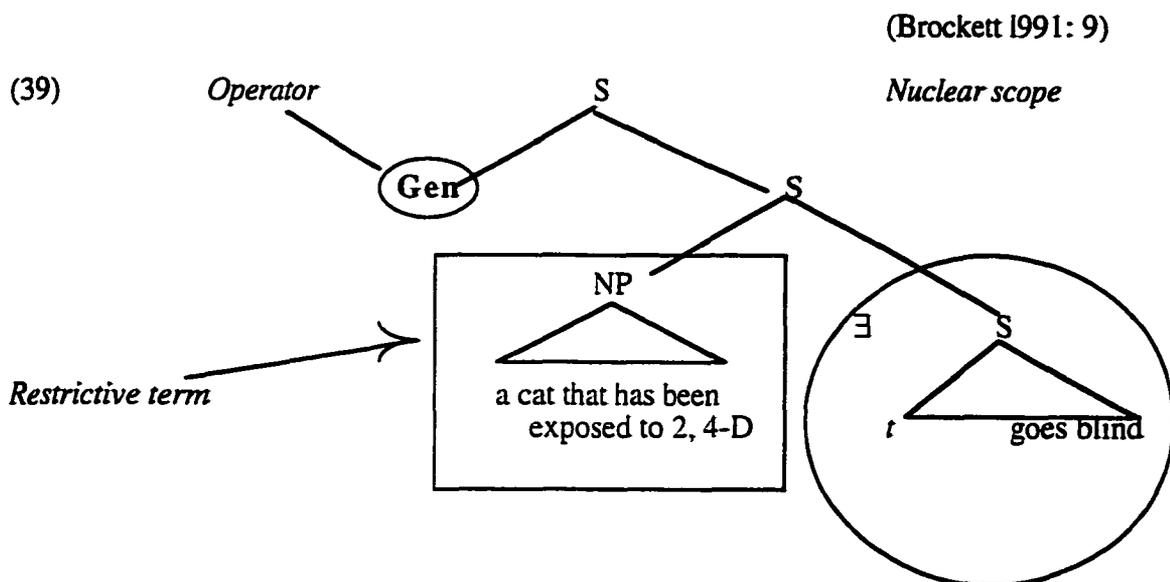
‘Whales sing songs that rhyme.’

- (38) *kaynali-nun ilun pom chel-ey phi-n-ta.*
 Forsythia-TOP early spring season-in bloom-PRES-DECL

‘Forsythia blooms in early spring.’

Epistemologically, a generic sentence is one expressing a truth (or falsehood), the true value of which cannot, in general, be ascertained solely with reference to any particular localized time. Thus, “Forsythia blooms in early spring” is true, even though there may be no forsythia blooming at a certain place in early spring.

English generic sentences containing indefinite singular or bare plural subjects have been analyzed as tripartite quantificational structures at Logical Form comprising a generic operator, a restrictive term, and a nuclear scope, as illustrated in (39) below, adapted from Heim (1982) (cf. Gerstner and Krifka 1993, Krifka 1987, Diesing 1988).

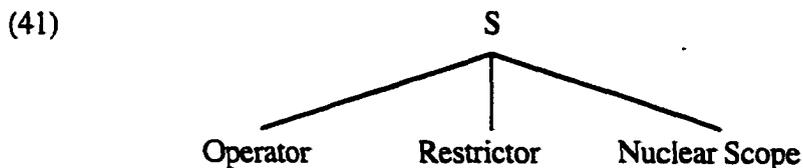


In this model, English indefinite and bare plural NPs are treated as having no inherent quantificational force, i.e., as not being existentially quantified, but as introducing new variables into the semantic representation. If there are any free variables in the nuclear scope, they are bound off by a structurally introduced free variable, as illustrated in (40):

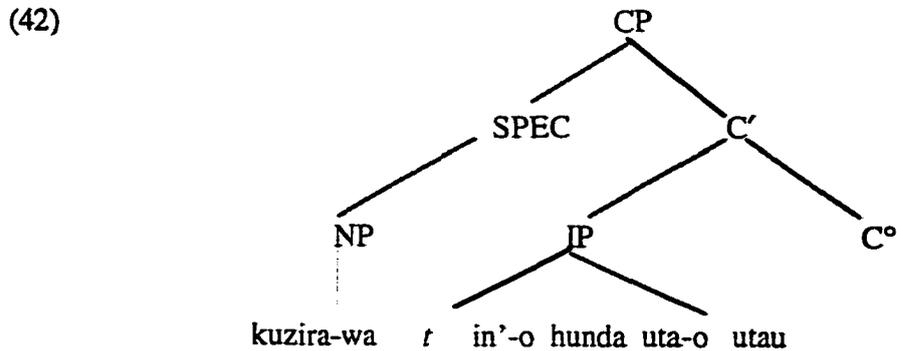
- (40) a. A man owns a llama.
- b. $(\exists x,y) [x \text{ is a man} \wedge y \text{ is a llama} \wedge x \text{ owns } y]$

Since indefinites have no quantificational force of their own, they must receive quantificational force by being bound by some other operator. In (40) there is no other quantificational element in the sentence that can function as the quantifier, the variables introduced by the indefinites are bound by an implicit existential quantifier \exists that existentially closes off the nuclear scope, preventing the occurrence of unbound variables. The generic operator, **Gen** is non-overt, but is viewed as a necessity operator which defines a relation between the Generically Related Constituent (Restrictive Term) and the Nuclear Scope (cf. Heim 1982).

Furthermore, it has been suggested that not just the subjects of generic sentences but other linguistic structures such as topic, or the antecedent of conditionals, also go into restrictive term (cf. van Benthem 1986; Partee 1991; Kratzer 1991, 1995). The generalized picture of tripartite structures is the following:



In this analysis, the tripartite structures are assumed to exist in an abstract interpretative component called Logical Form. Extending this quantificational treatment of English generic sentences, Brockett (1991) claims that these tripartite structures of generic sentences do not just exist at Logical Form but actually represent the linguistic structure of Japanese generic sentences including all thematic *wa*-marked sentences. Thus, in Brockett's analysis, Japanese generic sentences like (37) and all thematic *wa*-marked sentences have the S-Structure representation shown in (42), where the subject *wa*-marked constituent (WMC hereafter) has undergone string-vacuous movement out of IP and into the Specifier position of CP.



The principal motivation for the generic raising hypothesis is generic sentences in which there is a locative expression and a bare plural subject such as (43), first observed by Milsark (1974):

(43) Typhoons arise in this part of the Pacific.

One widely accepted view of generic sentences (e.g., Carlson 1977b) is that they predicate properties of NPs that refer to kinds of individuals. The predication-of-kinds model predicts only one interpretation for (43): that in which the invisible operator G(en) denotes a relation between the restrictive *typhoons* and the nuclear scope *arise in this part of the Pacific* as in (44), an interpretation which is relatively implausible. Meanwhile the pragmatically more likely reading in which *typhoons* is construed existentially as in (45), completely lacks a representation in the predication-of-kinds model:

(44) G (arise in this part of the Pacific) (typhoons)

(45) In this part of the Pacific, in general, typhoons arise.

A similar problem is posed by generic sentences such as (46) and (47) that contain definite objects and an indefinite subject:

(Carlson 1989)

(46) A computer computes the daily weather forecast.

(47) Robots assemble the new cars.

As with the locative sentences, the preferred interpretation of (46) and (47) is one in which the indefinite subject is construed existentially. The predicational model, however, fails to assign the pragmatically more viable construal paraphrased in (49), and assigns to (46) only the pragmatically unlikely interpretation in (48).

(48) G (computes the daily weather forecast) (computer)

(49) The daily weather forecast is generally computed by a computer.

Faced with the difficulties posed by these and other sentence types discussed in his paper, Carlson (1989) abandons the position that generic sentences predicate a VP of a subject NP. Instead, he proposes that they should be viewed as requiring two elements, a non-generic predicate — a sentence or VP — and an intensional **GENERALLY RELATED CONSTITUENT** (hereafter **GRC**) that is needed to complete the generic interpretation.

While English generic sentences like (43) and (46) are ambiguous between the two readings represented in (44) vs. (45) and (48) vs. (49) respectively, the Japanese sentences corresponding to those are unambiguous. For each interpretation assigned to the problematic ambiguous sentences, the **GRC**, as we mentioned above, is marked with the particle *wa* and it occurs in sentence-initial position. This is illustrated in (50) below, where the Nominative *ga*-marked subject has an existential construal, while the PP marked with *wa* is the **GRC**:

- (50) taiheiyoo-no kono hen-de-wa, taihuu-ga hassei su-ru.
Pacific Ocean-GEN this part-LOC-TOP typhoon-NOM occur-IMP

‘In this part of the Pacific, (in general) typhoons occur.’

When the subject is *wa*-marked, on the other hand, this becomes the GRC, in which case the sentence exhibits only the “less plausible” reading in which the subject is construed non-existentially.¹⁴

- (51) taihuu-wa, Taiheiyoo-no kono hen-de hassei-suru.
typhoon-TOP Pacific Ocean-GEN this part-LOC arise-IMP

‘Typhoons occur in this part of the Pacific.’

Brockett hypothesizes that these S-Structure representations map directly to LF structures in which the *wa*-marked constituent (WMC) is outside the domain of nuclear scope and restricts the operator **Gen**: the GRC undergoes raising, which is analagous to GB quantifier raising (cf. May 1985). He claims that GRC raising takes place at S-Structure as well as at LF in Japanese, whereas in English (and in Japanese embedded clauses) it takes place strictly at LF. Furthermore, he claims that the landing site for this movement is SPEC of CP. Generic raising movement creates a tripartite quantificational structure at LF, whose form can be generalized as in (52):

- (52) **Gen** [XP Restrictive Term]_j [.. .t_j Nuclear Scope]

¹⁴ This pattern is not limited to sentences containing quasi-presentational verbs such as *hassei suru* ‘arise’, but is observed in conjunction with a wide range of predicates involving a locative PP. Exactly same behavior can be observed with respect to *nun* in Korean, too.

Brockett's main argument for the Generic Raising hypothesis is based on Weak Crossover effects, a standard diagnostic in Government and Binding theory for LF syntactic movement of quantifiers. Examples in (53) below illustrate WCO effects for the standard contexts identified by Chomsky (1981).

- (53) (a) ?* His_i mother loves everyone_i. [Quantifier raising]
 (b) ?* His_i mother loves someone_i. [Quantifier raising]
 (c) ?* Who does his_i mother love t_i. [Wh-movement]
 (d) ?* His_i mother loves JOHN_i. [Focus movement]

The weak ungrammaticality on the interpretations indicated by the coindexed subscripts is taken by Chomsky (1977) to be an argument for the existence of Logical Form represented in (54), in which the pronoun *his* stands to the left of the variable left by movement of the quantified constituent.

- (54) (a) for every x : man x [his_x mother loves x]
 (b) for some x : man x [his_x mother loves x]
 (c) for which x : person x [his_x mother loves x]
 (d) OP Focus: John x [his_x mother loves x]

Within the framework of the tripartite model of quantification, the basic descriptive generalization is the following:

- (55) Op_x [NP Restrictive Term]_x [... [NP...pron_x...] ...t_x... Nuclear Scope]

To account for the weak ungrammaticality in (53a) - (53d), Chomsky (1977) proposes a **Leftness Condition**, a stipulation on the well-formedness of Logical Form that applies to the configurations that obtain after the raising of the quantificational element, given in (56):

(56) *A variable cannot be the antecedent of a pronoun to its left.*

Given the Leftness Condition, Brockett argues, Japanese generic sentences should exhibit WCO effects, because the tripartite structure at LF created by the Generic raising in (52) conforms to the template in (55) and if so, then the generic raising hypothesis is correct. The picture of WCO effects in Japanese, however, is a bit more complicated, because S-Structure scrambling and topicalization in Japanese are standardly held not to exhibit WCO effects. Consider (57) and its English counterpart (58):

(57) [John_i-o [kare_i-no hahaoya-ga t_i ai-site iru]] (koto)
 John-ACC he-GEN mother-NOM loving be-IMP (fact)
 '(the fact that) John_i his_i mother loves.'

(58) John_i, his_i mother loves t_i

The LF representations of (57) fit the WCO template, and therefore should be ruled out as ungrammatical by the Leftness Condition. However, (57) is grammatical in Japanese. To circumvent this difficulty, Saito (1985) proposes that a referential NP in a non-argument position at S-Structure may be the antecedent of a pronoun, thus allowing *kare* in (57) to take its reference from *John*. Brockett notes that there is a contrast between definite NPs and indefinite NPs or bare plural NPs: For some speakers, preposing an indefinite object GRC by thematization over an NP containing *kare* results in a significantly worse sentence than when the *wa*-marked constituent is a definite NP. This asymmetry is illustrated in the

contrast between (a) sentences in (59) and (60) and the structurally similar (b) examples, where perfective verb morphology and the deictic demonstratives *sono* ‘that’ or *ano* ‘that over there’ force a definite construal for the WMC:

(59) a. *? *kagakusya_i (to iu mono)-wa kare_i-no raibaru-ga t_i kononde koogeki suru.*
 scientists COMP say thing-TOP he-GEN rival-NOM delightedly attack-IMP

‘A scientist, his rival attacks with glee.’

b. ? *sono kagakusya_i-wa kare_i-no raibaru-ga t_i kononde koogeki sita*
 that scientist-TOP he-GEN rival-NOM delightedly attack-PRF

‘That scientist, his rival attacked with glee.’

(60) a. *? *isya (to iu mono)_i-wa , nanika-ga atta*
 doctor COMP say thing-TOP something-NOM exist-PRF

toki kare_i-no kanzya-ga t_i uttaeru
 time he-GEN patient-NOM sue-IMP

‘A doctor, his patients sue whenever something goes wrong.’

b. ? *Ano isya_i wa kare_i-no kanzya-ga t_i uttae-ta*
 That doctor-TOP he-GEN patient-NOM sue-PRF

‘That doctor, his patient sued.’

Given Saito’s proposal, Brockett argues, the degrading in the (a) examples in (59) - (60) must be attributed to quantificational movement of an object GRC across the subject-internal pronoun, because NP-movement of the GRC in the passive sentence does not affect the acceptability of the sentence, as illustrated in (61):

(61) ? *kagakusya_i (to iu mono)-wa kare_i-no raibaru-ni koogeki-sareru.*
 scientist COMP say thing-TOP he-GEN rival-DAT attack-PASS-IMP

‘A scientist is attacked by his rivals.’

In support of his argument for the quantificational raising hypothesis of GRC, Brockett also points out that definite referential NPs behave differently from bare plural NPs when they occur as object constituents in English generic sentences, too. This contrast is illustrated in the following:

- (62) *Their mothers love children.
- (63) *Their doctors always neglect patients.
- (64) Their children love Mr. and Mrs. Brown.
- (65) Their dogs ingratiated themselves to John and Mary.

In this account, the ungrammaticality of (62) is attributed to the generic movement of *children* and the ungrammaticality of (63), to the generic movement of *patients* at LF.

While I agree with the general idea of tripartite structure for generic sentences, I take issue with Brockett's claim that generic constituents including all thematic *wa*-marked constituents are raised into the Spec of CP, because there are several problems with this Raising hypothesis. One is the fact that the asymmetry between referential definite NPs and indefinite NPs with respect to coreference with backward anaphora, which is the main argument for the Generic Raising Hypothesis, can be also found in the following type of modifiers in (66) and (67), which Bolinger (1979) termed "afterthoughts," constituting assessments of the clause or comments on the relationship between the clauses as a whole and the discourse context.

- (66) He was quite a guy, if John doesn't mind my saying so.
(from Bolinger 1979: 298, quoted in van Hoek 1995: 327)
- (67) * He was quite a guy, if a man doesn't mind criticism about him.

If quantificational raising is a local movement, there is no possibility of “generic raising” or quantificational raising because there is a clause boundary between *a man* and *He* in (67).¹⁵ And yet the referential definite and indefinite NPs show the same type of asymmetry in (66) and (67). Therefore, the contrast between the (a) and (b) versions in (59) and (60) and the contrast between (62)-(65) cannot be as decisive a piece of syntactic evidence for GRC movement at LF and S-structure as Brockett argues.

In arguing for a cognitive grammar account of pronominal anaphora constraints, van Hoek (1995) provides many examples, in which “conceptual continuity / discontinuity” plays a role in backward anaphora. Observe one of his examples which shows that coreference possibilities depends on the precise semantic relationship between the two conjuncts:

(van Hoek 1995:328)

- (68) a. * He lied to me and John betrayed me.
 b. He lied to me, and John was my friend.

In (68a), the second conjunct continues the event description begun by the first conjunct; in (68b), the event description is provided solely by the first conjunct, while the second serves merely as commentary. The contrast in (66) and (67), and (68) indicates that principles that apply across sentences may also apply within a single sentence. The principle in question here seems to be a cognitive rather than a syntactic one.

The second problem, as noted above, is that Brockett’s hypothesis of the *wa*-marked constituent raising into the Specifier of CP is based on the assumption that all thematic *wa*-marked NPs are associated with a unique syntactic slot. However, two facts indicate that this assumption is false. First, the assumption that a thematic *wa*-marked NP

¹⁵ Hoek (1995) terms the *if* clause in (64) “a process-external modifier which is separated from the processual profile by a conceptual break.”

is associated with a unique syntactic slot is based on Kuno's observation that when two or more *wa*-marked NPs co-occur in a sentence, only the leftmost *wa*-marked constituent in the linear string may be construed as thematic (Kuno 1978:313). As Brockett points out, Kuno's generalization, however, can be counter-exemplified by sentences containing non-argument locative or temporal *wa*-marked constituents, which are not NPs. In (69), the subject NP *Taroo-wa*, which is to the right of the locative *wa*-marked constituent, is not construed as contrastive:

- (69) tosyokan-de-wa, Taroo-wa syukudai-ni torikakat-ta.
 library-LOC-TOP Taroo-TOP homework-DAT start work-PRF
 'At the library, Taroo began to do his homework.'

Counter-examples can also be found even in sentences containing sequences of NP arguments. In (70), the second *wa*-marked NP *hito-wa* 'people' needs not be construed as contrastive in a given context:

- (70) zibun-no koto-ga kaite-aru kizi-wa hito-wa kyoomi-o
 self-GEN thing-NOM written-be article-TOP people-TOP interest-ACC
 motte yonde miru.
 with read-GER see-IMP
 'Articles written about themselves_i, people_i read with interest.'

In (70), neither *wa*-marked constituent is contrastive.¹⁶ Faced with counter-examples like (70), Brockett assumes that in (70), both subject and object *wa*-marked constituents have

¹⁶ In the following example (cf. McGloin 1987: 165), the second NP *onna wa* is not contrastive either:

tooji -no hooritusu- de-wa onna-wa kubunden-wa mora-e-na-katta.
 that time-of law by woman-TOP land-TOP receive-can-NEG-PAST

moved into the CP projection, with the subject undergoing string-vacuous Spec-to-Spec movement, and the other *wa*-marked constituent, in this case the object, being adjoined to CP. This assumption contradicts a basic principle in Government and Binding Theory that there is no adjunction to CP (cf. Chomsky 1986:6). Furthermore, it also weakens the assumption that a thematic *wa*-marked NP is associated with a unique syntactic slot, upon which Brockett's theory is based, because the position created by adjunction is a non-argument position and therefore it is structurally different from the Spec of CP, which is an argument position. The third problem is that certain types of thematic *wa*-marked constituents behave differently from normal thematic *wa*-marked constituents with respect to scrambling and the Nominative marker *ga*. In the following section, we shall observe the different behaviors of different types of topics with regard to scrambling, the Nominative marker, and the exhaustive interpretation. This fact undermines the claim that all *wa*-marked NPs are associated with a unique syntactic slot. At the end, we explore the implications of this observation with regard to the syntactic position of topic construction in Japanese and Korean.

Another fundamental problem with the claim that *wa* is a marker for genericity or epistemic necessity leaves other uses of *wa* such as contrastiveness unexplained, or it has to resort to a polysemy solution, positing two different senses of thematic and contrastive *wa* at the level of lexicon, which is certainly undesirable from the point of view of economy.

2.3 Scrambling and Topic

Topics which have an argument relationship with the predicate can be preceded by a scrambled element in Japanese as illustrated in (71a) and (71b):

- (71) a. Hanako-wa Taroo-o seme-ta
Hanako-TOP Taro-ACC blame-PAST
- b. Taroo-o Hanako-wa t_i seme-ta.
Taro-ACC Hanako-TOP blame-PAST
- ‘Hanako blamed Taro.’

In (71a), *Hanako*, which binds an empty site in the subject position, has an argument relationship with the predicate *semeru* ‘to blame’, and allows the object *Taroo* to be scrambled to its left. Thus (71b) is acceptable. However, this is not the case with non-argument topics such as *sakana* in (72):

- (72) a. sakana-wa tai-ga i-i.
fish-TOP red snapper-NOM good-PRES
- ‘As for fish, red snapper is the best.’
- b. * tai-ga sakana-wa t_i i-i.
red snapper-NOM fish-TOP good-PRES

Sakana in (72), which has no argument relationship with the predicate *i* ‘is good’, does not allow *tai* ‘red snapper’ to be scrambled to its left.

Scrambling is also impossible past “conditional topics,” a class of *wa*-marked phrase which was originally observed by Mikami (1960) and discussed in Kuno (1973b: 163) and Tateishi (1990):

- (73) a. shinbun-o yomi-tai hito-wa koko-ni aru.
newspaper-ACC read-want man-TOP here-LOC exist
- ‘If somebody wants to read a newspaper, here is one.’
- b. * koko-ni shinbun-o yomi-tai hito-wa t_i aru.
here-LOC newspaper-ACC read-want man-TOP exist

As can be seen in (72) and (73), neither the conditional topic nor the topic which has no argument relationship with the predicate allows scrambling past it. Korean shows an exactly parallel behavior in this respect.

Lee (1993) claims that while no element can be scrambled across a left-dislocated element, there is no such restriction for topic-marked phrases in Korean. However, not all topic-marked phrases allow scrambling past them. In order to see what determines the possibility of scrambling, a closer examination of topic-marked phrases in Korean is in order.

The topic construction in Korean, i.e., a sentence-initial *nun*-marked constituent, does not lend itself to a uniform characterization at first glance. To categorize topics functionally: (i) The topic is used to turn the attention of the hearer to some accessible entity in the discourse or to establish the setting, and then to assert or question something of that entity or the setting; (ii) It is used to mark the constituent in the generic sentence whose property is asserted; (iii) It is attached to a conditional topic, an NP that has something of a vocative value which draws the attention of those to whom the statement that follows is intended. The following sentences exemplify each type of the *nun*-marked phrases.

(74) *na-nun* *ku kum sikyey-lul* *keci-eykey cwu-ko mal-ass-ta.*
 I-TOP the gold watch-ACC beggar-to give-ended up-PAST-DECL

‘I ended up giving the gold watch to a beggar.’

(75) *ku chayk-un* *Sumi-ka* *pillyeka-ss-ta.*
 the book-TOP Sumi-NOM borrow and take-PAST-DECL

‘As for that book, Sumi borrowed it (from us).’

(76) *Bobby-nun* *meli-ka* *coh-ta.*
 Bobby-TOP brain-NOM good-DECL

‘Bobby is smart.’

- (77) ku pul-un tahayngi sopangtay-ka ilccik tochakhay-ss-ta.
the fire-TOP fortunately fire-brigade-NOM early arrive-PAST-DECL
'As for that fire, fortunately, the fire brigade arrived promptly.'
- (78) halmeni-m-un kyelhon saynghwal-i wenmanha-ci mos hay-ss-ta.
grandmother-HON-TOP marriage life-NOM smooth-ci NEG -PAST-DECL
'Grandmother's married life was not smooth.'
- (79) sayngsen-un tomi-ka ceyil-i-ta.
fish-TOP snapper-NOM best-be-DECL
'As for fish, snapper is the best.'
- (80) kolay-nun phoyu tongmul i-ta.
whales-TOP mammals be-DECL
'Whales are mammals.'
- (81) kilum-un mul wi-ey ttu-n-ta.
oil-TOP water up-on float-DECL
'Oil floats on water.'
- (82) hoy.uy-ey chamkaha-ko siphu-n salam-un sinchengse-ka
meeting-in participate-want-PRES person-TOP application form-NOM
yeki-ey iss-upni-ta.
here-in be-HON-DECL
'If anyone wants to participate in the meeting, application forms are here'

Sentences (74)- (78) belong to the first category. Sentences (79) - (81) belong to the second category, generic sentences.¹⁷ Finally (82) is an instance of conditional topics. In (74) and (75), the topic is interpreted as the filler of the obvious gap in each sentence; the topic in (74) binds an empty site in the subject position and the topic in (75), one in the

¹⁷ (79) is different from both (80) and (81) in that while both (80) and (81) describe general properties of the generic NPs, whales and oil respectively, (79) expresses the speaker's subjective opinion about the generic NP, fish. However, these sentences can be considered as generic sentences because they are about the generic nouns.

object position. Thus, (74)' and (75)' in the following are truth-conditionally identical to (74) and (75) respectively:

(74)' nay-ka ku kumsikyey-lul keci-eykey cwu-ko mal-ass-ta.
I-NOM the gold watch-ACC beggar-to give-ended up-Past- DECL
'I ended up giving the gold watch to the beggar.'

(75)' Sumi-ka ku chayk-ul pillyeka -ss -ta.
Sumi-NOM the book-ACC borrow and take-PAST- DECL
'Sumi borrowed the book and took it.'

This type of topic, termed here "argument topic," allows other constituents in the sentence to be scrambled to its left, as illustrated in (83) and (84):

(83) ku kum sikyey-lul na-nun 꺾 keci-eykey cwu-ko mal-ass-ta.
the gold watch-ACC I-NOM beggar-to give-ended up-PAST-DECL
'I gave that gold watch to a beggar.'

(84) Sumi-ka ku chayk-un 꺾 pillyeka-ass-ta.¹⁸
Sumi-NOM the book-TOP borrow and take-PAST-DECL
'Sumi borrowed (from us) the book.'

The topic of (76) *Bobby -nun*, on the other hand, has no argument relationship with the predicate *coh-* 'is good'. *Bobby* in (76) is a definite possessor NP and the second Nominative-marked NP is an inalienable body part NP. In (79), the topic, *halmenim* 'grandmother' has a possessor-possesive relationship with the second NP, *kyelhon*

¹⁸ In cases like (84), it is not clear whether the subject *Sumi-ka* is scrambled or base-generated and the object *ku chayk* is simply marked with *nun* because the word order is the basic SOV.

saynghwal ‘married life’, and the topic NP *halmenim* has no argument relationship with the predicate *wenmanha-* ‘is smooth’. The topic NP of (77) *sayngsen-un* as ‘as for fish’ also has no argument relationship with its predicate *coh-* ‘good’. Neither does the topic NP of (78) *ku pul-un* ‘as for that fire’. What is common in (76) - (79) is a part-whole relationship: The first NP denotes the biggest / whole referent and the next NP denotes a smaller part referent. The function of these topics is to establish setting, within which the following clause holds. In contrast to the argument topics in (74) and (75), this type of topic does not allow any constituent of the sentence to be scrambled to its left except modal adverbs such as *tahayngghi* ‘fortunately’.¹⁹ This is illustrated in the following:

- (85) * meli-ka Bobby-nun coh-ta.
 brain-NOM Bobby-TOP good- DECL
 ‘Bobby is smart.’
- (86) * tomi-ka sayngsen-un ceyil-i-ta.
 snapper-NOM fish-TOP best-be- DECL
 ‘As for fish, snapper is the best.’
- (87) * sopangtay-ka ku pul-un tahayngghi ilccik tochakhay-ss-ta.
 fire brigade-NOM the fire-TOP fortunately early arrive-PAST-DECL
 ‘As for that fire, fortunately the fire-brigade arrived promptly.’
- (88) tahayngghi ku pul-un sopangtay-ka ilccik tochakhay-ss-ta.
 fortunately the fire-TOP fire brigade-NOM early arrive-PAST-DECL
 ‘As for that fire, fortunately the fire-brigade arrived promptly.’

In generic sentences such as (80) and (81), the generic NP is realized as the topic.

As illustrated in the following, these topics do not allow scrambling either.

¹⁹ The reason why modal adverbs such as *tahayngghi* ‘fortunately’ can be scrambled is presumably because these adverbs are attached higher up in the tree (Laurence Horn, personal communication).

- (89) * mul wi-ey kirum-un ttu-n-ta.
 water above-at oil-NOM float-PRES-DECL
 'Above the water, oil floats.'

As in Japanese, conditional topics in Korean as in (82) also do not allow scrambling. To sum up, the generalization for the topic construction is that argument topics differ from non-argument topics, generic NP topics, and conditional topics in that while argument topics allow scrambling, the other types of topics do not allow it in Japanese and Korean.²⁰

2.4 The Nominative Marker and Exhaustive Interpretation

Another aspect in which argument topics, non-argument topics, generic NP topics, and conditional topics show differences is their behavior with respect to the Nominative marker. In this respect, Korean and Japanese behave in an identical manner. An argument topic in Japanese that binds an empty site in the subject position such as (71) repeated as (90) below, can be marked with the Nominative marker *ga*, without necessarily inducing a focus interpretation, as illustrated in (91):

- (90) Hanako-wa Taroo-o seme-ta.
 Hanako-TOP Taroo-ACC blame-PAST

'Hanako blamed Taroo.'

- (91) Hanako-ga Taroo-o seme-ta.
 Hanako-NOM Taroo-ACC blame-PAST

'Hanako blamed Taroo.'

²⁰ If scrambling across the generic NP such as *yemso-nun* forces a contrastive reading, which appears to be correct, then we can say that generic NPs do not allow scrambling past them.

As noted before, the marker *nun* in argument topics in Korean like (74) and (75) also can be replaced by Case markers both in root clauses and in embedded clauses without inducing the interpretation of exhaustive listing or any difference in truth condition: when the topic is interpreted as the filler of the subject gap, it can be replaced by the Nominative marker, and when the topic is interpreted as the filler of the object gap, by the Accusative marker, as was shown in (74)' and (75)'.

In contrast to argument topics, conditional topics such as Japanese example (73) and Korean example (82) cannot be marked by any case marker in any circumstance, as illustrated in (92) and (93):

- (92) * shinbun-o yomi-tai hito-ga koko-ni aru.
 newspapers-ACC read-want to people- NOM here-at exist
 'For those who want to read the newspaper, here it is.'

- (93) * hoy.uy-ey chamkaha-ko siph-un salam-i sinchengse-ka
 meeting-in participate-want-MOD people-NOM application form-NOM
 yeki-ey iss-upni-ta.
 here-in exist-HON-DECL
 'For those who want to participate in the meeting, here are the application forms.'

The function of conditional topics is categorically different from the other types of topics. They cannot appear in embedded contexts,²¹ and it is limited both semantically and

²¹ Tateishi (1990) reports that for some Japanese speakers, conditional topics can appear in an embedded context without any difficulty:

Taroo-wa [cp[dp[IP shinbun-o yomi-tai] hito-wa] IP X koko-ni aru] to] shinji-ta.
 'Taro believed that there is a newspaper if somebody wants to read one.'

My Japanese consultant, Chioko Takahasi, rejected the conditional topic, even in matrix sentences, not to mention the conditional topics in embedded context. Conditional topics in embedded context are unacceptable in Korean. Therefore, we can conclude that conditional

functionally; the sentence addresses a group of people, and says that just for the case in which they want something, the speaker gives the information about it. In this sense, the construction is very similar to metalinguistic conditionals in English as (94) and (95), where the semantics of conditionals for *if p then q* does not apply at all.

(Austin 1956)

(94) If I may say so, you're looking particularly lovely tonight.

(95) If you're thirsty, there's some beer in the fridge.

For this reason, one might say that the conditional topic is not a core phenomenon, thereby agreeing with Kuroda (1987), who excludes conditional topics from consideration as true topic phrases. Being limited both semantically and functionally, the conditional topic is not very productive. In this paper, we will simply suggest the possible syntactic position for this type of topic in the case when it is considered as one type of topic construction at the end of this section.

Let's turn to generic topics. These topics alternate freely with nominative-marked phrases; however, if the NP is nominative it cannot receive the generic interpretation, provided it is not read as an exclusive focus.

(96) yemso-nun cong.i-lul mek-nun-ta.
goat -TOP paper-Acc eats.

'A goat eats paper.'

(97) yemso-ka cong.i-lul mek-nun-ta.
goat-NOM paper-Acc eats

'A goat is eating paper.'

'The goat is eating paper.'

'Goats are eating paper.'

topics are extremely limited syntactically, semantically, and functionally, and therefore can be excluded from consideration as true topic phrases.

Thus, *yemso* ‘goat’ with *nun* in (96) denotes the kind and the predicate shows some characteristic trait of the goat. The predominant reading of (96) is that the goat has the nature of eating paper. But *yemso* with the Nominative marker in (97) denotes a particular goat and it is a simple description of an event. The predominant reading is an episodic reading, as indicated above. Thus, the predicate in (97) has a “stage-level interpretation” (cf. Carlson 1977b, Diesing 1988). The less likely reading of (97) is the interpretation with the focus on the Generic NP, that is, “It is the goat that eats paper.” Observe the following in (98):

- (98) *kolay-ka* *phoyu tongmul* *i-ta.*
 whales-NOM mammals be-DECL
 ‘It is whales which are mammals.’

Thus, the generic NP with the NOM marker in (98) is acceptable either when it is interpreted with focus on *kolay* ‘whale’, or in the context when someone, having learned the truth that whales are mammals for the first time, expresses his exclamation as in (99):

- (99) *aha!* *Kolay-ka* *phoyu tongmul* *i-kuna.*
 ah! whales-NOM mammals is-EXCL
 ‘Ah! Whales are mammals!’

As remarked before, non-argument topics are of the following types: (i) the NP which denotes the biggest/whole referent in part-whole/subset relationship, as in (100) and (101); (ii) the NP for which the following NP denotes its composing element, as in (102); (3) the NP with which the following NP, in some relevant sense, can be associated, as in (103) and (104):

- (100) sayngsen-un tomi-ka ceyil-i-ta.
fish-TOP snapper-NOM best-be-DECL
'As for fish, snapper is the best.'
- (101) Bobby-nun meli-ka coh-ta.
Bobby-TOP brain-NOM good-DECL
'Bobby is smart.'
- (102) kakwu-nun chamnamu-ka coh-ta.
furniture-TOP oak tree-NOM good-DECL
'As for furniture, oak is good.'
- (103) swuyeng-un waikhikhi-ka coh-ta.
swimming-TOP Waikiki-NOM good-DECL
'As for swimming, Waikiki is good.'
- (104) ku pul-un tahayngi sopangtay-ka ilccik tochakhay-ss-ta.
the fire-TOP fortunately fire-brigade-NOM early arrive-PAST-DECL
'As for that fire, fortunately, the fire brigade arrived promptly.'

When a non-argument topic is marked with the Nominative marker, the sentence is interpreted either with focus on the noun phrase in question, or it is simply the description of perception. That is, it expresses the existence of the eventuality. Observe the following Korean examples:

- (105) Bobby-ka meli-ka coh-ta.
Bobby-NOM brain-NOM good-DECL
'It is Bobby who is smart.' / 'Bobby is smart.'
- (106) halmeni-m-i kyelhon saynghwal-i wenmanha-ci mos hay-ss-ta.
grandmother-HON-NOM marriage-NOM smooth-NML not -PAST-DECL
'Grandmother did not have a smooth married life.'

However, if the non-argument topic is a generic NP, the sentence with the Nominative marker sounds quite unnatural:

(107) * sakana-ga tai-ga i-i. (Japanese)
fish-NOM red snapper-NOM good

‘As for fish, red snapper is good.’

(108) * kakwu-ka chamnamu-ka coh-ta. (Korean)
furniture-NON oak tree-NOM good-DECL

‘As for furniture, oak is good.’

Kuroda (1988) considers the unacceptability of (107) as a problem of semantic anomaly. The presumed meaning of (107), ‘it is fish among which red snapper is the best’, he argues, is semantically anomalous since there are no other kinds in the world among which red snapper can be the best. Kuroda provides the following example in support of his claim:

(109) Oranda no sakana-wa nisin ga yoi
Holland of fish-TOP herring-NOM good

‘Among fish in Holland, herring is the best.’

(110) Oranda no sakana-ga nisin ga yoi
Holland of fish NOM herring-NOM good

‘It is fish in Holland among which herring is the best.’

Given Kuroda’s accounts of generic nouns, we can conclude that generic nouns can be marked with the Nominative marker, but in such cases they are interpreted with the exhaustive focus reading. The different behaviors of three types of topics with respect to scrambling, Nominative marker, and exhaustive focus reading are summarized in table 1.

Table 1

	<i>Scrambling</i>	<i>Nominative</i>	<i>Exhaustive Reading</i>
generic topics	no	yes	obligatory
non-generic topics			
argument topics	yes	yes ²²	not obligatory
non-argument topics	no	yes	not obligatory
conditional topics	no	no	

Table 1 shows the following: (i) With respect to scrambling, only non-generic argument topics allow scrambling. That is, scrambling is not possible past the generic or non-argument topic; (ii) With respect to the Exhaustive Reading associated with the Nominative, the topics split on the criteria of generic vs. non-generic; (iii) Conditional topics are different from the other two types in that neither scrambling nor the Nominative marker is possible.

If the differences in behavior among the three types of topics with regard to scrambling, the Nominative marker, and exhaustive interpretation are to be explained syntactically, the three types of topics must be associated with three different syntactic positions.²³ Following Saito (1985), I assume that scrambling is adjunction.²⁴ Under this assumption, the fact that generic topics do not allow scrambling suggests that they occur in

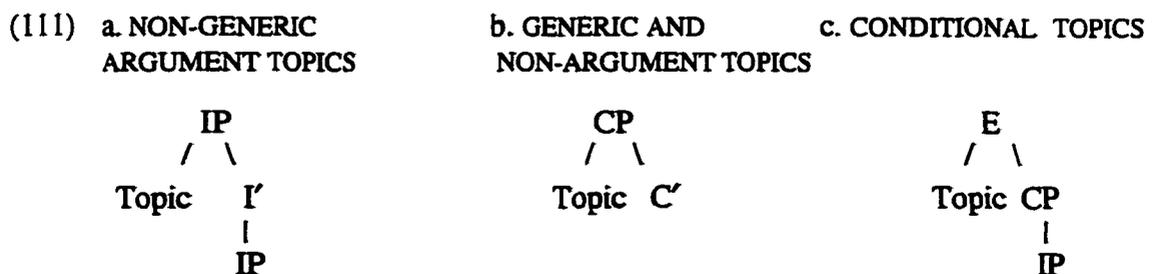
²² Depending on the position of the gap, it can be the Nominative, the Accusative, or any other case.

²³ In examining two types of topics in three Mayan languages, Aissen (1992) suggests that external topics E[xpression], which occur outside CP, be associated with new/switch topics, while internal topic position, which occurs in CP may be associated with other functions, including continuous topics. However, the above examination of the Korean and Japanese topic construction indicates that such a tight connection between syntactic position and function cannot be maintained cross-linguistically, because non-generic topics, which I associated here with SPEC of IP, can have the function of new/switch topics.

²⁴ Lee (1993) also claims that scrambling in Korean is a case-driven adjunction to IP.

a position higher than IP. We can think of two possible positions, SPEC of CP and the root node, represented here by E[expression] (cf. Banfield 1973, Emonds 1985, Aissen 1992). Since a conditional topic is not linked to a position in the following CP, syntactically or semantically, the root node E is better assigned for conditional topics.

If we are to associate each of the three types of topics with different syntactic positions, I suggest the analysis represented in (111), in which non-generic and argument topics are in Spec of IP, generic topics and non-argument topics are in Spec of CP, and conditional topics are under the root node E.²⁵ In this representation, the asymmetry between generic topics and non-generic non-argument topics on the one hand and non-generic and argument topics on the other regarding scrambling can be explained: a scrambled element can be IP adjoined across the non-generic argument topic, while scrambling cannot occur across the topics which are in Spec of CP. As observed above, conditional topics are not linked syntactically or semantically to what follows them, and they do not occur in embedded clauses. These facts follow from the above analysis, because the root node E is outside the structures generated by the X-bar schemata, and hence outside the tight syntactic and semantic cohesion it describes.



²⁵ (111) is consistent with Diesing (1992)'s Mapping Hypothesis in that while material from VP is mapped into the nuclear scope, which is the scope of existential assertion, material from IP and its above is mapped into a restrictive clause. In (111), the topic, whether it be generic or non-generic, is above IP and hence outside the scope of the existential reading.

2.5 Kuroda (1992): The Subject of the Categorical Judgment

According to the classical term logic represented by Aristotle, every (simple) proposition is CATEGORICAL of and of Subject-Predicate form. In contrast, in the philosophy of Brentano (1973 cf. 1874, 1924) and his student Anton Marty, judgments are divided into CATEGORICAL and THETIC judgments. The basis for a thetic judgment is a presentation of an object: an entity or eventuality. An affirmation of such a presentation commits the judge to the existence of something which satisfies the presentation; a denial by contrast expresses a negative existence judgment. The basis for a categorical judgment is compound: first a presentation of a particular entity, and then a property which can be affirmed or denied of the entity. Thus, only the categorical judgment is assumed to conform to the traditional conception of the Subject-Predicate structure, while the thetic judgment is taken as subjectless.

Kuroda (1972, 1992) claims that the NP marked by *wa* represents “the subject of the classical and traditional conception of the Subject-Predicate structure, i.e., categorical judgment.” Thus, (112) expresses a thetic judgment, a judgment without a Subject-Predicate structure: it simply reports the perception of a situation in which a/the cat is sleeping in a certain place. (113) expresses a categorical judgment with *neko* as the Subject: it draws attention first to the cat, and then says of the cat that it is sleeping there.

(112) neko-ga asoko de nemutte iru (Thetic)
 the/a cat there at sleeping is
 ‘the /a cat is sleeping there’

(113) neko-wa asoko de nemutte iru (Categorical)
 the cat there at sleeping is
 ‘The cat is sleeping there’

Marty maintained that these two types of judgment have quite different structures, not necessarily in linguistic structure, but in cognitive structure: while a thetic judgment is a simple form of a judgment, a unitary cognitive act, a categorical judgment is a double judgment which involves RECOGNITION OF THE SUBJECT (cf. Kuroda 1972).

In his modified view of Marty's theory of judgment, Kuroda (1992) maintains that while the fundamental characteristic of a thetic judgment is SELF-CONTAINEDNESS, what is essential for the categorical judgment is the APPREHENSION of SUBSTANCE. A thetic judgment is based on a perception. The cognitive act of making a thetic judgment is confined within the limit of this act of perception. Thus, in the sentence *A cat is sleeping there* one has the perception of a cat sleeping.

In the perception an entity is recognized as a cat ... No connection to any cognitive entity or condition is needed beyond the confines of this perception. 'a cat' refers to a specific cat perceived. It has an object of reference, an object perceived. However, this object cognitively exists only in and with this perception. An object in this judgment may not have to cognitively exist anywhere else or any time else. A thetic judgment is self-contained and self-sufficient.

(Kuroda 1992: 27)

If "self-containedness" is defined as such that entity recognized in a perception may not have to cognitively exist anywhere else or any time else, nor be connected to any entity or condition, then what is the "apprehension of substance?" Although it is not clear, Kuroda seems to have in mind a kind of "definiteness": if an entity recognized in a perception "subsists beyond the confines of each perception and/or is connected to any entity or condition" it can be said that it is apprehended as substance. Since the apprehension of substance is essential in the categorical judgment, in (113) the cat in the perceived situation must be apprehended as substance. This is why the subject of the categorical judgment must be definite. However, if "apprehension of substance" is defined as above, it cannot be a defining characteristic of the categorical judgment because an entity

apprehended as substance can be the subject of a thetic judgment also. Compare the situation in (112) involving an indefinite cat referred to by an indefinite noun with the one involving instead a particular cat known to the speaker as Tama in (114):

- (114) Tama-ga asoko-de nemutte iru
 Tama-NOM there-at sleeping be
 ‘Tama is sleeping there.’

“The cognitive existence of the referent of a proper name is independent of a particular perception: It transcends and subsists beyond the confinement of any perception” (Kuroda 1992: 35). Thus, *Tama* is apprehended as substance, but *Tama* is attached with *ga* and therefore sentence (114) is a thetic judgment. Faced with this complication, Kuroda states that “so far as the thetic judgment [(114)] is concerned, which is a direct response to the perceptual intake of the present actual situation, the substantive character of Tama is not essential” (1992:35).

If the categorical judgment is fundamentally different from the thetic judgment, what is the essential difference between the two types of judgment? The thetic judgment expresses a simple affirmation of the existence of an actual situation, whereas the categorical judgment expresses a cognitive act of ATTRIBUTING to a specific entity the function it has in the situation. In order to attribute the function to an entity, another cognitive act of RECOGNITION of that entity as SUBJECT must precede. In other words, the speaker draws attention first to the entity. In order to draw the attention to the entity, the cognitive status of the entity must be assumed to have existed in advance. It is the presuppositional nature of the subject of categorical judgment which divides the two modes of judgment. It is “presuppositional” in two related senses: (i) the entity must have been under discussion; it does not have to exist in the real world; (ii) the existence of the entity is not asserted, but taken for granted and hence outside the scope of assertion.

To put it another way, the subject of the categorial judgment must be existent in a salient state in the universe of discourse so that the speaker draws attention first to the entity. Thus, the subject must occur first, but outside the existential scope in the sentence structure. In a categorial judgment, the subject is presented not by the speaker's act of introducing it as a new entity, but by the speaker's act of drawing attention to it. This follows from the presuppositional nature of the subject of a categorial judgment. In order for the "apprehension of substance" to be the defining characteristic of a categorial judgment, it must be defined in terms of presupposition in the above sense.²⁶ The reason why *wa* must be used for the presupposed subject of the categorial judgment as well as for other functions such as contrast will be explained later by the argument structure of the marker.

However, Kuroda's claim that *wa* itself is a marker of the logical subject of a categorial judgment leaves unexplained other uses of the marker including the contrastive use exemplified in (115), or alternatively it implies that there are two different kinds of *wa*.

- (115) John-ga Bill-wa butta.
 John -NOM Bill-TOP hit
 'John hit Bill (but not other people).'

Therefore, while I agree with Kuroda's claim that sentences like (112) expresses athetic judgment and sentences like (113), a categorial judgment, his analysis of *wa* itself as the subject marker of a categorial judgment must be rejected.

²⁶ Ladusaw (1994) explains the presupposed nature of the subject of a categorial judgment as such that a precondition for making the judgment is that "the mind of the judge must be directed first to an individual, before the predicate can be connected to it."

2.6 Deictic Center Perspective: the Subject of the Point of View

In examining the functional difference between *ga* and *wa*, Watanabe (1990) proposes that *wa* has the function of marking an entity which represents the deictic center perspective and an entity which is already within the deictic center perspective, while *ga* has the function of presenting an entity which is emerging into the deictic perspective. The notion of DEICTIC CENTER here refers not only to the spatio-temporal locus of the object and events in narrative, but it also incorporates psychological frameworks in the narrative, i.e., viewpoint. Thus, the uses and shift between *wa* and *ga* in the following children's story book called *Tsuribashi Yurayura* 'Hanging Bridge' are explained by the shift of the deictic center. In the story, Baby Fox, Baby Bear, and Baby Rabbit came to a hanging bridge. They had never crossed the bridge before. There came Uncle Boar across the bridge, and they heard from him that a Baby Girl Fox was living on the other side. They wanted to cross the bridge, but they were afraid. That night in bed, Baby Fox talked to himself, and imagined himself crossing the hanging bridge:

(Baby Fox opened his eyes wide in the dark.)

- (116) “Yurayura yurayura-tte boku....”
Swinging(onomatopoeic)-quote I
- Yami-no naka-no, tsuribashi-ga ukabi, sono ue-o
darkness-GEN in-DAT hanging bridge-NOM emerge & that surface-ACC
- kowagowa wata-tteyuku, jibun-no sugata-ga mieru-yoodeshita.
timidly cross-go and self-GEN figure-NOM be visible-seem-PAST
- Kitsune-no ko-wa awatete me-o tsuburi-mashita.
fox-GEN kid-WA in a hurry eye-ACC close-PAST
- “Swinging, swinging and I... “
(The) hanging bridge appeared in the darkness, and the picture of himself
timidly crossing it was almost visible. Baby Fox closed his eyes in a
hurry.” (p.32-33)

The experiencer of seeing the bridge in the dark has to be interpreted as the WA-marked nominal, namely Baby Fox, and not any other character in the story. The reader is seeing the event through a “filter”, which is Baby Fox at this point of the story. Baby Fox with WA-marking serves as not only a physical but also psychological reference point for interpretation of the text, and therefore the vision is understood as what is happening within Baby Fox’s mind. (Watanabe 1990:136-137)

After the transition to the WA-marking in (116), the marking of Baby Fox turns to GA again on page thirty-four in the original text as shown in (117) below. This is again explained by the shift of the deictic center:

(117) Tsugino asa kitsune-no ko-ga tsuribashi-tamoto-ni yatteki-mashita.
next morning fox-GEN baby-NOM hanging bridge-foot-at came

‘The next morning, Baby Fox came to the foot of the hanging bridge.’

When Baby Fox is WA-marked in the imaginary context, the story tells what is psychologically happening to Baby Fox through his own eyes, while in the presentation of Baby Fox at the bridge, the story gives an objective picture of what Baby Fox is doing in the story. (Watanabe 1990:137)

In short, Watanabe claims that *wa* is a marker of the subject of point of view.

In associating *wa* with six packaging phenomena that Chafe (1976) proposed (i.e., given / new, focus / contrast, definite / indefinite, subject of the sentence, topic of the sentence, speaker’s point of view / the speaker’s empathy), Maynard (1980, 1987: 58) also detects the role of *wa* in the manifestation of the narrator’s point of view: “In fact, the discourse functions of the Japanese theme-marker *wa* used in narrative are closely associated with all the aspects of packaging which Chafe proposes... By investigating *wa* usage as well as *wa* avoidance in identifying participants of the narrative, we begin to understand the viewing position the narrator takes toward the narrative content.”

On the basis of the study of *wa* phrases in the Japanese translations of Tolstoy, Lawrence, and Faulkner, Kuroda (1987) also concludes that the function of *wa* in these novels is to express the point of view or the locus of consciousness of the *wa*-marked

subject. He further claims that three cases of *wa*-phrases, nonreflexive of the point of view, reflexive of the point of view, and locus of consciousness, all conform to the structural characteristic of the Brentano-Marty concept of categorical judgment as a “double” judgment. In short, logophoricity is identified as the key function of *wa* in written Japanese.

2.7 Miyagawa: Set Anaphoric

Generally, WH phrases followed by *wa* are unacceptable. It must be followed by an appropriate case marker as in (119). In certain contexts, however, native speakers use such a construction, as illustrated in (120):

(Martin 1975: 61)

- (118) * dare-wa kita-no?
 who-TOP came-Q
 ‘Speaking of whom, did he/she/they come?’
- (119) dare-ka kita-no?
 who-NOM came-Q
 ‘Who came?’
- (120) dare-wa kite, dare-wa konakatta-no?
 who-TOP come who-TOP didn’t-come-Q
 ‘Who came, and who didn’t?’

With regard to this respect, the Korean counterpart *nun* behaves exactly the same:

- (121) * nuwkwu-nun pang-ul chiwu-ess-e?
 who-TOP room-ACC cleaned
 ‘Speaking of whom, did he/she/they clean the room?’

- (122) nuw(kwu)-ka pang-ul chiwe-ess-e?
 who -NOM room-ACC cleaned
 ‘Who cleaned the room?’
- (123) nuwkwu-nun mwes-ul hako nuwkwu-nun mwes-ul hako -lul
 who-TOP what-ACC do who-TOP what-ACC do-ACC
 cengha-yese mili allyecwu-eya toy.
 decide-and in advance inform-must
 ‘You have to decide who does what, and let them know about it in
 advance.’

What makes a WH phrase with the *wa/nun* acceptable in a context like (120) and (123)? As the essential condition for the appropriateness on the use of WH+*wa*, Miyagawa (1987) identifies the presupposition of the existence of an identifiable set of individuals shared by the speaker and the hearer in the immediate conversational context. Why is this condition necessary for WH+*wa*? What is the relation between this predetermined set of individuals and WH+*wa*? Miyagawa proposes that *wa* is a marker for “Set Anaphoricity”: WH+*wa* is making some kind of reference to the set, and this reference is an anaphoric relation that holds between WH+*wa* and its antecedent, the identifiable set. Miyagawa’s view of *wa* is compatible with the anaphoric account of presupposition (cf. van de Sandt 1992, Delin 1992) and my approach, which will be explicated in Chapter 3, in which *wa* is a marker for presupposition.

I have examined in this chapter previous major syntactic studies on the Korean postpositional marker *nun* and its Japanese counterpart *wa*. Whitman (1989, 1990)’s hypothesis of co-occurrence relation between modals and topic phrases claims that topic phrases in Korean and Japanese are possible only where modals are also possible: that is, it is the modal element which licenses the topic being marked with *nun* in Korean and *wa* in Japanese. However, a close examination of the Quotative complementizer *-ko* in Korean, *to* in Japanese, the factive complementizer *-kes*, and the construction of clause final modals

such as Indicative *-ta*, Propositive *-ca*, Imperative *-(u)la*, Interrogative *-nya*, and Conditional *-myen* (i.e., *-tamyen*, *-camyen*, *-lamyen*, and *-nyamyen*) in Korean leads us to conclude that Whitman's hypothesis cannot be maintained.

Following the quantificational analysis of English generic sentences, Brockett (1991) claims that the tripartite structure of generic sentences do not just exist at Logical Form but actually represent the linguistic structure of Japanese generic sentences including all *wa*-marked sentences. He further claims that all *wa*-marked constituents have been raised out of IP into SPEC of CP. The main argument for his GRC raising hypothesis is based on the asymmetry of Weak Cross Over effects manifested between definite NPs and indefinite NPs or bare plural NPs. However, the asymmetry between referential definite NPs and indefinite NPs with respect to coreference with backward anaphora is also manifested in modifiers which Bolinger (1979) termed "afterthoughts," where there is no possibility of quantifier raising. Furthermore, a close examination of the behaviors of various types of topic phrases in Japanese with respect to scrambling, the Nominative marker, and exhaustive interpretation reveals that the assumption that all *wa*-marked NPs are associated with a unique syntactic slot cannot be maintained. Since Brockett's claim is based on this assumption, his hypothesis must be rejected. In this chapter, possible syntactic positions for different types of topics — generic topics, non-generic argument topics, non-generic non-argument topics, and conditional topics — are suggested based on their interactions with scrambling, the Nominative marker and exhaustive interpretation.

The two traditions in the semantico-functional approach are distinct: In the discourse-characterization account, the discourse status of a *wa*-marked noun phrases such as "anaphoricity" or "discourse registry" plays an important role. These notions (cf. Kuno 1972, 1973) were not discussed in this chapter but are critically examined in Chapter 3. Another tradition, which I call cognitive characterization, maintains that the two types of

sentences, *wa*-marked sentences and non-*wa*-marked sentences, represent two cognitively different types of description. While Kuroda (1992)'s application of Brentano-Marty's distinction between the Categorical and the Thetic judgments on the two types of sentences is on the right track, his notion "apprehension of substance" does not clearly differentiate the two types of sentence structures. As the defining notion of the subject of Categorical judgement, I proposed the notion "presuppositional" in the two related senses: (i) The entity must have existed in the universe of discourse; (ii) That the existence of the entity is not asserted but taken for granted and hence outside the scope of assertion. This notion of presupposition plays an important role in the discussions of the next Chapter.

Chapter 3

Topicality, Genericity, Contrastiveness, and Logophoricity

Constituents marked with *wa* in Japanese and *nun* in Korean do not readily lend themselves to a uniform characterization. To categorize these constituents functionally:

(i) The particle is used to mark the constituent in the generic sentence of which a property is asserted, as illustrated in the following pair of Korean (K) and Japanese (J) sentences:

(1) K. kilum-un mul wi-ey ttu-n-ta.
oil-TOP water up-on float-DECL

‘Oil floats on water.’

J. kuzira-wa in-o funda uta-o utau.
whales-TOP rhyme-ACC tread-PRF song-ACC sing-IMP

‘Whales sing songs that rhyme.’ (Matsushita 1928: 713)

(ii) A *nun* or *wa*-marked constituent is used to turn the attention of the hearer to some accessible entity in the discourse or to set the stage, and then to assert or question something about that entity or the stage in which it is set:

(2) K. a. halmeni-m-un kyelhon saynghwal-i wenmanha-ci mos hay-ss-ta.
grandmother-HON-TOP marriage life-NOM smooth NEG do-PAST-DECL

‘Grandmother’s married life was not smooth.’

b. i kulim-un nwu-ka kuliessse?
this picture-TOP who-NOM drew

‘Who drew this picture?’

- J. a. kono hon-wa minna-ga yondeiru.
 this book-TOP everyone-NOM reading
 ‘This book is such that everyone is reading (it).’
- b. ano hito-wa dare-ga yonda?
 that person-TOP who-NOM invited
 ‘Who called that person?’

(iii) The particle is used to set off an item in contrast as in (3K), a Korean proverb warning people to watch their talking, where “daytime words” is in contrast with “nighttime words,” and in (3J), a Japanese sentence, where “John” and “Mary” are contrasted:

- (3) K. nac-mal-un say-ka tut-ko, pam-mal-un
 daytime-words-TOP bird-NOM listen-and night-words-TOP
 cwi-ka tut-nun-ta.
 mouse-NOM listen-PRES-DECL
 ‘Birds overhear you in the day and mice overhear you at night.’
- J. John-wa nihongo-ga dekimasu-ga Mary-wa deki-masen.
 John-TOP Japanese-NOM can but Mary-TOP can not
 ‘John can speak Japanese, but Mary can’t.’

(iv) The particle is used to mark the constituent of which the predicate is denied in a negative sentence as in (4):

- (4) K. na-nun ku yeca-wa yukchey kwankyey-ka eps-ess-ta.
 I-TOP the woman-with body relationship-NOM didn’t exist
 ‘I did not have sexual relations with that woman, Ms. Lewinsky.’
 [translation of Clinton’s denial regarding his alleged involvement with
 Monica Lewinsky]

J. kusuri-wa nom-ana-katta.
 medicine-TOP drink-NEG-PAST

'(I) did not take medicine.'

Thus, as McGloin (1987:168) notes, (4J) but not (4J'),

(4) J'. kusuri-o nom-ana-katta.
 medicine-ACC drink-NEG-PAST

'(I) did not take medicine.'

is an appropriate answer to the question, *kesa kusuri o non-da deshoo ne* 'You took medicine this morning, didn't you?', where the corresponding affirmative is activated.

(v) The particle is used in logophoric sentences to mark the NP whose point of view is presented in the narrative:

(from *Thoci* 'Land' by Park Kyongli)
 quoted from *Wulimal, kul, sayngkak*: 384)

(5) K. twu son-ul phyepoi-myense, Kilsangi-nun nangphayhan-tus
 two hands-ACC show-while Kilsang-TOP embarrassed-as if
 sulphuntus nwun-ul tul-e Sehuy-lul chyeta po-n-ta.
 sadly eyes-ACC raise-INF Sehuy-ACC look up-PRES-DECL

'Showing two palms, Kilsang is looking up at Sehuy, embarrassed and sad.'

(5K) describes a scene in which Kilsang was looking up at Sehuy, embarrassed and sad, when his mistress, Sehuy, complained that Kilsang's hands were dirty so she would not eat the chestnuts that he had already peeled for her. If the event of Kilsang's looking up at Sehuy were presented from the third person's point of view, Kilsang would be marked by the Nominative marker, *ka/i*. (*Kilsang-i Sehuy-lul chyeta po-nta*). The following sentences of Baby Fox from a children's story book called *Tsuribashi Yurayura* 'Hanging Bridge' shows that the Japanese *wa* has the same function:

- J. “yurayura yurayura-tte boku....”
Swinging (onomatopoeic)-quote I
- yami-no naka-ni, tsuribashi-ga ukabi,
darkness-GEN in-DAT hanging bridge-NOM emerge and
- sono ue-o kowagowa wata-tteyuku, jibun-no
that surface-ACC timidly cross-go and self-GEN
- sugata-ga mieru-yoo-deshita.
figure-NOM be visible-seem-PAST
- kitsune-no ko-wa awatete me-o tsuburi-mashita.
fox-GEN kid-TOP in a hurry eye-ACC close-PAST

“Swinging, swinging and I..”
(The) hanging bridge appeared in the darkness, and the picture of himself timidly crossing it was almost visible. Baby Fox closed his eyes in a hurry.” (p.32-33)

The experiencer of seeing the bridge in the dark, as Watanabe (1990: 137) points out, has to be interpreted as the WA-marked nominal, Baby Fox, and not any other character in the story.

(vi) Marginally¹, the particle is attached to a conditional topic, an NP that has something of a vocative value, which draws the attention of those to whom the statement that follows is directed:

- (6) K. hoy.uy-ey chamkaha-ko siph-un salam-un sinchengse-ka
meeting-in participate-want-MOD person-TOP application form-NOM
- yeki-ey iss-upni-ta.
here-in be-HON-DECL

‘Those who want to attend the meeting, here are the application forms’

- J. shinbun-o yomi-tai hito-wa koko-ni aru.
newspapers-ACC read-want to people-TOP here-at is

‘For those who want to read the newspaper, here it is.’

¹ This type (loose reference) is frowned upon by careful speakers, who treat these sentences as “poorly edited.” Even for most speakers, this type of sentence is not common. In this sense, conditional topic is marginal.

Shibatani (1990: 263) contends that the often associated “meanings of *wa* and *ga* (i.e., “thematic” and “contrastive” for *wa* and “descriptive” and “exhaustive-listing” for *ga*) must be considered as epiphenomenal rather than basic to these particles.² A deeper analysis must seek the fundamental differences between the two types of sentences (i.e., *wa*-marked and non-*wa*-marked sentences).” It is true that in the literature the notion of sentence topic has been directly associated with the marker *wa* as if the notion of topic is the nature or the meaning of the marker. In order for a theory to account for the full range of the distribution of *wa*, however, this direct association must be rejected, because the marker *wa* appears not just in topic-comment sentences but also in other sentence structures such as contrastive sentences,³ generic sentences, denial sentences, logophoric sentences, and conditional topic sentences in Japanese. Otherwise, topichood must be generalized to include all these functions, which cannot be done in a non-ad hoc way. Its counterpart *nun* in Korean also appears in these environments, as can be seen in the examples (1K-5K).

A question now arises. What makes the postpositional marker *wa/nun* appear in these structures? Is there something that those sentence structures have in common? Or is there something special in the nature of the marker that can account for all the functions that the marker seems to perform in these structures? In view of the seemingly diverse functions of *wa*, a unified theory of *wa* has so far seemed somewhat unfeasible. In this chapter, I propose a theory for the postpositional marker *nun* in Korean and its counterpart *wa* in Japanese, viewed from an argument structure perspective which will account for the diverse functions of the marker; that is, while case markers in these languages have one argument, the postpositional marker *wa/nun* has the argument structure of a relational noun, *y x*.

² Essentially the same point is made in Heycock 1993.

³ For some analysts, contrastive sentences are a subcase of topic-comment sentences.

3.1 The Argument Structure Hypothesis

I propose an argument structure hypothesis for the postpositional marker *wa/nun*. The notion of argument structure, basically the internal structure of a verb, has shed much light in explaining facts of sentence syntax. I argue that the postpositional marker *nun/wa* is basically a marker for PRESUPPOSITION and has an argument structure that will account for the behavior of the marker within and beyond sentence level.

Following current work in lexical semantics, I assume that a lexical item has an argument structure. The argument structure for a lexical item means an unordered, labelled listing of the arguments that a lexical item can have (cf. Williams 1980, 1981; Marantz 1984; di Sciullo and Williams 1987; Belletti and Rizzi 1988). Listed labels are called *thematic relations* such as Actor, Theme, Goal, or Source (these labels were proposed first by Gruber 1965).⁴ For example, the argument structure of the verb *hit* can be represented in the following way:

(7) hit: (Actor, Theme)

Furthermore, Williams (1981) proposes that one of those arguments is distinguished from the rest as being the external argument, the special status of which is indicated by underlining. The external argument of a lexical item corresponds to the NP of which the

⁴ According to Jackendoff (1972), the term *thematic relations* is due to Richard Stanley. *Actor/Agent* is the NP identified by a semantic reading which attributes to the NP will or volition toward the action expressed by the sentence (e.g., *John* in *John deliberately rolled down the hill*). Thus, only animate NPs can function as Agent. Therefore, the thematic relation *Agent* should not be conflated with the feature [+agentive] which indicates the instigator of action. *Theme* is the NP, understood as undergoing the motion (e.g., *the book* in *Harry gave the book away*) or the NP whose location is asserted (e.g., *the book* in *Herman kept the book on the shelf*). *Source* and *Goal* are the thematic relations involved with verbs of motion and these are expressed usually with a PP. For example, *the dump* and *the house* are the Source and the Goal respectively in *John rolled the rock from the dump to the house*.

major projection of that lexical item is predicated. As such, the external argument corresponds in some respects to *subject* but not in a grammatical sense.⁵ Bresnan (1972) has shown that *seems* cannot have a “subject”:

- (8) a. * That John is here seems.
b. * John’s presence seems.

This can be indicated by giving *seem* an argument structure in which nothing is underlined:

- (9) seem: (Theme, Goal)⁶

Some verbs have only external argument. Thus, the argument structure of *smile* can be represented in the following way:

- (10) smile: (Actor)

The examples in (8), (9), and (10) illustrate the notion of argument structure and they also indicate two important aspects of argument structure: (i) Lexical items can differ in argument structure; (ii) In order for the sentence to be grammatical, all of the arguments in the lexical item must be saturated.

The notion “argument of” is a relation, specifically a theta relation between a verb and a noun phrase.⁷ Thus, the argument structure of a lexical item represents a complex of

⁵ Verbs like unaccusatives have surface subjects but no external arguments underlying. (I owe this point to Larry Horn.)

⁶ John, in *John seems to be here*, is the theme which has been externalized.

⁷ Grimshaw (1990) argues that a class of nouns referred to as *process* or *event nominals* have the ability to project arguments and hence have an argument structure (e.g., *examination* in *The instructor’s examination of the papers took a long time*).

information critical to the syntactic behavior of the lexical item. In what follows, I propose that not just verbs but the postpositional marker *nun* in Korean and *wa* in Japanese, has an argument structure which represents a complex of semantic / pragmatic information, and that the arguments of the marker must be saturated in order for the sentence in which the marker appears to be felicitously interpreted.⁸

I propose that *wa/nun* is fundamentally a marker for PRESUPPOSITION in the sense that it refers anaphorically to the previous information.⁹ In other words, the marker *wa/nun* has an anaphoric nature. Thus, the NP marked with *wa/nun* is referentially defective in the sense that it cannot occur without some type of antecedent, explicit or implicit. It is so because it has the lexical structure of a relational noun, i.e., its grid has two arguments, as in (11):¹⁰

(11) WA ⟨ y, x ⟩

In the case of the Nominative marker *ga*, there is only one argument as in (12).

(12) GA ⟨ y ⟩

The presuppositional nature of the NP marked by *wa* can be explained by its argument structure, as illustrated in (13):

⁸ On this view, other delimiters, such as Japanese *dake* 'only' and Korean *man* 'only' and case markers, also have argument structure.

⁹ The anaphoric account of presupposition is addressed in detail in Section 3.4.6.

¹⁰ This theory of *wa* from an argument structure perspective is inspired by Reinhart and Reuland (1991)'s work on English SELF anaphors.

(13) [NP Ame [GA ⟨ y ⟩]
└──────────┘

(14) [NP Ame [WA ⟨ y, x ⟩]
└──────────┘

The noun *Ame* ‘rain’ in (13) and (14) saturates one argument position in the grid. In the case of (14), however, the NP still contains one unsaturated argument *x*, the second argument of WA.¹¹ It is this missing argument which is responsible for the presuppositional nature of the *wa*-marked phrase. In order for the NP to be felicitously interpreted, the second argument must be saturated by some type of antecedent. The two arguments, *y* and *x*, form a complex of pragmatic information, namely presupposition.

In what follows, I examine each sentence structure in which the marker occurs and explicate the nature of the sentence structure: generic sentences, topic-comment sentences, contrastive sentences, and logophoric sentences (negative sentences are discussed in Chapter 4). In surveying these sentence structures, we observe that the semantics of these structures (at least topic-comment, generic, and denial sentences) can be best represented by a tripartite quantificational structure, because the first constituent of these structures, which is marked by *wa* in Japanese and by *nun* in Korean, is presuppositional and the domain of the restrictor of quantificational structure is presuppositional in nature.

3.2 Generic Sentences

In the history of both languages and linguistics, two distinct phenomena have been referred to as *genericity*. The first is *reference to a kind*—a genus— as exemplified in

¹¹ In Higginbotham (1984), the terms “saturated” and “unsaturated” were used to make a distinction between phrases that denote and those that have one or more open places. In this study, “the argument is saturated” means “the argument is bound by.”

(15). The underlined noun phrase in (15) does not denote or designate some particular potato or group of potatoes, but rather the kind Potato itself.

(Carlson and Pelletier 1995:2)

(15) The Irish economy became dependent upon the potato.

The second phenomenon commonly associated with genericity is that of propositions which do not express specific episodes or isolated facts but instead express an inherent or general property, that is, report a regularity which summarizes groups of particular episodes or facts (cf. Carlson and Pelletier 1995). I shall address the second phenomenon, which involve generic sentences, gnomic sentences, or *characterizing sentences* (Carlson and Pelletier 1995: 3).¹²

Unlike English and many other languages,¹³ generic sentences in Japanese and Korean have some distinctive morpho-syntactic features, which are also shared with topic-comment sentences: (i) The constituent of which general property is asserted is marked by *nun* in Korean and by *wa* in Japanese; (ii) The generic constituent marked by *wanun* in the generic sentence always occurs in sentence-initial position in these languages. These features are illustrated in (16K) and (16J):

¹² The subject of generic sentences (i.e., related constituent: see p.80), of which a general property is asserted, refers to a kind. Thus, the two phenomena involving genericity are not totally independent of each other.

¹³ Greenberg (1998) maintains that the obligatory presence of the pronominal copula in Hebrew nominal predicative sentences is an overt syntactic marker for genericity:
(Greenberg 1998:127)

a. xmaxim *(hem) yerukim
plants 3ms.pl. green
'Plants are green.'

b. ha-xmaxim ha-elu (hem) yerukim
the plants these 3ms.pl. green
'These plants are green.'

(16) K. kaynali-nun ilun pom chel-ey phi-n-ta.
 Forsythia-TOP early spring season-in bloom-PRES-DECL
 ‘Forsythia blooms in early spring.’ (Korean)

J. kuzira-wa in -o funda uta-o utau.
 whales -TOP rhyme-ACC tread-PRF song-ACC sing-IMP
 ‘Whales sing songs that rhyme.’ (Japanese from Matsushita, 1928:713)

Thus, in (16K) the general property of ‘blooming in early spring’ is asserted of the *nun* -marked NP, *kaynali* ‘forsythia’, and in (16J) the general property of ‘singing songs that rhyme’ is asserted of the *wa* -marked NP, *kuzira* ‘whale’. This fact led some researchers to claim that *nun* is basically a Generic Particle (cf. Lee 1989), or to believe that one of the primary functions of *wa* is to mark an NP as generic (For *wa*, cf. Matsushita 1928, Mikami 1963, and Brockett 1991, and for *nun* cf. Ree J.N. 1974, Chay 1976). The question arises: Why does the marker appear in the generic sentences? As mentioned above, the two features (i) and (ii) of generic sentences in Japanese and Korean are shared by topic-comment sentences, which suggests that there may be some kind of common elements between generic sentences and topic-comment sentences.¹⁴ Let us first explore the nature of generic sentences. Observe the following sentences:

(17) a. Snakes are reptiles.
 b. Snakes are in my garden.

(18) a. Snow is white.
 b. Snow is falling.

¹⁴ Kiss (1998) proposes that generic bare plurals and topicalized NPs are common in that both are [+specific].

- (19) a. John smokes.
 b. John is smoking a cigar in the hallway.

While the (b) sentences give an ‘episodic’ (transitory, time-dependent, non-dispositional) reading, the (a) sentences invariably give a ‘gnomic’ (habitual or generic) reading. What fundamental differences lie between these two types of readings? Researchers agree that there is a difference in logical form between (a) sentences and (b) sentences: the (b) sentences should involve explicit existential quantification. That is, in the (b) sentences, the whole sentence is within the scope of existential assertion.

Having observed the difficulties faced by earlier semantic analyses of generic sentences, which postulate generalization operators which change a particular predicate to a characterizing one (cf. Lawler 1972; Dahl 1975; and Carlson 1977a, 1977b),¹⁵ Carlson (1989) concludes that genericity is inherently a relational phenomenon. In the relational analysis, generic sentences require TWO elements to be related to one another in order to have a complete generic interpretation: the first element is a non-generically interpreted matrix sentence or predicate containing the main verb of the sentence; the other element, which he calls “the related constituent,” is required to complete the generic interpretation. In *Dogs bark*, for instance, we relate the property of barking to the related constituent, *dogs*.

Recent studies show that the semantics of generic sentences can be best represented by the tripartite structure of logical forms, in which the semantic material is partitioned into two parts, Restrictor and Nuclear Scope (cf. Heim 1982; Kamp 1981; Gerstner and Krifka 1987; Krifka 1987; Diesing 1988; Hajicová, Partee, and Sgall 1998).¹⁶ The idea of the neo-

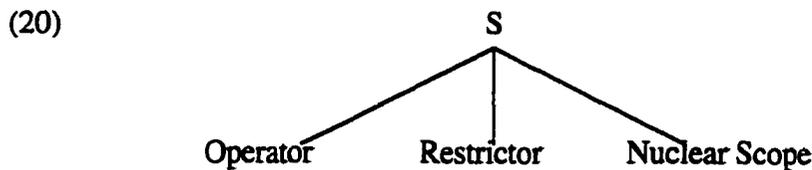
¹⁵ If **Gn** is this type of operator, ‘John smokes’ is formalized as the following:

Gn (smoke) (John)

¹⁶ The terminology of tripartite structures is used by Heim (1982) to represent what the D-quantification (for determiner quantifiers, as in *Most quadratic equations have two*

quantificational analysis of generic sentences comes from the Discourse Representation Theory of Heim (1982) and Kamp (1981). In this theory, the tripartite structure of logical forms is partitioned into Restrictor and Nuclear Scope with an operator relating one to the other. Indefinites are interpreted as open formulae introducing free variables, which are bound by the operator. If the operator is absent, the entire sentence is existentially closed.

If the operator is present, then semantic partition occurs. The generalized picture of tripartite structure is as in (20):¹⁷



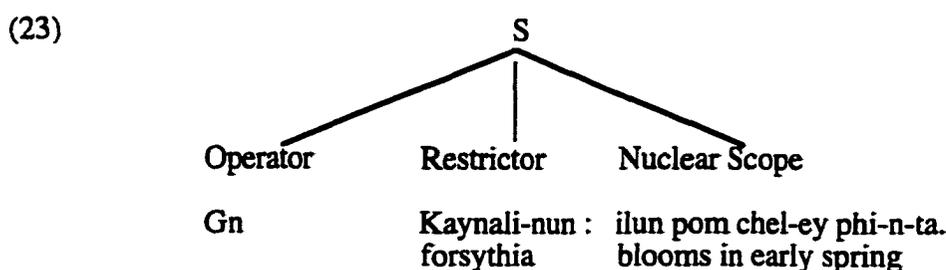
Thus, the semantics of (21a) and (21b) are represented as (22a) and (22b) respectively:

- (21) a. Firemen are available.
 b. Firemen are altruistic.
- (22) a. $\exists x [x \text{ is a fireman} \wedge x \text{ is available}]$
 b. GEN $x [x \text{ is a fireman}] [x \text{ is altruistic}]$

different solutions) and A-quantification (for adverbial quantifiers, as in *A quadratic equation usually has two different solutions*) have in common.

¹⁷ In Brockett (1991), the tripartite structure exists at LF, which is the phrase marker derived from S-structure by applications of “Move- α ” and he claims that GRC (Generically Related Constituent) raising takes place at S-structure as well as at LF in Japanese, and that the landing site for this movement is SPEC of CP. While I agree with the idea that the logical form of generic sentences can be represented by the tripartite quantificational structure, I do not agree with the details of his movement hypothesis. The difficulties that this movement hypothesis faces are addressed in Chapter 2.

The relational analysis of generic sentences which requires the separation and relation of two elements fits well into the approach positing a tripartite structure which divides the semantic material into Restrictor and Nuclear Scope with an operator relating the two. Following this line of analysis, I assume that the related constituent occurs in the Restrictor, a non-generically interpreted matrix sentence / predicate, in the Nuclear Scope. Thus, the tripartite structure in (23) below gives an approximate analysis of the semantics of sentence (16K):



This much is not a new idea. In the following discussion we will be concerned with the nature of the correlation between the restrictor and the related constituent on the one hand, and the postpositional marker and the restrictor on the other. This correlation, I claim, is grammaticalized in Japanese and Korean.

Carlson (1989) points out that a crucial ingredient in the interpretation of generic sentences is the INTENSIONALITY of the related constituent. In English, sentences like (24) observed by Carlson (1989) show ambiguity between two readings: On the preferred (i) interpretation, the indefinite subject NP is assigned an existential construal, and the definite object is the related constituent; On the less preferred (ii) interpretation, the indefinite subject receives a generic construal.

(24) A computer computes the daily weather forecast.

On the preferred interpretation, where the sentence (24) tells us how the daily weather forecast is figured out, “the daily weather forecast” requires an intensional interpretation. Its meaning cannot be understood as the reference of the present weather forecast, e.g., the one appearing in today’s newspaper.¹⁸ As mentioned before, the generically related constituent, which is intensional, occurs in initial position marked with *wa* in Japanese and *nun* in Korean as illustrated in (25J) and (25K) respectively:

(25) J. mainiti-no tenki yohoo-wa konpyuuta-ga uti-dasu.
daily-GEN weather forecast-TOP computer-NOM print-out-IMP.

‘A computer computes the daily weather forecast.’

K. mayil-uy ilki yeypo-nun khomphyutha-ka ccik-nun-ta.
daily-GEN weather forecast-TOP computer-NOM print-PRES-DECL

‘A computer computes the daily weather forecast.’

On the less preferred interpretation, in which *mainiti-no tenki yohoo-o uti-dasu* ‘printing out daily weather forecasts’ is asserted as a general property about computers, the indefinite subject NP, *a computer*, requires intensionality and it occurs in sentence-initial position marked with *wa* in Japanese and *nun* in Korean:

(26) J. konpyuuta-wa mainiti-no tenki yohoo-o uti-dasu.
computer- TOP daily- GEN weather forecast-ACC print

K. khomphyutha-nun mayil-uy ilki yeypo-lul ccik-nun-ta.
computer- TOP daily- GEN weather forecast-ACC print

‘A computer computes the daily weather forecast.’ (for both J and K)

¹⁸ For overviews and different approaches for generics, see Carlson and Pelletier (1995). See also Schubert and Pelletier (1989), which characterizes one of the most salient features of habituals and generics as their being reliant on an “ensemble of cases.”

The extensional / intensional distinction is also found in clausal adverbials. A temporal *when* clause can have two interpretations: On the one hand, it can point to a single instance as in (27):

(27) I was watching television, when suddenly the lights went out.

On the other hand, it can mean *whenever* as in (28) and (29):

(28) I drink ginger ale when I feel sick.

(29) When the lights go out, call the superintendent.

It has been reported that some languages, such as Scandinavian, formally distinguish these two senses of *when* clauses (Carlson 1989:183). In Korean, this temporal / atemporal distinction of *when* clause is indicated by the absence and the presence of the marker *nun* as illustrated in (30a) and (30b):

(30) a. pul-i naka-ess-ul-ttay na-nun chayk-ul ilk-ko iss-ess-ta.
light-NOM go out-PAST-MOD-when I-TOP book-ACC was reading

‘I was reading a book, when the lights went out.’

b. pul-i naka-ss-ul-ttay-nun kwanli.in-ul pulle-la.
light-NOM go out- PAST-MOD-when-TOP superintendent-ACC call-IMPR

‘When(ever) the lights go out, call the superintendent.’

In (30a), *-ttay* ‘when’ clause is interpreted extensionally, referring to a single token instance, while in (30b), *-ttay* ‘when’ clause, which is marked by *nun*, is interpreted intensionally meaning ‘whenever’.¹⁹ Brockett (1991:45) also discusses the significant

¹⁹ A single token instance *-ttay* clause can be topicalized and be marked with *nun* as in the following:

changes of the meaning of the sentence that *wa*-marking brings to *ni*-temporal adjuncts in Japanese: “In habitual sentences,²⁰ *wa*-marking induces a construal in which the temporal adjunct seems to quantify universally over occasions.” This is illustrated by the difference in meaning between (31), where the temporal phrase headed by *toki ni* is marked by *wa*, and (32), where it is not:

(Brockett 1991: 46-47)

- (31) beegeru-o kau toki-ni, Nyuu Yooku Taimuzu-o kai-masu
 bagel-ACC buy-IMP time-at New York Times-ACC buy-IMP
 ‘I buy the New York Times when I buy bagels.’
- (32) beegeru-o kau toki-ni-wa, Nyuu Yooku Taimuzu-o kai-masu
 bagel-ACC buy-IMP time-at-TOP New York Times-ACC buy-IMP
 ‘When(ever) I buy bagels, I buy the New York Times.’

On the habitual reading of (31), the sentence is interpreted as identifying occasions when the speaker purchases the New York Times; the speaker asserts that he buys the newspaper on occasions when he buys bagels, but does not imply that every act of bagel buying is accompanied by an act of buying the newspaper. Thus, the temporal phrase *beegeru-o kau toki-ni* is in the scope of assertion. In other words, it is in the existential closure. In (32), however, *wa*-marking induces a universal reading roughly ‘every occasion on which I buy

-
- (1) uysa-ka tochakhay-ess-ul-ttay-nun, imi ku ai-ka swum-ul
 doctor-NOM arrive-PAST-when-TOP already the-child-NOM breath-ACC
 ketwu-n-hwu i-ess-ta.
 stop after be-PAST-DECL

‘When the doctor arrived, the child had already stopped breathing.’

Therefore, *-ttay* ‘when’ clause marked with *nun* can be either atemporal (i.e., intensional) clause or single token instance which is topicalized.

²⁰ For present purposes, habitual sentences will be included within the broad purview of generic sentences.

bagels is an occasion when I buy the *New York Times*'. Thus, *wa*-marking is necessary in uttering a rule-like statement, which implies 'whenever, on every occasion that' :

(Martin: 1975:730)

- (33) kokka-o utau toki-ni-wa kiritu simasu.
 anthem-ACC sing-IMP time-DAT-TOP stand do-IMP
 'When (ever) we sing the national anthem, we stand up.'

Stump (1985) distinguishes weak vs. strong adjuncts: Weak adjuncts, such as that in (34), are interpreted as the antecedent of an implicit conditional associated with the main clause while strong adjuncts, such as that in (35), are interpreted as if conjoined to the main clause:

- (34) Talking to his parents, John usually asks for money.
 (35) Noticing an error in the analysis, the student raised her hand.

In (34), there is a Quantificational operator in the main clause because it has a habitual reading. In other words, the adjunct in (34) occurs in the restrictor, whereas in (35) all the material in the sentence including the adjunct is taken as part of the nuclear scope. The corresponding Korean sentences, (36) and (37) below, clearly show the distinction between (34) and (35) by the presence and absence of the marker *nun*:

- (36) pumo-hanthey yeyki hal ttay nun, pothong John-i ton-i philyo hal ttay-ita.
 parents-to talk time -TOP usually John-NOM money-NOM need time-is
 'The times that John talks to his parents is when he needs money.'
 (37) punsek-ey chak.o-ka iss-um-ul palkyenha-ko ku haksaying-un son-ul tul-ess-ta.
 analysis-in error-NOM be-ACC discover-and the student-TOP hand-ACC raised
 'Noticing an error in the analysis, the student raised her hand.'

Therefore, the basic distinction between weak vs. strong adjuncts is the distinction between intensional vs. extensional.

It is the intensionality of the subject of the generic sentence that requires the generic subject to occur in the restrictor, which is separated from the scope of assertion, because the intensional subject of generic sentences is presuppositional. What is meant by ‘presuppositional’ is that the generic subject should be known or uncontroversially acceptable (cf. Lewis 1979 on accommodation) by the discourse participants. Rooth (1985) argues that the principal contribution of focus structure is a set of alternatives: The corresponding existential presupposition can be derived as the union of all the alternatives in the given set. In discussing a range of focus-sensitive operators, Partee (1991) relates “topic” to Rooth’s remarks about focus structure: What “topic” and “focus structure” have in common is that “topic and focus-frame establish a set of alternatives having some things in common. In their discourse functions, that much should be known or uncontroversially acceptable by the discourse participants” (Partee 1991:164). The subject of generic sentences is presuppositional by virtue of its being intensional; that is, in their discourse functions, the subject of generic sentences should be known or uncontroversially acceptable by the discourse participants because what the generic subject NP refers to is a kind and not a specific individual or object. In this sense, the related constituent (i.e., the subject of generic sentences) is presuppositional,²¹ and therefore it must occur in the restrictor. Because the related constituent of the generic sentences is presuppositional, it is marked with *nun* in Korean and *wa* in Japanese.

²¹ In discussing the distinction between generic bare plurals and existential bare plurals, Kiss (1998) proposes that whereas generic plurals are [+specific], existential plurals are [-specific]. The notion of specificity is defined in Enç (1991) as follows: An NP is specific if its referent represents a subset of a referent already present in the domain of discourse; and it is [-specific] otherwise. A definite NP, whose referent always bears an identity relation to a referent already present in the domain of discourse, is necessarily [+specific]. An indefinite NP, on the other hand, is only specific if it has a partitive reading. This notion of specificity is very close to “presuppositionality,” defined in terms of anaphoricity in this study.

The correlation of the presuppositional material and the marker *nun/wa* is also revealed by the following: As an example of the probable relatedness of the focus sensitivity of modals, Partee (1991:169) offers a sign in the London underground saying “Dogs must be carried” which Halliday (1970) first notes and discusses in terms of a hypothetical hapless character who sees the sign and is worried because he has no dog. The character is presumably reading the sign with focus on *dogs* and interpreting it as represented roughly in (38b) rather than as the presumably intended (38a):

- (38) a. Dogs must be CARRIED
 MUST (dog (x) & here (x), x is carried)
- b. DOGS must be carried.
 MUST (here (e), a dog or dogs is/are carried at e)

In Korean and Japanese, however, there is no ambiguity,²² and consequently no possibility of a hypothetical hapless character, because whether *dogs* is inside or outside the focus is expressed by the Accusative marker *lul* vs. *nun* in Korean and the Accusative marker *o* vs. *wa* in Japanese. In (38a) *dogs* is presupposed and therefore it must be marked with *nun* in Korean and *wa* in Japanese as shown in (39a) and (40a), while in (38b) *dogs* is inside the focus and therefore it must be marked with the Accusative marker as illustrated in (39b) and (40b):

- (39) a. kay-nun an-ko ka-ya ha-m.
 dog-TOP hold-and go-must
 ‘Dogs must be CARRIED.’
- b. kay-lul an-ko ka-ya ha-m.
 dog-ACC hold-and go-must
 ‘DOGS must be carried.’

²² There is no ambiguity in spoken English because the distinction is marked by a stress and intonation.

- (40) a. inu-wa kakae -nakereba naranai.
dog-TOP hold must
'Dogs must be CARRIED.'
- b. inu-o kakae -nakereba naranai.
dog-ACC hold must
'DOGS must be carried.'

Another piece of evidence for the correlation between presupposition and the marker *num/wa* is provided by the following contrast between the “cardinality” interpretation and “quantificational” interpretation of indefinite noun phrases in Japanese and Korean. In describing the analogy between Brentano’s two modes of judgment (i.e.,thetic / categorical judgments) and the tripartite structure of quantificational operator representations, Ladusaw (1994) discusses Milsark’s distinction between strong vs. weak NPs: Milsark (1974) proposed a two-way distinction in interpretations of determiner phrases, a two way classification of one-place predicates, and a generalization about their ability to combine. In brief, determiner phrases can be given a “cardinality” interpretation or a true “quantificational” interpretation. The distinction between the two construals is illustrated by a subtle ambiguity in (41) and (42):

- (41) Some unicorns entered the garden.
- (42) Many people were at the party.

Milsark says that “both these examples show an ambiguity in the interpretation of their subject NP. Thus [(41)] can mean either that an indefinite number of unicorns entered or that some of the unicorns entered, but others, presumably, remained outside. Similarly, [(42)] can mean either that the party had rather a lot of people at it or that it is true of many people, as opposed, one suspects, to others, that they were at the party” (1974:199).

When we put these sentences into Korean, the two construals are distinguished by the presence and absence of the marker *nun*. (43a) is a Korean sentence with a “cardinality” interpretation on which an indefinite number of unicorns entered the garden, whereas (43b) is a sentence with a “quantificational” interpretation which presupposes a group of unicorns, of which some entered the garden but others didn’t:

- (43) a. *myech mali - uy yunikhon-i cengwen-ulo tuleka-ss-ta.*
 some counter of unicorn-NOM garden into entered
 ‘Some unicorns entered the garden.’
- b. *myech mali-uy yunikhon-un cengwen-ulo tuleka-ss-ta.*
 some counter of unicorn-TOP garden into entered
 ‘Some unicorns entered the garden.’

In the literature it has been often mentioned that indefinite NPs cannot be marked with *nun*. However, observe the following sentence:²³

- (44) a. *wensungi-ka salam-uy cosang i-ni?*
 monkey -NOM man-of ancestor is-Q
 ‘Are monkeys men’s ancestor?’
- b. *etten salam-tul-un kulehkey sayngkak hay*
 some people-PL-TOP that way think
 ‘Some people think that way.’

Sentences like (44b) pose difficulties to the claim that *nun* represents “old information” or the claim that the NP marked by *nun* must be definite. The sentence (44b) means that it is true of some people, as opposed to others, that they think monkeys are the ancestor of

²³ Sohn (1980) presents this example to claim that *nun* has nothing to do with “old information”: its basic meaning is “contrast.”

human beings. Examples like (43b) and (44b) clearly indicate that the presuppositionality of “quantificational” indefinite requires the marker *nun*.

The marker *wa* in Japanese behaves the same in this respect. Kuno (1972:270) presents the sentences in (45) and (46) claiming that the NP marked by *wa* must be generic or anaphoric, unless it is contrasted: In (45) *oozei no hito* ‘many people’ is neither generic nor anaphoric, but it is marked by *wa*, hence ungrammatical, whereas in (46) *oozei no hito* is contrasted with *omosiroi hito* ‘interesting people’, hence grammatical.

- (45) * oozei no hito-wa paati ni kimasita [nongeneric, nonanaphoric]
many people party to came

‘Many people came to the party.’

- (46) oozei no hito-wa paati ni kimasita ga, omosiroi hito-wa
many people party to came but interesting people

hitori mo kimasen desita. [contrasted]
one person even didn’t come

‘Many people came to the party, but not a single interesting person came.’

However, observe the Japanese sentences corresponding to (42):²⁴

- (47) a. ooku no hito-ga paati ni imasita.
many of people-NOM party at were

‘There were many people at the party.’

- b. ooku no hito-wa paati ni imasita.
many of people-TOP party at were

‘Many people were at the the party.’

²⁴ Probably due to some idiosyncratic nature of the word, *oozei*, which means the same as *ooku* ‘many’, is not accepted by Japanese native speakers: * *Oozei no hito wa parti ni imasita*. I think that the contrast between *ooku no hito ga* vs. *ooku no hito wa* serves the present purpose well.

(47a) gives a “cardinality” reading on which the party had rather a lot of people at it, while (47b) gives a “quantificational” reading on which it is true of many people, as opposed to others, that they were at the party. In (47b) *ooku no hito* ‘many people’ is neither anaphoric nor generic, and yet it is marked by *wa*. What makes the sentence felicitous is the presuppositionality of *ooku no hito* in (47b), which has an implicit contrast.

Having established the correlation between presupposition and the marker *wa/nun*, the question of interest now is how the correlation is related to the argument structure of the marker. The related constituent of generic sentences is presuppositional by virtue of its being intensional, and the postpositional marker has two arguments, *y* and *x*. The first argument *y* is saturated by the noun to which the marker is attached; the head noun of an NP (such as *a whale* for example) can saturate one argument (which expresses the fact that the head noun *whale* can denote each of the various whales of the world) and the second argument of the marker *x* is saturated by INTENSIONALITY of the related constituent. In (48), the related constituent *kuzira* ‘whale’, which refers to a kind, not to a specific whale, occurs in the Restrictor and requires an intensional interpretation. Therefore, the NP that occurs in the related constituent has the feature INTENSIONALITY:

(Matsushita 1928: 713)

- (48) J. *kuzira-wa* *in -o* *hunda* *uta-o* *utau.*
 whales-TOP rhyme-ACC tread-PRF song-ACC sing-IMP
 ‘Whales sing songs that rhyme.’

In contrast to this, an extensional NP is marked by a case marker which has only one argument. Imagine someone seeing a whale in the sea and screaming, “Look, I see a whale.” In this context, *whale* refers to a specific whale and therefore it is extensional and *wa* is not acceptable unless it is interpreted as contrastive. Observe (49):

3.3 Topic-Comment Sentences

Another way the marker *nun* is used is to turn the attention of the hearer to some ACCESSIBLE ENTITY in the discourse and then to assert or question something of that entity. The dialogue in (51) between Speaker A, who is about to depart from the airport, and Speaker B, who came to see Speaker A off at the airport, illustrates this:

(51) A: pappu-si-l-theyntey konghang-kkaci nao-a-cwu-si-ese kamsaha-pni-ta.
 busy-HON-FUT airport-to come out-for me-HON-because thank-HON-DECL

‘Thank you for escorting me to the airport, though you must be very busy.’

B: ilehkey ttena-si-nikka sepsephantey-yo.
 like-this leave-HON-because feel sad

‘Since you are leaving like this, I feel sad.’

kihoy-ka sayngki-myen tto o-sey-yo.
 opportunity-NOM occur-if again come

‘When you have a chance, visit us again.’

thapsung swusok-un kkutnay-si-ess-ci-yo?
 get-on-board procedure-TOP finished

‘You are finished with the baggage-checking, aren’t you?’

A’: ney. icyey tha-ki-man ha-myen toypnita.
 Yes. now get-on -only do-if is alright

tochakha-nun taylo phyenci ha-kess-supni-ta.
 arrive-as soon as letter write-will-HON-DECL

‘Yes. All I have to do is to get on the plane. As soon as I arrive, I will write you a letter.’

In (51B), Speaker B turns the attention of Speaker A to *thapsung swusok* ‘on board procedure’ and asks Speaker A whether he has done it. *Thapsung swusok* ‘on board procedure’ here is an accessible entity even though it was not mentioned before because the

situation is such that the schema is the airport and the listener will soon get on (cf. Prince 1981, 1992 on inferred entities and evoked entities). Japanese *wa* functions in an identical manner: In (52), which is a Japanese sentence corresponding to (51), *toozyoo tetuzuki* ‘on board procedure’ is marked with *wa* as an accessible entity and the speaker asks whether the hearer has finished with it. In (53), *kono kompyuta* ‘this computer’ is marked with *wa* as an accessible entity²⁵ to which the speaker wants to draw the hearer’s attention, and the speaker asserts that his/her mother bought it last year:

(52) A: o-isogasii-tokoro-o kuukoo-made miokuri-ni kite
 HON-busy-time-ACC airport-to send off-for-come
 kudasatte (doomo) arigatoo gozaimasu.
 for (me) (very) thank you HON

‘Thank you for escorting me to the airport even in your busy time.’

B: okaeri ni narareru no de samisiku narimasu.
 returning become because feel lonely become

‘Since you are leaving, I feel sad.’

kikai-ga are-ba mata okosi kudasai
 opportunity -NOM exist-if again come back please

‘When you have a chance, visit us again.’

toozyoo-tetuzuki-wa osumi-ni narare masita-ka?
 on board procedure-TOP finish-HON PAST-Q

‘You are finished with baggage-checking, aren’t you?’

A’: hai, ato wa hikooki ni noru dake desu.
 Yes. later air plane to ride only is

‘Yes. All I have to do now is to get on board.’

²⁵ *kono kompyuta* here is accessible because it is present, but not all accessible entities are necessarily marked by *wa*.

- (53) kono kompyuta-wa kyonen haha-ga kaite kuremasita.
 this computer-TOP last year mother-NOM bought for me
 ‘(As for) this computer, my mother bought it for me last year.’

This type of use has been described as the “thematic” use of *nun* and of *wa*. Since the term “theme” or “topic,” however, has been used in the literature with a multiplicity of denotations, and the pragmatic notion of “aboutness,” which is generally considered as the core notion of topic (i.e., what the sentence is about) captures diverse types of topic-like elements in the sentence, we must make it clear what type of topic the “thematic” use of the marker is for.

The function mentioned above—to turn the attention of the hearer to some accessible entity—reminds us of what Reinhart (1981: 80) suggests about sentence topics: that is, signals to the listener telling how to access the entry and classify the new proposition under that entry. To use her metaphor, a topic represents a library catalogue, particularly the subject catalogue under which the oncoming information admitted into the “context set”²⁶ is classified and stored. Regarding the role of *topic of* as pragmatic, Reinhart attempts to capture all the specific properties of sentence topics purely in terms of *pragmatic aboutness*. Incorporating Stalnaker (1978)’s analysis of pragmatic assertion, Reinhart defines the topic as α , which composes Possible Pragmatic Assertions (PPA) together with ϕ , where ϕ denotes the proposition expressed by a given sentence, S: the set of PPA’s of S. ($PPA_{(S)}$) is defined as follows:

- (54) $PPA_{(S)} = \phi$ together with [$\langle \alpha, \phi \rangle$: α is the interpretation of an NP expression in S].

²⁶ Stalnaker (1978) defines the *context set* of a given discourse at a given point as the set of the propositions which are accepted to be true at this point.

However, the syntactic form and the semantic interpretation of a given sentence may restrict the choice of its possible topics. Therefore, the conditions on the selection function is provided as an instruction for the selection of topics as in (55):

(Reinhart 1981:85)

- (55) I. Select $\langle \alpha_j, \phi \rangle$ if α_j is already in your context set, unless:
- 1) ϕ is linked by a semantic connector to the previous proposition in C, or
 - 2) the utterance of S starts a new segment²⁷ in C, in which cases you are free to select any of the members of $PPA_{(S)}$
- II. When permitted by 1) and 2), select $\langle \alpha_j, \phi \rangle$ if α_j is the interpretation of the subject expression of S.

However, the above definition of $PPA_{(S)}$ together with Selection Conditions I and II fails to exclude the subject of “presentational” sentences, i.e., sentences that introduce the entrance of a new referent into the scene. As Reinhart mentions, the subject of presentational sentences cannot serve as topic. Consider her example in (56):

- (56) At the same moment, the raucous voice of a steam calliope came whistling in off the river.

(56) is an example of an utterance S which starts a new segment in C. Therefore, we are free to choose any member of the $PPA_{(S)}$. By the Selection Condition II, *the raucous voice of a steam calliope* is the topic expression of S. Or *the river* is the subject if the river is interpreted to be already in the context set. However, neither *the raucous voice* nor *the river* seems to be the topic of the above sentence. Furthermore, Reinhart’s definition of topic does not distinguish the link-type (see below Vallduví 1992) of topic from the continuous topics. Despite these shortcomings, Reinhart’s contribution provides us with

²⁷ Reinhart (1981: 86) simply states that the definition of *segment* awaits much study.

insights in understanding what topichood is. She notes in particular that in choosing an NP as a topic, it must be possible to interpret the proposition expressed in the sentence as a PROPERTY of the individual or the set denoted by the NP.

The type of topic that *nun/wa* is used for is roughly equivalent to what Vallduví (1992) calls 'LINK'. In Vallduví's view of information packaging, there is a level of representation called INFORMATION STRUCTURE. On this level, the sentence is informationally articulated into a trinomial hierarchical structure consisting of the FOCUS and the GROUND, while the latter is further divided into the LINK and the TAIL:

$$(57) \quad \begin{array}{l} S = \{ \text{FOCUS, GROUND} \} \\ \text{GROUND} = \{ \text{LINK, TAIL} \} \end{array}$$

The link, which appears in sentence-initial position, is a type of topic. As the term suggests, the link performs the task of "linking up with the object of thought." In other words, the link plays a "referent establishing" or "address pointer" role in the instruction about how the information is stored and retrieved. Thus, Heycock (1993) is correct when she states that if an argument is a link in Japanese, it must be marked with *wa*. However, the suggestion that *wa* itself is a marker for linkhood, which she cautiously leaves open, leads to an ad hoc explanation for other uses of *wa* including its contrastive use. Therefore, the claim that *wa* itself is a marker for linkhood must be rejected.

Three characteristics distinguish the link type of topic from others which also have been called "topic" in the literature.²⁸ Syntactically, the link occurs in sentence-initial position. Logico-semantically, it is not in the same domain of the clause expressing the proposition about its referent: it is outside the scope of assertion because it is presupposed. Discourse-functionally, it plays the address-pointer role or topic referent establishing role:

²⁸ The link type of topic has been called also "shifted" or "new" topic as opposed to continuous topic in the literature.

It directs the hearer's attention to some element about which the speaker asserts or questions something. The three characteristics are closely interconnected and they follow from the logical structure of the link. These issues are dealt with a little later after a brief digression.

There are other sentence elements which also have been called topic in the literature, but are quite different from the link type of topic: "topic" in topic-focus, "open-proposition" in focus / open-proposition, and "theme" in theme-rheme of the functional sentence perspective. In what follows, I will briefly discuss how these types of topic differ from the link.

3.3.1 Topic-Focus

The topic-focus articulation, which is advocated by most present-day Prague School linguists, defines a topic in terms of CONTEXTUAL BOUNDNESS, where "contextually bound" means "accessible in the hearer's memory" (Sgall, Hajičová & Panevová 1986: 179), i.e., activated over a certain threshold in the stock of shared knowledge. Thus, in (58b), the Actor and the Verb *I went* constitute the topic, while the adverbial of direction, *to my mother*, belongs to the focus:

(Sgall, Hajičová & Panevová 1986:188)

- (58) a. What trip did you go on?
 b. I went for the weekend to my MOTHER.
- (59) a. When shall we know what Mary is going to do?
 b. She will decide next WEEK.

In (59b), the topic *She* is uttered without emphasis, because it is the most salient and hence the lowest element in terms of communicative informativeness. This type of topic, which

is often called the weak pronoun (Rigau 1986), differs from the link type of topic in three aspects. First, functionally, it does not play the role of directing the hearer's attention to it. There is no need to do so, because it is already under the hearer's attention. This is supported by the fact that weak pronouns do not even occur on the surface in Japanese and Korean, which allow pro drop freely as shown in Japanese examples (60b), (61b), and a Korean example (62b):

- (60) a. Hanako-wa kinoo katta tana-o nani-ni tukai-masi-ta-ka?
Hanako-TOP yesterday bought shelf-ACC what for use-HON-PAST-Q
'For what did Hanako use the shelf [she] bought yesterday?'
- b. kabin-o oku no ni tsukai-masita.
vase-ACC put -for use-PAST
'(She) put a vase (there).'
- b'. kano zyo-wa kabin-o oku no ni tsukaimasita.
she- TOP vase-ACC put-for used
'She put a vase (there).'
- (61) a. sensyuu anata-wa doko-ni ryokoo si-masita-ka?
last week you-TOP where to travel do-PAST-Q
'Where did you travel last week?'
- b. sensyuu wa haha-no tokoro-e ikimasita.
last week TOP mother 's place to went
'Last week, (I) went to my mother.'
- b'. ? watasi-wa haha-no tokoro-e ikimasita.
I-TOP mother's place to went
'I went to my mother.'

- (62) a. ne cinan cwu-ey eti-ey yehayng ka-ass-ta o-ass-e?
 you last week in where-in travel go-PAST come-PAST-Q
 ‘Where did you travel?’
- b. cinan cwu-ey emeni-hanthey ka-ass-ta o-asse.
 last week-in mother to go-PAST-come-PAST.
 ‘Last week, (I) went to my mother.’
- b’. ? na-nun cinan cwu-eye emeni-hanthey ka-ass-ta o-asse.
 I-TOP last week-in mother-to go-PAST-come-PAST.
 ‘Last week, I went to my mother.’

Given that NP marked by *nun/wa* plays the role of directing the hearer’s attention to it, the unacceptability of (61b’) and (62b’) is naturally accounted for.²⁹ Because the subjects in (61b’) and (62b’) are already under the hearer’s attention, to direct the hearer’s attention to what is already under the hearer’s attention would be redundant. Since in these languages redundant and predictable elements are freely and, in many cases, obligatorily³⁰ deleted, redundancy would result either in unacceptability or in conveying contrastive interpretation, if the circumstances allow the hearer to calculate an implicature (the Q(uality)-based implicature in this case: cf. Grice 1967; Horn 1984, 1989, 1993).³¹

²⁹ As can be seen in (60b’), the undeleted version (i.e. *kano zyo wa*) in Japanese is more acceptable than in Korean. The only difference between (60b’) and (61b’) is that in (60b) the subject is the third person, whereas in (61b’) the subject is the first person.

³⁰ The deletion seems more obligatory in Korean than in Japanese.

³¹ Grice’s Quantity Maxim 1 says, “Make your contribution as informative as is required.” and Horn’s Division of Pragmatic Labor says, “the use of a longer, marked expression in lieu of a shorter and/or less marked expression involving less effort signals that the speaker was not in a position to employ the simpler version felicitously.” The contrastive interpretation here can be accounted as Q(uality)-based implicature: When the briefer and unmarked form, i.e., deleted version is available, the use of the longer, stylistically less natural form, i.e., the undeleted redundant version signals that the speaker is not in a position to use the simpler version felicitously, thereby inducing Q(uality)-based implicature, i.e., a contrastive interpretation.

Second, syntactically, the weak pronoun does not have to occur sentence-initially; it usually occurs where it should occur in the canonical word order of the language. The topic in topic-focus does not have to always occur as a weak pronoun.

Third, while the link type of topic is not in the scope of assertion, the weak pronoun is in the scope of assertion.³² Thus, the link must be distinguished from the topic in the topic-focus articulation.³³ To point out that sentence topic is neither syntactic nor semantic but pragmatic, Reinhart (1981:56) states that either *Max* or *Rosa* can be the topic depending on what questions the sentence (63) answers:

(63) Max saw Rosa yesterday.

Thus, if (63) is uttered as an answer to the question *Who did Max see yesterday?* *Max* will be understood to be the topic. On the other hand, if it answers the question *Has anybody seen Rosa yesterday?* *Rosa* will be the the topic. In both cases, *Max* and *Rosa* are topics in topic-focus (i.e., continuous topic) but not the link.

3.3.2 Focus–Presupposition

In question-answer pairs such as (64a) and (64b), the focus, ‘Mary’ is a new piece of information and the rest of the sentence is knowledge that is shared between the speaker and the hearer:

- (64) a. Who hit John?
b. MARY hit John.

³² See Vallduví (1992:74-5)

³³ However, Japanese and Korean slightly differ with respect to what can be a felicitous link.

For this reason, the open-proposition ‘X hit John’ has often been taken to be “presupposed” and called a “topic” because of its pragmatic status. The pragmatic notion of presupposition can be roughly characterized as something “that is taken for granted in a way that contrasts with asserting it” (Soames 1989: 553). “To assert ϕ is to propose adding the propositional content of ϕ to the common ground, the working set of propositions that constitute the current context. A proposition is presupposed if and only if it is (treated as) non-controversially true in every world within the working context set” (Horn 1996a: 305, paraphrasing Stalnaker 1974). Given this definition, we can easily see that the non-focus part, ‘X hit John’, is not presupposed but simply activated because a case like (65ab) challenges the claim that ‘X hit John’ is presupposed.³⁴

- (65) a. Who hit John?
 b. NOBODY hit John.

Clearly, the non-focus part “hit John” in (65a) and (65b) does not presuppose “someone hit John.” This proposition is simply activated (cf. Chafe 1976, Cruttenden 1986:88, Rochemont 1986, Vallduví 1992, and especially Dryer 1996). In addition to the fact that the open proposition is not presupposed, there are other reasons for not considering the open proposition as topic. Lambrecht (1994:122) presents two reasons: (i) Since the open proposition “X hit John” is semantically incomplete, it cannot be said to have a referent, therefore the asserted proposition cannot be construed as being ABOUT its referent; (ii) since the presupposition cannot be identified with a syntactic constituent, there is no structural element which can be identified as a topic expression.

³⁴ There are many instances in the literature where it has been claimed or assumed that non-focus involves pragmatic presupposition (Clark and Haviland 1977:11, Gundel 1985:97, 1988:41).

Given the nature of the open proposition, it is self-explanatory that the postpositional marker in question in Japanese and Korean, which is used for the topic in sentence-initial position with the topic referent-establishing role, has no relevance with the topic as open proposition.

3.3.3 Theme–Rheme

There are two types of themes: Halliday's theme and Functional Sentence Perspective's theme. Halliday (1967, 1985, 1994) defines theme as 'what is being talked about', 'the element which serves as the point of departure of the message' and 'with which the clause is concerned' (1985: 37). Like Mathesius' (1915) theme, Halliday's theme is the starting point of the message. The criterion of old information, however, does not play a role in Halliday's theme. For Halliday, any element which occurs in sentence-initial position seems to serve as theme, though he says that first position in the clause is not what defines the theme but the means whereby the function of theme is realized (1985: 38). Thus, although he recognizes them as marked themes, the underlined elements in the following sentences are the themes for him:

(Halliday 1985: 42–48)

- (66) No one seemed to notice the writing on the wall.
- (67) A loaf of bread is what we chiefly need.
- (68) Who killed Cock Robin?
- (69) Did John win?

Halliday (1985) cites the marker *wa* in Japanese as a thematic particle by which the theme is announced. However, given his notion of theme, *wa* is not a thematic particle. Notice that the element in focus is never marked by *wa* in Japanese even though it occurs in initial position as shown in (70):

- (70) Dare ga / *wa Cock Robin-o korosi-masita-ka?
 who NOM/TOP Cock Robin-ACC kill -PAST- Q
 'Who killed Cock Robin?'

"No one." "a loaf of bread." and "who" in (66), (67), and (68) respectively are all in focus and therefore they cannot be marked by *wa*. The particle *wa* cannot be called a thematic marker in the sense of Halliday's notion of theme, where theme is defined linearly as the point of departure for the expression of the sentence. Nor is the marker *nun*, which in this respect shows a parallel paradigm to *wa*, a thematic marker in Halliday's sense.³⁵

3.3.4 Functional Sentence Perspective Theme: Communicative Dynamism

In the functional sentence perspective of the Prague school, theme or topic is often defined in terms of Communicative Dynamism (CD). What is CD? How does it relate to givenness? How is the marker *nun/wa* defined in terms of CD? These questions are discussed in this section.

In his research on functional sentence perspective, Firbas (1992: 73) says: "a thematic element... will constitute the starting point of the interpretative arrangement" and "a thematic element will be the sentence element carrying the lowest degree of communicative dynamism within the theme." In the functional sentence perspective the theme is the starting point, but unlike Halliday's or Mathesius's theme, it is not position-bound. "The starting point" here refers to the interpretative arrangement, which may or may not coincide with the surface linear order.

The fundamental notion in defining theme in Firbas's version of functional sentence perspective is "communicative dynamism": "an inherent quality of communication [which]

³⁵ Halliday distinguishes "theme" from "topic." For him, "topic" refers to only one particular kind of theme, that is "given." Other researchers differentiate theme from topic differently. In this study, however, topic and theme are not distinguished.

manifests in constant development towards the attainment of a communicative goal.” The distribution of CD within a sentence is said to be determined by four interacting factors: linear modification, the contextual factor, the semantic factor, and (in the spoken language) the intonational factor.

The term “linear modification” refers to an iconic relation between degrees of communicative dynamism and word order. Other things being equal, CD increases from the beginning to the end of a sentence. However, the distribution of degrees of CD is not invariably signalled by the sentence linearity. There are circumstances under which linear modification is overridden by three other factors — the contextual, the semantic and in the spoken language, also the intonational .

The contextual factor involves “retrievability / irretrievability” from the immediately relevant context. Retrievable information is termed “context-dependent,” irretrievable information, “context-independent.” The distinction is essentially that which has been characterized elsewhere by the terms “given” and “new.” As Firbas himself notes, the notion, “context-dependent” is not equal to GIVEN_s (where s = SALIENT) (cf. Prince 1981) in which the referent is in the addressee’s consciousness at the time of the utterance. Nor is it equal to GIVEN_k Shared Knowledge / Assumed familiarity,³⁶ or pragmatically presupposed. In describing the difference between the notion of “context-dependence” and the notion of “contextual boundness,” which was used as an operational criterion by another camp of the Praguean school, Firbas (1992: 38-39) notes:

The determination of context dependence or independence is based on an enquiry into the facts of the immediately relevant context, verbal and situational. The determination of contextual boundness is based on an enquiry into the notions that at the moment a sentence is produced and / or perceived are activated from the stock of knowledge shared by the interlocutors.

³⁶ The speaker assumes that the hearer “knows,” or assumes, or can infer a particular thing (but is not necessarily thinking about it) [Clark & Haviland 1977].

What type of givenness is it then? According to Firbas, “evoked entities” (Prince 1981) are context-dependent. They include situationally evoked entities, such as discourse participants like the speaker and listener, or other salient features of the immediate extralinguistic reality, as well as textually evoked entities. For instance, two friends walking along the street see a ferocious dog, which naturally becomes the object of their immediate concern and one says to the other, “I do hope he won’t bite us.” The pronoun *he* expresses a referent that is retrievable from the situational context. This type of pronoun has been termed “model-interpretive anaphora” or “deep anaphora” (Hankamer & Sag 1984). What about the “inferrables” (Prince 1981)? In discussing inferrable items such as *breakfast, lunch, dinner* in association with *restaurant*, Firbas tries to dissociate the concept of “cohesive relationship” (which is identical to the concept of the inferrables in Prince’s terminology) from that of context dependence: cohesive relationship is a wider concept. In other words, the inferrables may or may not be context-dependent depending on how the sentence is put in perspective. For example, in (71) below, *breakfast, lunch, and dinner* express the information towards which the sentence is in perspective: they are the goal (i.e., rheme) of the communication.

- (71) I have been to all three restaurants in that strange place. At the most expensive of them I had breakfast, at the least expensive, dinner, and at a third, with prices just acceptable, lunch.
(Firbas 1992: 34)

The same inferrable items in (72), however, are context-dependent and they are the themes of each sentence, which constitute the starting point of the communication after the following rearrangement of the linear order:

- (72) I have been to all three restaurants in that strange place. Breakfast, I had at the most expensive of them; dinner, at the least expensive; and lunch, at the third, with prices just acceptable.

Is all retrievable information context-dependent? Since Firbas states that the notion of “retrievable” should be equated with that of “context-dependent,” although it sounds tautological, the above question can be rephrased as, “Is all retrievable information retrievable?” or “Is all context-dependent information context-dependent?” Firbas says, in the *but*-sentence of example [(73)]:

- (73) There are three hotels in that place, the Continental, the Grand, and the International, but the one I like most is the Grand.

the information ‘the Grand’ is undoubtedly context-dependent. Nevertheless, the element ‘the Grand’ cannot be regarded as fully context-dependent. This is because it has become a vehicle of additional irretrievable information, that of selection, which predominates. (Firbas 1992: 35)

Firbas calls this the problem of “heterogeneity and the predominant feature” (Firbas 1992: 37). As we have seen, the concept of context-dependence or retrievability as defined by Firbas is very confusing. As a result, the relation of communicative dynamism to context-dependence / independence becomes unclear.

What Firbas calls the problem of heterogeneity stems from his conflation of the PRAGMATIC PROPERTIES with the PRAGMATIC RELATIONS. Lambrecht (1994) distinguishes two kinds of information-structure categories: those indicating the cognitive STATES of the mental representations of discourse referents (e.g., notions like activation, evoked or salient) and those indicating pragmatically construed RELATIONS between propositions and their elements (i.e., topic and focus). Firbas confusingly uses the terms, “context-dependence / retrievability” in two senses: as a pragmatic property (e.g., “the information ‘the Grand’ is undoubtedly context-dependent”) and as a pragmatic relation, i.e., focus (e.g., “the element ‘the Grand’ cannot be regarded as fully context-dependent. This is because it has become a vehicle of irretrievable information”).

Another problem is that all these phenomena involved in CD — linear modification, and its interaction with contextual, semantic, and (in the spoken language) intonational factors — have different effects in different languages. For example, in order to show how the linear modification affects the retrievability, which in turn affects CD, Firbas presents the following contrast between [(74a)] and [(74b)]:

- (74) a. There are three hotels in that place: the Continental, the Grand, and the International. I liked the Continental and the Grand, but I did not like the International.
- b. There are three hotels in that place: the Continental, the Grand and the International. I liked the Continental and the Grand, but the International I did not like at all.

According to Firbas, “the International” in the second sentence in (74a) is context-independent because it has become a vehicle of irretrievable information, i.e., that of selection and / or that of contrast, whereas “the International” in the second sentence in (74b) is context-dependent, because the linear order no longer puts in perspective the second sentence in (74b) towards “the International,” and instead, the information conveyed by “the International” exhausts the list of three hotels.³⁷ Is “the International” in the second sentence in (74a) really irretrievable contextually after two entities out of the three evoked items, “the Continental” and “the Grand,” were declared as what the speaker liked? Contextually, “the International” or its relation with the information of the speaker’s dislike is predictable and hence retrievable in (74a) as well as in (74b). In Korean and Japanese, which are verb-final languages, the distinction between the (a) version and the (b) version does not arise. Since the object precedes the verb in these languages, the difference of the sentence perspective towards the object “the International,” cannot be

³⁷ Firbas seems to have misinterpreted Kuno (1972)’s exhaustive listing. In Kuno (1972) the notion of “exhaustive listing” means ‘x and only x’.

shown by word order as in English but by the choice of the Accusative marker vs. the postpositional marker *wa/nun* after the object. In both (74a) and (74b), however, the object “the International” is evoked, predictable, and contrasted as the last element of the set of three hotels. Therefore, “the International” has to be marked by *nun* in Korean and *wa* in Japanese.

The semantic factor relates to the semantic function of the syntactic constituents of clauses. Two sets of such functions are called “the presentation scale” and “the quality scale.” The presentation scale consists of a “setting,” “presentation,” and “phenomenon,” with increasing CD. Theme in the functional sentence perspective can be regarded as the foundation laying of the message and “rheme,” as the core-constituting: The foundation consists of context-dependent elements as well as context-independent settings and bearers. Furthermore, CD is a graded notion into which all sentence elements fall. The thematic elements carry lower degrees of CD than the non-thematic elements. Thus, in his analysis of a part of a Mansfield text, two adverbials which serve as settings and the subject as a quality bearer are all themes:

- (75) In a steamer chair (Set, Theme), under a manuka tree that grew in the middle of the the front grass patch (Set, Theme), Linda Burnell (Bearer, Theme) dreamed (Transition Proper) the morning (Specifier, Rheme) away (Q, Tr).

To sum, in the theme-rheme analysis of the functional sentence perspective, a crucial factor is communicative dynamism, and it is determined by four interacting factors: linear modification, the contextual factor, the semantic factor, and (in spoken language) the intonational factor. The notion of “aboutness,” the sentence-initial position, and address-pointer role, which are crucial for the link, do not play a leading role in theme-rheme. Thus, it is misleading to call *wa/nun* a thematic marker in the framework of Halliday or that of Functional Sentence Perspective. Having demonstrated that the link is different from the topic in topic-focus, the presupposition in focus-presupposition, and the theme in theme-rheme analyses in the sense of both Halliday and of the functional

sentence perspective, I will now discuss three characteristics of the link in detail: sentence-initial position, presupposition, and the topic referent-establishing role.

3.3.5 Sentence-Initial Position

In *Aspects of the Theory of Syntax* (1965), the notion of sentence topic is defined by Chomsky as the leftmost NP immediately dominated by S in the surface structure. Later on in Chomsky (1977), the earlier notion of topic defined by linear order is modified as a hierarchically determined notion: NP dominated by the highest node.³⁸ Li & Thompson (1976) also adopt the generalization that topics cross-linguistically occupy the leftmost position in a sentence.

Many researchers observe that there is a tendency in many languages to place the topic in initial position or in some position where it will be set off from the rest of the sentence. They argue for the universality of the initial position for the topic on both cognitive and functional grounds. Many arguments they present are intuitively appealing; for example, the view that the topic, which represents the discourse theme, should be introduced first, because speech involves serialization of the information to be communicated (cf. Li & Thompson 1976), or the view that topics come first because they relate thematically to the preceding discourse, while new, focused referents appear later, closer to the subsequent discourse in which they play a part (cf. Hetzron 1975). Fuller and Gundel (1987:9), who analyze speakers of three highly topic-prominent languages (Chinese, Japanese, and Korean) and three relatively less topic-prominent languages (Arabic, Farsi, and Spanish), also state that “the interlanguage data, from speakers of both

³⁸ In Chomsky 1977, Topicalization is analyzed just like Left Dislocation: the NP in the front position is base-generated in both constructions, except that in the Topicalization S is a WH-clause and the WH-item, which was moved, ends up in COMP and later is erased. The inadequacies of this analysis are discussed in Lasnik & Urigagereka (1988).

topic-prominent and non-topic-prominent languages, are characterized by consistent sentence-initial placement of expressions that refer to topics.”

One syntactic movement in English involving sentence-initial position is preposing. Ward (1985) argues that preposing serves two simultaneous discourse functions: (i) It marks the entity represented by the preposed constituent as being anaphorically related to other discourse entities³⁹ via a salient (partially ordered) set relation;⁴⁰ (ii) Preposing involves the instantiation of a salient OPEN PROPOSITION,⁴¹ in the sense of Prince (1981b). Given Ward’s arguments, the first function of preposing clearly supports the view that the initial slot is for the material which relates either thematically or anaphorically to the previous discourse, and is therefore given in some sense. In discussing discourse functions of English inversion, Birner (1994) also proposes that inversion is an information-packaging mechanism which presents information which is more familiar in the discourse before information which is less familiar.⁴² Thus, preposing relatively familiar information into sentence-initial position essentially serves a connecting function by linking prior information with the current utterance.

³⁹ VP preposing is shown to share the first function of preposing, that of marking the preposed constituent as being anaphorically related to the previous discourse, although VP preposing distinguishes itself from other preposing construction in that VP preposing requires that the affirmed or suspended proposition be explicitly evoked in the preceding discourse (cf. Horn 1991b, Ward 1990).

⁴⁰ Posets or partially ordered sets are defined in (163) in Section 3.5.2.2.

⁴¹ An open proposition represents presupposed or backgrounded information, and is obtained by replacing the constituent bearing nuclear accent with a variable in the semantic representation of the sentence (cf. Wilson & Sperber 1979). The element that instantiates the variable of the open proposition constitutes the new information or focus of the utterance.

⁴² In Birner, an inversion is defined as “a sentence in which the logical subject appears in postverbal position while some other, canonically postverbal, constituent appears in clause-initial position” as exemplified in (i) below:

(i). Labor savings are achieved because the crew is put to better use than cleaning belts manually: <also eliminated> is <the expense of buying costly chemicals>.
[WOODEXTRA. August 1988]

These findings support the conclusion in Horn (1986:175). Having observed the correlation of sentence-initial position, topichood, and assumed familiarity (cf. Prince 1981b) in English and French, Horn stipulates the general functional principle as follows:

- (76) The initial slot tends to be reserved for the theme (S-topic), i.e., what the sentence is about, typically material which is GIVEN_f and preferentially material which is either salient (GIVEN_s or presupposed (existent for NPs, true for Ss)).⁴³

With respect to the above principle, however, two points must be noted. First, two types of topic — continuous topics and link-type topics (i.e., shifted topics) — should be distinguished. In examining the cross-linguistic relation between basic word-order type and the position of the topic, Herring (1990) observes that while the shifted topic occurs in pre-verbal position, the continuous topic occurs in post-verbal position in VS languages. She also observes that verb-subject languages tend to order focus (comment) before topic, in contrast with languages of either the SVO or the SOV type. Thus, the generalization is that while the link type of topic universally occurs sentence-initially, the position of continuous topic correlates with word-order type and in pro-drop languages, continuous topic usually does not appear on the surface. Clearly sentence-initial position is a characteristic of the link type of topic.⁴⁴ The link type of topic in Korean occurs in sentence-initial position:

⁴³ GIVEN_f is “referent is familiar to the speaker and the hearer” and GIVE_s is “referent is in the hearer’s consciousness” (cf. Prince 1981).

⁴⁴ There is a phenomenon called “downgrading” in Japanese and Korean, in which an NP marked by a topic marker occurs in non-initial position. This is illustrated in (1), (2), Japanese examples quoted by Saito from Harada (1977), and in (3), a Korean example from a children’s magazine *Sayssak*:

(1) boku wa kono giron-ga itiban settokuteki da to omou.
I-TOP this argument-NOM most persuasive is COMP believe

‘I believe this argument is the most persuasive.’

- (77) Bobby-nun hankwukmal-lul mos ha-n-ta.
 Bobby-TOP Korean-ACC can't do-PRES-DECL
 'Bobby can't speak Korean.'

In investigating the full range of topic structures in Chinese, Liejiong & Langendoen (1985: 20) also state that the topic in Chinese invariably occurs in initial position, as illustrated in (78) and (79): While (78) illustrates "Chinese-style" topic, in which the comment clause may or may not contain an element which is anaphorically related to the element in the topic (79a), its structure in (79b) is an example of another type in which a sentence contains two or more distinct topics. Both examples involve the link type of topic.

-
- (2) kono giron-ga boku wa itiban settokuteki da to omou.
 this argument-NOM I-TOP most persuasive is COMP believe

'I believe this argument is the most persuasive.'

- (3) nemuto engttwungha-n tokkaypi-uy mal-ey
 too non-sense -Modifier monster-of words-at

pupu-nun ki-ka makhi-ess-ta.
 couple-TOP breath-NOM block-PAST-DECL

'At these outrageous words of the monster, the couple was dumbfounded.'

In (2) the topic *boku wa* 'I' is found inside the subordinate clause. The topic is said to be downgraded into the subordinate clause from sentence initial position. However, it is not testable whether the topic *boku wa* 'I' is moved from the initial position or *kono giron-ga* 'this theory' is scrambled to the initial position. For my purposes, it is not necessary to resolve this question. Kuroda (1988) suggests that downgrading is possible even within a simple sentence:

- (4) boku-ga osiete yatta hon'ya-de sensei-ga susumete iru
 I NOM tell bookstore-at teacher-NOM recommend

hon-o Masao-wa kinoo yatto mituketa
 book ACC Masao TOP yesterday finally find

'Masao finally found the book the teacher recommends at the bookstore which I told him about.'

One might say that this phenomenon causes problems for the generalization that a link type of topic occurs in sentence-initial position. Notice, however, that the function of directing the hearer's attention, which is a unique characteristic of the link type of topic, weakens when the topic occurs in non-initial position.

- (78) Zhang jia wō gěi le měige háizi yíjiàn wanjù
 Zhang family I give ASP⁴⁵ every child one toy

‘In the Zhang family, I gave every child a toy.’

- (79) a. Lǐ xiāsheng wō yīwéi nǐ yǐjīng gāosu guo zhéxiē shu tāmen yáo.
 Li Mr. I believe you already tell ASP these book they want

‘Mr. Li, I believe, you have already told that these books, they want.’

- b. [_s Lǐ xiāsheng_i [_s wō yīwéi [_s nǐ yǐjīng gāosu guo _e [_s zhéxiē shu
 [_s tāmen yáo _e]]]].

Another point to note is that the initial position here is not the one defined just in terms of linear order, but the one which is separated from the scope of existential assertion in the manner of the tripartite quantificational structure, which partitions the semantic material into the restrictor and the nuclear scope.⁴⁶ The reason why the initial position must be defined in terms of the scope of assertion is that initial position itself or initial position defined in terms of linear order is not a universally sufficient condition for an element to be the link of the sentence. Focus constituents can freely occur in sentence-initial position. While it is true that the fronted material which occurs in syntactic movements in English such as Preposing, Topicalization, and Left Dislocation involves some kind of linking relation with what has preceded and therefore is GIVEN_f (i.e., Prince’s Assumed familiarity: referent is familiar to the Speaker / Listener), the initial slot is not exclusively reserved for a given item. In numerous SVO languages, a focused element occurs in initial-position. In Kru, an SVO language, the focused element in “it”-type clefts appears in sentence-initial position, followed by a copula functioning as focus marker

⁴⁵ The morpheme *le* is an aspect marker.

⁴⁶ The tripartite structure is discussed in detail in Section 3.3.8.

(Marchese 1983). In Topicalization in English, the item fronted sometimes may be the one contextually most focused: *An utter FOOL, she made me feel* (Quirk et al. 1985).⁴⁷ In Xavante, a Ge language spoken in Mato Grosso, Brazil, new primary information normally occurs before the predicate in a clause: *aro te^h tsub-dza'ra* (rice they winnow-plural 'they are winnowing rice') (cf. Eunice Burgess 1986). Similarly, nominalized clefts (e.g., *The one who was sacrificed was Abraham*) occur more often in reversed order (e.g., *ABRAHAM was the one who was sacrificed*) in Lele (cf. Simons 1982).

In Korean, too, a focused element can appear in initial position through a movement called scrambling. As a result, the topic phrase *wuli-nun* in (80) is not clause-initial:⁴⁸

- (80) a. ilehan salang-lul wuli-nun akaphey-lako ha-n-ta.
 this kind love-ACC we-TOP agape-as call-PRES-DECL
 'This kind of love, we call agape.'

⁴⁷ This type of topicalization is distinguished as Focus Topicalization as opposed to Topic Topicalization (cf. Prince 1981a. cf. also "Y[iddish]-movement" structures).

⁴⁸ The phenomenon in which the focused element precedes the topic can be also found in the following example:

(from 'A story of a wise farmer' in *Sayssak munhak*)

- (1) nemuto engttwungha-n tokkaypi-uy mal-ey
 too nonsensical monster-of words-at
 nongpu-nun ki-ka makhi-ess-upni-ta.
 farmer-TOP breath-NOM be stifled-PAST-Polite-DECL

'At these overly nonsensical words of the monster, the farmer was dumbfounded.'

However, when the focused element precedes the topic, the topic marked with *nun* seems to lose the discourse function of 'shifted topic' i.e., directing the hearer's attention to it. Usually the topic in this case is the person(s) who has been in the discourse all the time, such as "I," "We," or "They." Therefore, the fact that the topic marked with *nun* occurs inside the sentence does not weaken the generalization that Link occurs in sentence-initial position.

Normally a sentence like (80a) occurs in the order of topic-object-verb as in (80b), which corresponds to the basic word order of Korean, SOV, because in (80b) the topic fills the subject gap.⁴⁹

- (80) b. wuli-nun ileha-n salang-lul akaphey-lako ha-n-ta.
 we -TOP this-kind love -ACC agape-as call-PRES-DECL
 ‘We call this kind of love agape.’

Gundel (1985) objects to the claim that the topic is necessarily the first element in the sentence. She provides the following examples as evidence in which the sentence-final noun phrase can be the topic provided that it is given:⁵⁰

- (81) A: What about the proposal?
 B: a. The proposal, Archie rejected it.
 b. Archie rejected it, the proposal.

However, there is a significant difference in pragmatics as well as in syntax between the right-detached topic constituents as in (81Bb) and the left-detached topic constituents as in (81Ba), which always occur in sentence-initial position. As Lambrecht (1994) points out, the right-detached topic constituent requires greater pragmatic salience than the left detached topic, the latter being used mainly for referents whose topic status is not yet established in the discourse context.

⁴⁹ Topic and subject cannot be equated. However, the subject-topic correlation is often postulated as universal. What is meant by SOV order here is that *wuli* ‘we’ is the topic and at the same time it is the agent and it fills the subject gap of the verb *ha-* ‘call’.

⁵⁰ The distressed noun *the proposal* in *Archie rejected [the proposal]*, which can occur as a response to (81A), can also be a non-initial topic. In this case, it is a continuous topic (I owe this point to Larry Horn).

(Lambrecht 1994: 203)

(82) He is a nice guy, your brother.

Thus, in contrast with left-detachment, the lexical topic expression in right detached position cannot indicate a new or a topic shift.⁵¹ That is, the right-detached topic does not have the topic-announcing function, because the topic referent has been already introduced as an unaccented pronominal form (*He* in the case of (82)). In cases like (83) below, the topic referent must be salient in the world of discourse:

(83) What a nice guy, your brother!

Sentences such as (83) can occur only when the topic referent (the listener's brother in the case of (83)) has been talked about, has been the focus of attention in the preceding discourse, or has attracted the speaker's attention in the world the discourse was taking place. The following examples in (84) clearly indicate that while the left-detached position can introduce a new topic which is not salient, the right-detached position cannot:

(84) A: Why do you like horses so much?

B: a. Well, *this one book*, I read it when I was a kid and it really made a lasting impression on me. It was about a really smart horse and I guess I've loved horses ever since.

b. Well, *this one book* I read when I was a kid and ...

(Prince 1985:69)

c. * Well, I read it when I was a kid, *this one book* and ...

⁵¹ German has two sets of personal pronouns in the third person, the set *er, sie, es, sie* and the set *der, die, das, die*, both meaning "he, she, it, they." As a general rule, pronouns of the *er*-series are used when a referent is active and already topical, while those of the *der*-series are used when a referent is active but not yet an established topic (cf. Lambrecht 1994).

To summarize, while the link cross-linguistically occurs in sentence-initial position, the elements referred to as topic in the literature including the continuous topic do not have to occur in sentence-initial position. The above data show how complex the interaction is between form and function, particularly with regard to the problem of sentence topic. On the other hand, they also indicate that there is a great difference among the link type of topic, continuous topic, theme, open-proposition, and right-detached topic, suggesting that these should not be conflated under the rubric of topic, but must be distinguished. In short, crucial for the link type of topic is not the initial position as defined in terms of linear order but the initial position which is set apart from the rest of the sentence in terms of assertion and presupposition.

3.3.6 Presupposition

It has often been mentioned that the topic is “presupposed” or “an element which is part of the presupposed information.” What is presupposition? Since it is difficult in the vast literature to find a consensus about any precise definitional characterization of presupposition, much less one dealing with all presuppositional phenomena, I will briefly summarize semantic, pragmatic, and anaphoric accounts of presupposition in the literature and then define what it means that the link is presupposed in this study.

Presuppositional phenomena have been mainly discussed with regard to singular referring expressions, which presuppose the existence of a presumably unique referent for the subject. The following often quoted sentences epitomize the history of the battle surrounding presupposition and negation (from Aristotle, through Frege and Russell, to Strawson (cf. Horn 1996a)):

(85) Kepler died in misery.

(86) Kepler did not die in misery.

In the semantic model of presuppositional account of singular terms, first offered by Frege (1892), both (85) and its contradictory (86) presuppose that the name *Kepler* denotes something. But this presupposition of the existence of a unique referent for the subject, Frege argues, is not part of the content of the expressions in question, and hence (85) does not entail the existence of Kepler — for otherwise the negation of (85) would not be (86), which preserves the presupposition, but rather the disjunction in (87):

(87) Kepler did not die in misery, or the name Kepler has no reference.

Opposing Frege, Russell incorporates the existential presupposition into the logical form of the sentences with descriptions like *the king of France* as in (88) and (89):

(88) The king of France is bald.

(89) The king of France is not bald.

Thus, (88) emerges as the proposition that there is a unique entity with the property of being king of France and that this entity is bald, i.e., as an existentially quantified conjunction in (88'):

(88') $\exists \chi (K \chi \ \& \ \forall y (Ky \rightarrow y = \chi) \ \& \ B\chi)$

In unpacking its negative counterpart (89), however, two distinct ways are acknowledged. If the description *the king of France* has a wide scope over an internal negation, we get the proposition that there is a unique and hirsute king of France:

(89') $\exists \chi (K \chi \ \& \ \forall y (Ky \rightarrow y = \chi) \ \& \ \sim B\chi)$

This proposition is simply false when France is a republic. In the second reading of (89), however, in which the description *the king of France* falls within the scope of external negation,

(89'') $\sim \exists \chi (K \chi \ \& \ \forall y (Ky \rightarrow y = \chi) \ \& \ B\chi)$

the presupposition that there is a king of France disappears, hence yielding a true proposition when France is a republic.⁵²

Half a century later, Strawson (1950, 1952) removed the existential presupposition again from the assertion of the proposition in Russell's theory of description. For Strawson, someone who utters (88) does commit herself to the existence of a king of France but, contra Russell, she does not assert the existence of a king of France. Rather, (88) — along with its negative counterpart (89) — “implies” or “presupposes” that there is a king of France. If this presupposition is not satisfied (i.e., if there is no King of France), the question of the truth value of (88) or (89) does not arise. Strawson was celebrated for his capturing of the ordinary-language intuition that negation normally leaves the subject intact. For a quarter century following the publication of “On Referring,” three-valued logics in which truth-value gaps are admitted proliferated. Thus, the truth-value gapped logic not only stands against the classical two values of the Aristotelian and Russellian logic, it endorses the semantic ambiguity of negation: internal negation and presupposition-

⁵² This presupposition-cancelling external negation is favored with the appropriate fall-rise intonation contour and rectification (cf. Horn 1985):

The king of France isn't ^ˆBALD — there ISN'T any king of France!

cancelling external negation. This is shown in (100), where # denotes the third or undesignated value.

(100)

	INTERNAL NEGATION	EXTERNAL NEGATION
P	$\neg P$	$- P$
T	F	F
F	T	T
#	#	T

A Strawsonian notion of presupposition can be defined in terms of (internal) negation and an inference rule identified as semantic entailment (Smiley 1960) or necessitation (van Fraassen 1968):

(Horn 1996a: 303)

- (101) (i) $A \Pi\text{-}B$ ("A necessitates B" or "A semantically entails B") if and only if whenever A is true, B is also true.
- (ii) A presupposes B if and only if $A \Pi\text{-}B$ and $\neg A \Pi\text{-}B$.

However, given the existence of sentences like 'The king of France isn't BALD — there ISN'T any king of France!', it became more questionable whether the doctrine of semantic presupposition thus defined could do justice on natural language. Even with Strawson's revised theory, where truth-value gaps arise only when non-denoting singular terms occur in referential positions (typically, as surface subject and / or topic) the semantic approach based on truth-conditional modeling could not survive. Furthermore, the assumed existence of the two propositional negation operators for natural language, internal and external, has been questioned (cf. Atlas 1975, Kempson 1975, Gazdar 1979). Thus, for presuppositional phenomena we have had to turn to a pragmatic rather than a semantic

account. Furthermore, the ambiguity in natural language negation has been proved to be not semantic but pragmatic (cf. Horn 1989).

Within the pragmatic account, first proposed by Stalnaker (1974, 1978) and Karttunen (1974), presuppositions are “restrictions on the common ground, rather than conditions on truth or falsity” (Horn 1996a: 307). The presuppositions of a sentence S “constrain or limit the class of contexts C, relative to which S can be felicitously uttered” (Chierchia 1995: 280). “To presuppose something is to take it for granted in a way that contrasts with asserting it” (Soames 1989: 553). Thus, in presupposing ϕ , S treats ϕ as a non-controversial element in the context of utterance.

(Horn 1996a: 306)

- (102) a. Even Peewee lifted the rock.
 b. Peewee managed to lift the rock.
 c. Peewee lifted the rock.

In (102a) and (102b), while the propositional content (102c) is asserted — it is incremented to the common ground — the presuppositions, i.e., what *even* and *manage to* contribute to the context, are not asserted. They are treated as non-controversial: in the former case that others lifted the rock and that Peewee was the least likely member of this set to have done so, and in the latter that it was relatively difficult for him to lift the rock.

In the '90s, similarities between presuppositions and anaphoric environments have been observed (cf. Van der Sandt 1992, Delin 1992). Within the anaphoric account, presuppositional expressions are anaphors which only differ from pronouns and other semantically less loaded anaphors in that they have more descriptive content and internal structure. In discussing the properties of the It-cleft construction, Delin (1992) says that the proposition that someone left, in *It was John who left*, is treated by speaker and hearer

alike as being **NON-NEGOTIABLE** at the time it appears. Thus, the presupposition in the anaphoric account can be defined as in (103).

(103) NON-NEGOTIABILITY OF PRESUPPOSITION

Presupposition marks information as being non-negotiable in the discourse at the time of utterance.

The source of this non-negotiability is attributed to the fact that the presuppositional information is marked as not having originated at the point of speech. Whatever the previous status of the information is, the point is that the presupposition refers anaphorically to it:

(104) ANAPHORICITY OF PRESUPPOSITION

Presupposition refers anaphorically to the previous information.

The anaphoric nature of presuppositions gives rise to the implication that the information in the presupposition has an antecedent. As already noted, the link is presupposed. The notion of presupposition here, however, is not semantic; it is pragmatic and anaphoric. To be more specific, the link is **PRESUPPOSED** in the following two senses:

- (105) A. The link is outside the scope of assertion.
 B. The link refers anaphorically to the antecedent.

For an element to be presupposed as a link, both (105A) and (105B) should be met because the prior occurrence of an antecedent is not sufficient to guarantee that the NP will be

outside the scope of assertion.⁵³ Two tests — the question test and the negation test — support the claim that the link is outside the scope of assertion.

3.3.6.1 The Question Test

The NP marked with *nun* in initial position cannot be the focus of a question because it cannot occur in the scope of assertion. In (106), the question presupposes that someone serves in a Teaching Assistantship in the Korean course, but what is unknown and what is asserted in the answer is just who.

- (106) a. *nwu-ka* *hankwuk.e* *T.A.-lul* *hay-yo?*
 Who-NOM Korean T.A.-ACC does-HON
 ‘Who does the T.A. work in Korean language course?’
- b. *mistha. Kim-i* *hay-yo.*
 Mr. Kim-NOM does-HON
 ‘Mr. Kim does.’
- c. * *mistha. Kim-un* *hay-yo*
 Mr. Kim-TOP does-HON
 ‘Mr. Kim does.’

In (106b) and (106c), *mistha. Kim* is the focus of the answer and therefore it is what is asserted. In (106c), what is asserted is marked by *nun* and hence unacceptable. The unacceptability of (106c) shows that the NP marked by *nun* in initial position cannot be asserted. The NP marked by *wa* in Japanese behaves in an identical manner:

⁵³ Weak pronoun / continuous topics are old information, therefore it can be said that it has an antecedent. However, weak pronouns are in the scope of assertion (cf. Vallduví 1992).

- (107) a. Dare-ga kankokugo T.A.-o simasu-ka?
 who-NOM Korean language T.A.-ACC do-Q
 'Who does the TA work in Korean language course?'
- b. Kim-san-ga simasu.
 Kim-Mr.-NOM does
 'Mr. Kim does.'
- c. * Kim-san-wa simasu.
 Kim-Mr.-TOP does
 'Mr. Kim does.'

Kies (1988: 57) points out that Topicalized constituents and Left Dislocated (LD) constituents in English are not asserted, but presupposed:

(108) What kind of tea does John most enjoy in the morning?

- (109) a. John can drink English breakfast tea every morning.
 b. ? English breakfast tea John can drink every morning.
 c. * English breakfast tea, John can drink it every morning.

The unacceptability of (109b) and (109c) shows that Topicalized and LD constituents are presupposed in the sense of (105).

3.3.6.2 The Negation Test

It has often been pointed out that the topic falls outside the scope of negation. This is due to the fact that only the constituents in the scope of assertion fall in the scope of negation. The link is outside the scope of assertion and hence outside the scope of negation. Russian provides a piece of concrete evidence for the incompatibility of topic and negation. In discussing the genitive vs. nominative case marking in negative sentences in

Russian, Babby (1980) points out that an NP in a negated sentence can be marked with the genitive case if and only if it is in the scope of negation. Compare the following sentence pairs; the a-sentences are declarative and the b-sentences are existential:

(Babby 1980: 59)

- (110) a. *Vse byli teplo odety I moroz ne cuvstvovalsja.*⁵⁴
 all were warmly dressed and frost (NOM m. sg.) NEG be felt (m. sg.)
 'Everyone was warmly dressed and the frost could not be felt.'
- b. [*Bylo teplo*] *Moroza ne cuvstvovalos'*
 was warm frost (GEN m. sg.) NEG be felt (n. sg.)
 '[It was warm.] No frost was felt (=there was no frost).'

Sentence (110b) is a negative existential sentence: it states that the weather is warm and (therefore) there is no frost. The primary function of the existential sentence *Moroza ne cuvstvovalos'* is to assert that frost is absent at a particular time and in a particular place. In contrast to this, sentence (110a) *moroz ne cuvstvovalsja* is a negative declarative sentence: it presupposes that there is frost and asserts that people do not feel it because they are warmly dressed. The difference between the declarative negative and existential negative sentence can be summarized as follows: A declarative negative sentence presupposes the subject NP and it asserts that this subject does not perform the action or is not in the state denoted by the verb. In contrast, an existential negative sentence asserts that its subject does not exist. Thus, only the subject NP in the negative existential sentences is marked genitive, because it is in the scope of assertion. The subject NP in the negative declarative sentence cannot be marked genitive, because it is presupposed and therefore it is outside the scope of assertion.⁵⁵

⁵⁴ In the original text (Babby 1980: 59) there were hyphens between each word. Since each word in Russian is an independent word, I quote this sentence without hyphen.

⁵⁵ The case of the Nominative vs. topic marking in negative sentences in Japanese and Korean is also a relevant phenomenon with regard to the scope of assertion and negation. This is discussed in Chapter 4.

Topicalized and Left Dislocated constituents in English, which represent the link type of topic, cannot be included in the scope of negation because they are presupposed⁵⁶ as illustrated in (111)-(116) (cf. Kies 1988):

- (111) The pláy, John saw it yésterday.
 (112) As for the pláy, John saw it yésterday.
 (113) Rónald made the hamburgers.
 (114) * It is not the case that the play John saw it yésterday.
 (115) * It is not the case that as for the pláy, John saw it yésterday.
 (116) It is not the case that Rónald made the hamburgers.

To conclude: the link is presupposed in the sense that the link is outside the scope of assertion, and it refers anaphorically to the antecedent (i.e., previous information). The above conclusion is supported by the Korean and Japanese data showing that the NP marked by *nun* / *wa* in initial position cannot be the focus of the question, the Russian data showing that the alternation between the genitive vs. nominative case in negative sentences is sensitive to whether the NP is in the scope of negation, and the English data showing the inability of Topicalized and Left Dislocated NPs to be in the scope of negation and focus.

3.3.7 The Topic Referent Establishing Role and Aboutness

The discourse function of the link is to establish the topic referent, directing the hearer's attention to some entity and announcing that the speaker will assert or question

⁵⁶ Topicalized and LD constituents in English meet all three criteria of the link: They occur in sentence-initial position, they are not asserted, and their function is to establish the topic referent. However, the felicity conditions may differ between the LD and Topicalized NPs in English on the one hand and the link type of topic in Korean and Japanese on the other. This issue is discussed later.

something about that entity. To mark this role the link is singled out by morpho-syntactic and / or prosodic devices such as fronting in languages like English, a special marker in languages like Korean and Japanese, and an intonational phrase boundary in languages like Tzotzil and Jakaltek (cf. Aissen 1992). Continuous topics cannot play this role, because they are the elements which are already under the hearer's attention.

This call-up function is to announce that the speaker will state or question something ABOUT the element which was singled out. Since Mathesius (1915) delineated the sentence into what the speaker wants to speak about (i.e., the topic) and what is to be said about this topic, this vague notion of "aboutness" has been widely accepted as the core characteristic of topic and considered to be primitive. Certainly the topic, and in particular the link is what the sentence is about. However, what does it mean for a proposition to be ABOUT the topic? Even if we exclude discourse topic from the present discussion, it is not obvious what it means for a proposition to be about the topic.⁵⁷ When philosophers are concerned with the distinction between the terms "subject" and "predicate," the "subject" is commonly defined as what a proposition is about. In arguing for a Fregean view in *Subject and Predicate*, for instance, Geach (1985:190) distinguishes *predicable*, *predicate*, *predication*, and *subject* as follows: "A *predicable* is an expression that gives us a proposition ABOUT⁵⁸ something if we attach it to another expression that stands for what we are forming the proposition about; the predicable then becomes a *predicate*, and the other expression becomes its *subject*; I call such a proposition a *predication*." Given this definition of "subject," the "subject" in traditional logic can be equated with topic. However, are they identical? When the question comes to identifying the topic, the above

⁵⁷ For example, the discourse topic of the following sentence is Mr. Morgan's scholarly ability:

Mr. Morgan is a careful researcher and a knowledgeable semiticist, but his originality leaves something to be desired (Reinhart 1981:54).

⁵⁸ **Emphasis is mine.**

definition of aboutness, i.e., what the sentence is about, is too loose an operational criterion in that it can identify as the topic of the sentence more than one element. For example, in a context like (117b ii),

(Vallduví 1992: 35)

- (117) a. Does he want mustard on his broccoli?
 b. i. I don't think so. Thanks. Brown mustard he likes,
 ii. but this yellow stuff he doesn't touch.

the clause in (117bii) is about *this yellow stuff*, while the one just before it is about *brown mustard*. At the same time, each clause is also about *he*. Thus, “aboutness” identifies both *this yellow stuff* and *he* as the topic of the sentence. However, the discourse function of the NPs like *this yellow stuff* is very different from that of the NPs like *he*: the NP *this yellow stuff* ANNOUNCES that it is the topic of the sentence. Even though it is uttered for the first time, the NP *this yellow stuff* is felicitous by its being in the set-relationship with *mustard* which was evoked in the previous sentence. On the other hand, the pronoun *he* in (117bii) has previously been established as the topic. It is continuous, predictable, and hence retrievable, whereas NPs like *this yellow stuff* is new, unpredictable, and irretrievable. NPs like *this yellow stuff* feel like they are directing the hearer’s attention to that element about which the speaker will assert something in the following part of the sentence while NPs like *he* have no such force. To borrow Vallduví’s information packaging theory, NPs like *this yellow stuff* signals the instruction to the hearer, “GO TO THE ADDRESS *this yellow stuff*,” whereas the unstressed pronoun like *he* does not give any instruction, but simply stands there to fill in a grammatical position. And the speaker assumes that the hearer is already at the correct address. Various terms have been used for the topic of the former type: contrastive topic, shifted topic (Herring 1990), new topic, link (Vallduví 1992), or secondary topic (Lambrecht 1994); whereas the topic of the latter type is called continuous topic, unstressed pronoun, weak pronoun, or primary topic (Lambrecht

1994).⁵⁹ Between the two types of topic there is a fundamental distinction syntactically as well as functionally across languages; the former type occurs in sentence-initial position universally, while the latter type occurs in a position canonically assigned by the particular language (cf. Herring 1990). The shifted / contrastive topics are lexical NPs or accented pronouns, whereas continuous topics are usually unaccented pronouns or are elided in pro-drop languages like Korean.

In Strawson (1964), the notion of aboutness is explicated as follows:

Statements, or the pieces of discourse to which they belong, have subjects, not only in the relatively precise sense of logic and grammar, but in a vaguer sense with which I shall associate the words “topic” and “about”... Stating is not a gratuitous and random human activity. We do not, except in social desperation, direct isolated and unconnected pieces of information at each other, but on the contrary intend in general to give or add information about what is a matter of standing current interest or concern. There is a great variety of possible types of answer to the question what the topic of a statement is, what a statement is “about”... and not every such answer excludes every other in a given case (1971:97).

The topic here is seen as “a matter of standing current interest or concern” and statements are normally about what is a matter of standing current interest or concern. As is indicated in Strawson’s remark that “there is great variety of possible types of answer to the question what the topic of a statement is,” this characterization of aboutness also identifies many elements as topics because both continuous and shifted topics can be a matter of standing current interest.

In discussing tests for topicalhood, Reinhart (1981) points out that although *the book* in (118b) is the topic expression of the second sentence by both criteria of aboutness and familiarity, *the book* cannot be topicalized or left-dislocated as shown in (118b’), because

⁵⁹ Keenan and Schiefflin (1976) divide discourse topic into “continuous topic” and “discontinuous topic” which are classified into “collaborating vs. incorporating discourse topic” and “re-introducing vs. introducing discourse topic” respectively. However, these are discourse topics, which are different from the sentence topics which we are now discussing.

Topicalization and Left Dislocation is used to introduce a new or shifted topic, while in the given example, *the book* has already been the topic of the previous sentence:⁶⁰

(Reinhart 1981: 62)

- (118) a. Kracauer's book is probably the most famous ever written on the subject of the cinema.
- b. Of course, many more people are familiar with the book's catchy title than are acquainted with its turgid text (The Village Voice, Oct. 1, 1979:49).
- b'. ? As for this book, many more people are familiar with its catchy title than are acquainted with its text.

The NP *the book* in (118b) is in the scope of assertion of the sentence, because the whole NP *the book's catchy title* is within the focus of the sentence. On the other hand, NPs like *this yellow stuff* in (117), which was fronted, are outside the scope of assertion.

However, the criterion of aboutness identifies both types of NPs as the topic.

We need to distinguish not only the discourse topic from the linguistic constituent of the sentence topic, but also the link from other types of topic, because the link is quite different from others syntactically, pragmatically, and discourse-functionally. As shown from our examination above, the notion of aboutness, including Reinhart's notion of pragmatic aboutness, puts diverse elements of the sentence under the label of topic. In other words, it is analytically too loose to identify the sentence topic of a given sentence definitely, rendering indeterminate the task of deciding just which entity the sentence is about. The link is what the sentence is about. But we need to define the discourse function of the link more concretely as in the following:

⁶⁰ "New topic" here doesn't have to be new in terms of the discourse status. For example, *Paris* and *Berlin* below are not new in terms of the discourse status, but each is established as a new topic for each clause in (b) respectively:

- A: What did you think of Paris and Berlin?
 B: Paris I liked, but Berlin I didn't care for.

(119) DISCOURSE FUNCTION OF THE LINK

It directs the hearer's attention to some element and announces that the speaker will assert or question something about that element.

3.3.8 Logical Representation of the Link

We have seen that the link is different from other types of elements which have been called "topic" in the literature; syntactically it always occurs in sentence-initial position,⁶¹ logico-semantically it is outside the scope of assertion, and discourse-functionally it plays the call-up function defined in (119). These three characteristics are not independent but are closely interconnected. Their mutual interconnectedness can be explained from the logical representation of the link-focus structure.

The link is presupposed in the sense that it refers to some previous information and hence is (assumed by the speaker to be) uncontroversially acceptable by the discourse participants and it is outside the scope of assertion. As such, it goes into the restrictor, which is presuppositional by nature.⁶² Because it has the call-up function (i.e., directing the hearer's attention to some element), it must be something presupposed in the sense of "anaphorical" and "not asserted." Because it is presupposed, it is separated from the core clause. Material which is presupposed and hence detached from the core clause goes into the restrictor of the tripartite structures.⁶³ Since the tripartite structure is a concept of logical

⁶¹ The link occurs in sentence-initial position but not all elements in sentence-initial position are the link. Sentences such as (1) below are linkless sentences.

- (1) a. There were three books on the table.
 b. It is difficult to solve the problem.
 c. Who solved the problem?

⁶² The correlation of restrictor in the tripartite structure and presuppositional material has been discussed in section 3.3 (See also Partee 1991, Bach and Kratzer 1987)

⁶³ It is interesting to note that the early traditional Japanese grammarians employed the terms "emphasis" and "separation" in their studies on *wa*: Toganoi Michitoshi in his *Tenihā abikizuna* (1770) characterizes *wa* as "the letter that has the effect of making judgment emphatic or describing an entity by separating [it from others]," and Fujitani

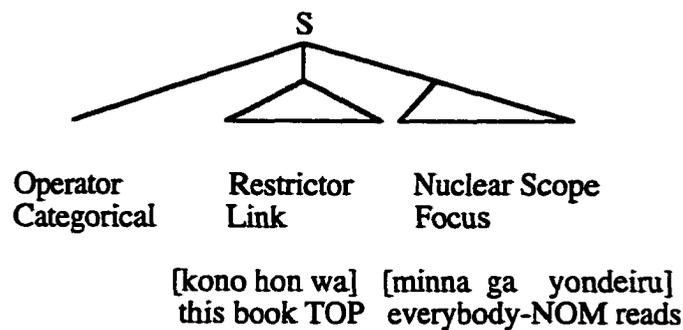
structure at a metalevel, it may not actually represent the syntactic structure of the linguistic structure that can be argued to be correlated with the tripartite structures. But in the case of the link-focus structure, the initial position in which the link occurs is a syntactic mapping of the restrictor.

In discussing reference failure and the truth-value gap theory, Strawson (1964) also addresses the relation of topics and presuppositions. The notion of presupposition in Strawson is similar to the presupposition here in that it is not asserted: “it introduces a contrast, between the *asserted* and the *presupposed*” (Strawson 1964:89).

To conclude, the link-focus structure is equivalent to the categorical judgment (cf. Kuroda 1972, 1992) with the link corresponding to the subject of the categorical judgment: first, the discourse function of the link (i.e., directing the hearer’s attention to some entity) corresponds to the cognitive act of recognition of the subject in the categorical judgment — the mind is directed to the entity which is the subject, and then the predicate is affirmed or denied of the subject; second, the subject of the categorical judgment is presupposed in the same way as the link is presupposed. It has been hypothesized independently in the literature that there is a significant connection between topic-focus structure (and more generally other focus-sensitive structures (cf. Partee 1991, Hajicová, Partee, and Sgall 1998) and quantificational structures, which were first represented by tripartite structures in the work of Kamp (1981) and Heim (1982). In the link-focus sentences in Japanese and Korean, the correlation between topic-focus structure and the tripartite structure is indicated morpho-syntactically through sentence-initial position and the marker *nun/wa*. In other words, if the semantics of the link-focus structure is represented as the tripartite structure of quantificational operator, the three characteristics of the link follows from the logical structure. Thus, the logico-semantic representation of (2Ja), *kono hon wa minna ga yonde iru* ‘Everybody reads this book’, is (120):

Nariakira in his *Ayuisho* (1778) states, “[*Wa*] separates an entity and makes a judgment [about it]” (Shibatani 1990: 265-6).

(120)



In (120) the link *kono hon wa* goes into the restrictor, which is presupposed and the focus *minna ga yondeiru* goes into the nuclear scope, which is asserted.

3.3.9 Link and Argument Structure

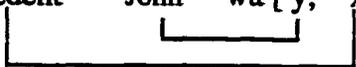
As stated in (105), the link is presupposed in the following two senses: 1) The link is outside the scope of assertion and 2) The link refers anaphorically to the previous information. It is this presuppositional nature of the link that requires the marker *wa*, which has two arguments to be discharged. In other words, the link must have some kind of previous information as its antecedent and it is that antecedent which discharges the second argument of *wa*. For example, in (121):

(121) John-wa watakusi no tomodati desu.
 John-TOP I of friend is

 ‘John is my friend.’

the context in which (121) occurs is where *John* has been mentioned and became salient in the previous discourse. This is a case of anaphoric theme in Kuno (1972:270). In this case, the first argument of *wa* is discharged by the open position of the Noun *John* in the present utterance, assuming that the head Noun of an NP (such as *a dog* for example) is

associated with an open position (which expresses in this case the fact that the head noun *dog* can denote each of the various dogs of the world (cf. Pica 1987)). Now, the second argument of *wa* must be discharged for the NP to be felicitous. In this case, it is discharged by the antecedent, i.e., the utterance of *John* in the previous discourse:

(122) antecedent John wa [y, x]


The antecedent does not have to occur in the previous utterance. In a case like (52) repeated as (123) below,

- (123) A: o-isogasio tokoro-o kuukoo-made miokuri-ni kite
 HON-busy time-ACC airport-to send off-for come
 kudasatte (doomo) arigatoo gozaimasu.
 for (me) (very) thank you HON
 ‘Thank you for escorting me to the airport even in your busy time.’
- B: okaeri ni narareru no de samisiku narimasu.
 returning become because feel empty become
 ‘Since you are leaving, I feel sad.’
- kikai-ga are-ba mata okosi kudasai
 opportunity -NOM exist-if again come back please
 ‘When you have a chance, visit us again.’
- toozyoo tetuzuki-wa osumi ni narare masita-ka?
 on board procedure-TOP finished PAST-Q
 ‘You are finished with baggage-checking, aren’t you?’

the first argument of *wa* in *toozyoo tetuzuki wa* ‘on board procedure’ in (123B) is discharged by the open position of the NP *toozyoo tetuzuki*. Since it is mentioned for the first time, the second argument cannot be discharged by a previous utterance. In this case,

some entity which is in a poset relation⁶⁴ with *toozyoo tetuzuki*, probably *kuukoo* ‘airport’ in the previous discourse or the airport scene itself serves as the antecedent discharging the second argument.

On the other hand, a previous utterance of the entity is not sufficient for the NP to be marked by *wa*. Observe the following example (Isoe 1992: 43):

- (124) a. *kinoo suteeki-to sarada-o tabeta kedo, ano resutoran-wa*
 yesterday steak and salad-ACC eat-PAST but that restaurant-TOP
yoku-nakatta.
 good-NEG-PAST
 ‘Yesterday I ate steak and salad, but that restaurant wasn’t good.’
- b. *doosite?*
 why
 ‘Why?’
- c. *suteeki wa/*ga oisikatta kedo, sarada ga / ?wa mazukatta.*
 steak tasty but salad taste-bad:PAST
 ‘The steak was good, but the salad was bad.’

In (124a), *wa* marking in *ano resutoran wa* ‘that restaurant’ can be explained by invoking a poset relational antecedent. However, the fact that in (124c) *sarada ga* ‘salad+NOM’ is preferred to *sarada wa*, even though *sarada* was mentioned in the previous discourse in (124a) needs explanation. Isoe (1992) attributes the reason to the fact that the proposition that the restaurant was not good activates the open proposition: *X was bad* and B’s utterance *doosite* ‘Why?’ propels the need for the open proposition to be filled. Thus, the open proposition is more activated than the salad. Thus, *sarada* fills in the X slot of the open proposition. Whether or not, and how the open proposition *X was bad* is more activated than *sarada* is not an issue here. The point is that even though the entity is

⁶⁴ Poset relations (Partially ordered subset relations) are discussed in Section 3.4.2.2 (p. 162) in detail.

mentioned previously it can be chosen to be in the focus by the context and the speaker.

The claim that the context and the speaker decide whether the previously mentioned entity should be in the presupposition or in the focus is supported by (125), in which either *ga* or *wa* is acceptable for *sarada*:

(125) a. kinoo steeki to sarada-o tabeta kedo, ano resutoran-wa yokunakatta.
yesterday steak and salad-ACC eat:PAST but,that restaurant-TOP was not good

‘Yesterday I ate steak and salad, but that restaurant wasn’t good.’

b. soo
so

‘Is that so? (=Oh?)’

c. steeki wa/*ga oisikatta kedo, sarada ga/wa mazukatta.
steak tasty but salad taste-bad:PAST

‘The steak was good, but the salad was bad.’

If the NP is chosen to be put in the focus, it is marked by an appropriate case marker or other postpositions depending on the subcategorization of the following verb. In (125c) *sarada* is marked by the Nominative marker, which has one argument. The argument of the Nominative marker *ga* is discharged by the open position of the noun *sarada*.

3.4 Contrastive Sentences

The marker *wa* also occurs in the environment where grammatically parallel constituents in two sentences are set off in contrast, e.g., between two subjects or two objects. In (126), the objects, *ryoori* ‘cooking’ and *soozi* ‘cleaning’ are contrasted:

- (126) ryoori-wa watakusi-ga suru-ga, soozi-wa syuzin-ga suru.
 cooking-TOP I-NOM do -but, cleaning-TOP husband-NOM do
 'The cooking is done by me, and the cleaning by my husband.'

The following sentence (127) shows that *nun* in Korean behaves in an identical manner:

- (127) Hakkyo-eyse-nun pothong Maykhinthosi-lul ssu-ko hoysa-eyse-nun
 school- in -TOP usually Macintosh-ACC use-and company-in-TOP
 aibieym-ul sse-yo
 IBM-ACC use-HON
 'In schools usually Macintosh is used and in companies IBM is used.'

In (127), two adverbial phrases, *hakkyo-eyse* 'in school' and *hoysa-eyse* 'in companies' are set off in contrast. In (126) and (127), the two contrasted constituents are fronted and placed outside the scope of assertion, because each one is the link of its own clause. Even in subordinate clauses, including conditional antecedents, in which *nun* or *wa* normally is prohibited, the postpositional marker must occur if two elements are contrasted, as can be seen in (128K) and (128J):

- (128) K. Han salam-un khi-ka khu-ciman ton-i eps-ko,
 one person TOP height-NOM tall-but money-NOM not-exist-and
talun han salam-un khi nun cak-ciman ton-i manh-ta-myen
 another person-TOP heigh-TOP short-but money- NOM much-is-if
 etten salam-ul thaykha-llay?
 which people- ACC choose-will
 'If one person is tall but poor and the other is short but rich, which person will you choose?'

- J. Anata-wa, kinoo no paati- ni Taroo-wa kita-ga,
 you-TOP yesterday of party to Taroo-TOP came-but

Chioko-wa konakatta koto-o sitte-imasu-ka.
 Chioko-TOP didn't come fact-ACC know-Q

'Do you know that Taroo came to yesterday's party but Chioko didn't?'

Why does the marker *wa/nun* invariably occur in the contrastive environment? Is it because the contrastive environment has something in common with generic or link-focus structures? Before we launch into this issue, a little caveat must be placed, because 'contrast' and 'focus' are sometimes conflated in the literature. In the next section, two types of contrast, contrast of focus and contrast of topic, are differentiated.

3.4.1 Contrast of Focus and Contrast of Topic

What is contrast? Let's take Chafe's example of a contrastive sentence, *Rónald made the hamburgers*, where the acute accent mark indicates that the highest pitch and stress are on the stressed syllable of *Ronald*. What is conveyed by such a sentence, as discussed in Chafe (1976), is the speaker's knowledge that Ronald, as opposed to other possible candidates the addressee might have had in mind, is the right selection for this role. The felicity condition for the sentence is the speaker's assumption that the addressee shares the background knowledge that someone made the hamburgers. This background knowledge can be introduced into the discourse directly by assertion, or obliquely by attribution or by a question, or quite indirectly by virtue of being construable from a proposition that has already been introduced. Chafe claims that three factors — awareness of the background knowledge (assumed to be) shared by the speaker and the addressee, the set of possible candidates, and the assertion of which candidate is the correct one — are involved in contrastiveness. This generalization, however, is not about contrastiveness.

It is about FOCUS, particularly 'contrastive FOCUS' (not to be confused with Chafe's "focus of contrast"). There is another kind of contrastiveness: the contrast of TOPICS.⁶⁵

The semantics of the focus construction has two essential parts: a presupposition and an assertion. The presupposition can be generated by translating the focused element by a variable. In the case of the contrast of FOCUS, the focus is contrasted with all other alternatives that might have satisfied the variable of the presupposition, but didn't. On the other hand, in the case of the contrast of TOPICS, three factors that Chafe claims as necessary factors for contrastiveness do not play a role in the way as Chafe describes. What is asserted is not the topics contrasted, but whatever follows the topic. Consider (129a) and (129b):

(Prince 1981a: 256)

- (129) a. I used to live in Philadelphia and I often went to Atlantic city.
 b. Philadelphia I used to live in and Atlantic City I often went to.

In (129b), there is a contrast between the two topicalized NPs, *Philadelphia* and *Atlantic City*, but it is not a contrast of focus. There is no background knowledge shared by the speaker and the addressee. There is no assertion of Philadelphia as the correct one.

Philadelphia and *Atlantic City* are co-elements of a set. What is asserted is the speaker B's relation to the two cities: with respect to Philadelphia, Speaker asserts that he used to live there, and with respect to Atlantic City, that he often went there. Chafe's three factors — background knowledge, the set of possible candidates, and the assertion of the correct candidate — do not play any part in (129b). Yet in (129b), there is a contrast between Philadelphia and Atlantic City. This is a case of the contrast of TOPICS.

⁶⁵ Szabolcsi (1981) and Vallduví (1992) also observed that the two types of contrast are different in nature.

In discussing the particles *wa* and *ga* in Japanese, Kuno (1972, 1973) claims that *wa* marks either the theme or the contrasted element of the sentence. The theme must be either anaphoric (i.e., previously mentioned and recorded in the registry of the present discourse) or generic, while there is no such constraint for the contrasted element (Kuno 1973:39,44). Unfortunately, the alleged dichotomy of the thematic vs. contrastive use of *wa* which was implied by the above generalization seems to have caused considerable misunderstanding and confusion about focus and contrast, not to mention the functions of *wa*. The source of the widespread confusion is the claim (e.g., as in Diesing 1988) that if an element is contrasted with something else, then it is not thematic, but focused.

In Carlson (1977b) predicates are classified into two types: INDIVIDUAL-LEVEL PREDICATE and STAGE-LEVEL PREDICATE. Individual-Level Predicates may be regarded as denoting a relatively permanent, or tendentially stable property of the individual in question, and contrast with Stage-Level Predicates, which refer to relatively transient, episodic properties. The following examples illustrate the individual vs. stage distinction:

(130) Individual-Level:

- a. Carpenter ants have six legs.
- b. Linguists are intelligent.

Stage-Level:

- a. Carpenter ants are destroying my viola.
- b. Firemen are available.

In examining the logical status and the syntactic position of bare plural subjects in these two types of predicates, Diesing (1988) discusses thematic vs. contrastive use of *wa* in Japanese: (131) is an example of thematic *wa* and (132) and (133) are examples of contrastive *wa*: while (132) is a case of explicit contrast, (133) is a case of implicit contrast. She claims that the contrastive *wa* represents narrow focus while *ga* represents wide

focus.⁶⁶ In this discussion Diesing conflates the contrastive use of *wa* and the focus use of *ga* :

(Diesing 1988: 35⁶⁷)

- (131) John-wa sono hon-o yonda.
 John-wa this book-ACC read
 'Speaking of John, he read the book.'
- (132) John-wa sono hon-o yonda ga Mary-wa yoma-na-katta.
 John-wa this book- ACC read but Mary-wa read not PAST
 'John read the book, but Mary didn't.'
- (133) Kujira-wa mie-ru.
 whale-wa visible
 'WHALES are visible, (but not dolphins...)' (CONTRAST)
 'Speaking of whales, they are VISIBLE.' (TOPIC)

In (132) *John* is clearly contrasted with *Mary*. But does this mean that *John* and *Mary* are not qualified to be the topic of each sentence? Can the fact that they are contrasted prevent us from saying that they are themes of their respective sentences? (132) is a typical example of contrast which is expressed by parallel sentence structure; John and Mary are presented not as the focus but as the theme of each clause. The literal translation of (132) would be "Speaking of John, he read the book, but speaking of Mary, she didn't." John and Mary are the subjects, which are on the highest scale in the thematic hierarchy.⁶⁸ In

⁶⁶ Heycock (1993) also points out that the idea that *ga* is a marker of focus in Japanese is wrong. Adopting Vallduvi's information packaging system (cf. Vallduvi 1992) Heycock claims that if argument is a LINK it must be marked with *wa*. Consequently, the *ga*-marked subject must instead be either part or all of the TAIL or part or all of the FOCUS.

⁶⁷ The number 35 is the page number of her manuscript.

⁶⁸ Kuno (1976) proposed the following hierarchy, which was originally proposed by Keenan and Comrie (1977) for the accessibility of noun phrases for relativization, as a hierarchy for accessibility to thematic interpretation of noun phrases: Subject > Dir. Obj > Indir. Obj > Obj of Preposition > Possessive NP > Obj of Comparative Part.

(133), *kujira* is implicitly contrasted with something else which was not expressed as a linguistic element but somehow became salient either by being mentioned previously or by inference. Diesing says that sentence (133) can be uttered out-of-the-blue and in that case it receives the contrastive reading, but in fact (133) cannot be uttered out-of-the-blue. It can be uttered only when whales are contrasted with other sea animals in the context whales and some other sea animals are either mentioned or become salient inferentially through a discourse principle such as RELEVANCE (cf. Sperber & Wilson 1986). In the context in which suddenly a whale is visible and the intended meaning is either “I see a whale” or “whales are visible rather than some other sea animal,” then the sentence should be *Kujira ga mieru*. If the focus of contrast is defined as “an element asserted as the correct selection for the variable,” the contrasted elements in (132) - (133) are not the focus. In *wa*-marked sentences, what is asserted and focused is not the *wa*-marked phrase but what follows it.

As a rule of thumb for testing of contrastiveness, Chafe suggests that we can ask whether the phrase “rather than (instead of)” can be felicitously inserted after the focus. This kind of focus can be called CONTRASTIVE FOCUS (In Culicover and Rochemont 1983, three types of contrast are discussed: contrastive focus, informational focus, and presentational focus). All *wa*-marked sentences fail to pass this test; *ga* is invariably used in this situation, as illustrated in (134). Therefore *wa* -marked contrastive sentences cannot be contrastive FOCUS.

- (134) a. John-ga kuruma-o araimashi-ta-ka?
 John-NOM car-ACC wash-PAST-Q
- b. John-ga arawa-na-kute watashi-ga araimashi-ta-yo.
 John--NOM wash-NEG-and I--NOM wash-PAST
- ‘John didn’t wash the car, I did.’

Another kind of focus is INFORMATIONAL FOCUS. One way to test this kind of focus is to see what WH-question it was designed for or could be appropriately used to

answer. If *kujira* 'whale' is the focus of the sentence (133), then it could be used to answer the question, *Nani ga mieru ka?* 'What do you see?' However, (133) cannot be an answer to this question. In an answer to this question, the Nominative marker *ga* must be used. Thus, (133) cannot be a case of INFORMATIONAL FOCUS, either.

Finally, there is PRESENTATIONAL FOCUS, which is the use of focus to introduce an individual or an item into the discourse. In this case, too, *ga* is invariably used in Japanese.⁶⁹

(135) mukashi mukashi aru tokoro ni ojiisan to
 long time ago a certain place at old man and
 obaasan- ga sunde ori-mashita.
 old woman-NOM live-PAST

'Once upon a time, there lived an old man and an old woman.'

In all three cases of focus, *ga* not *wa* is used. In Korean also, the Nominative marker, *i/ka* instead of *nun* is used in all of the three cases of focus.⁷⁰ To call the contrastive use of *wa* in *Ame wa hutte imasu ga, yuki wa hutte imasen* 'It's raining but it's not snowing' "the focus of contrast" (Chafe 1976: 38) is very confusing.

Kato (1985) presents an example which shows that the topic-contrastive distinction cannot be binary in that a single occurrence of *wa* can be a topic and a contrastive element simultaneously. Sentence (137b), which has frequently been cited as an instance of a topic, should be interpreted contrastively, but as a topic with heavy contrastive effect, if it appears in a context like (137b):

⁶⁹ This use of *ga* can be equated with Kuno's neutral description.

⁷⁰ In discussing the definiteness effect, Lee (1989) states that existential or presentational sentences involve indefinite NPs and that they are characterized by the undeletable nominative marker-*ka* which has existential assertion force.

(Mikami 1960: 9)

- (136) zoo-wa hana ga naga-i.
elephant-TOP trunk-NOM long
'As for an elephant, its trunk is long.'
- (137) a. Sore'zore no doobutsu de karada no nagai bubun o age-te kudasai.
following of animals of body of long part-ACC tell- please
'Please tell me which part of the body is long in the following animals.'
- b. Usagi-wa mimi- ga nagaku-te, kirin-wa kubi-ga nagai shi
rabbit-TOP ear-NOM long and giraffe-TOP neck-NOM long and
dachoo-wa ashi- ga nagai shi, zoo-wa hana-ga nagai shi.
ostrich TOP leg-NOM long and elephant-TOP trunk-NOM long and
'A rabbit has long ears; a giraffe has a long neck; an ostrich has long legs;
an elephant has a long trunk...'

A sentence like (137b) is a case which involves co-elements of a set: the set of animals which have long body parts. When the elements of the set are more than one, a list understanding is induced. As pointed out by Prince (1981a), the phenomenon of contrast occurs when a list understanding is induced in topics. The list can be expressed explicitly or implicitly. The following example from Chafe (1976: 49) is an instance of the implicit expression:

- (138) The pláy, John saw yésterday.
(139) As for the pláy, John saw it yésterday.

As for why 'the play' should be placed at the beginning of such contrastive sentences, Chafe explains, it is evidently a given item from a list which is being run through explicitly or implicitly. In this type of contrast, *wa* is used in Japanese because the fronted NP is outside the scope of assertion and the sentence is about the play:

- (140) gikyoku wa John- ga kinoo mi-mashita-yo
 play-TOP John-NOM yesterday see-PAST
 ‘The play, John saw it yesterday.’

Chafe suggests that these cases of contrastiveness should not be called topics, because they exemplify the phenomenon of contrast which the ‘real topics’ in topic-prominent languages do not require. Chafe’s suggestion is due to the widespread confusion that a contrastive element cannot be thematic. An effect of contrast, as Prince (1981a) correctly observes, obtains just in case: (i) a list understanding is induced, and (ii) a salient opposition is inferred from the new information represented in the clause associated with each element. Topics in those cases are contrastive both in English and in topic-prominent languages. However, a contrast of topic should not be equated with contrastive-stress focus, i.e., where the entire proposition is presupposed and the noun in focus is then identified in contrast to other members of a possible set.

There are two types of Topicalization in English: Topic Topicalization as in (141) and (142) (henceforth TT) and Focus Topicalization as in (143) and (144) (henceforth FT) (cf. Gundel 1974, Reinhart 1982, Prince 1981a):

- (141) Beans, I don’t like. (Ross 1967: 168)
 (142) Macadamia nuts, I can’t afford. (Prince 1981a: 250)
 (143) Macadamia nuts, they’re called. (Gundel 1974: 187)
 (144) A certain monk, I saw. (Gundel 1974: 187)

Only in the latter type can the fronted NP receive focus intonation and hence focus interpretation as shown in (143)-(144):⁷¹ It is interesting to note that in sentences of Topic Topicalization, the fronted NP is marked by *nun* in Korean and by *wa* in Japanese, whereas in sentences with Focus Topicalization the fronted NP cannot be marked by these markers as shown in (145)-(148), which are the corresponding Korean sentences of (141)-(144) respectively:⁷²

- (145) *khong-un na-nun an cohahay.*
 beans-TOP I-TOP not like
 'Beans, I don't like.'
- (146) *Macadamia nuts-nun na-nun kamtang mos hay.*
 Macadamia nuts-TOP I-TOP afford can't do
 'Macadamia nuts, I can't afford.'
- (147) *Macadamia nuts-lako / *lako-nun pull-e.*
 Macadamia nuts -as / *as- TOP called
 'Macadamia nuts, they're called.'
- (148) *Etten cwung-ul / *nun nay-ka po-ass-e.*
 certain monk-ACC / * TOP I-NOM see-PAST
 'A certain monk, I saw.'

⁷¹ In addition to the primary stress, Gundel presents a variety of tests which show the difference between TT and FT including a specific reading of indefinites, and *anyway* test. She concludes that TT and FT come from different underlying structures: TT sentences are derived from the structures underlying Left-Dislocated constructions, FT from the cleft constructions.

⁷² On this account, the structural analogue of Focus Topicalization in English is scrambling in Korean and Japanese. This observation also casts serious doubt on the fairly standard account that sentence-initial topics in Japanese and Korean are dominated by CP while topics in English Topicalization are IP adjoined (cf. Saito 1985, Kang 1986, Whitman 1989, Brockett 1991). This issue was discussed in Chapter 2.

This fact indicates that the two types of Topicalization are indeed very different in nature although syntactically they look alike. The NP in FT is asserted, but the NP in TT is not. While the fronted NP in FT is focused and hence inside the scope of assertion, the fronted NP in the latter is outside the scope of assertion. In the following section, I shall examine the notion of givenness and its interaction with contrastiveness.

3.4.2 Contrastiveness and Givenness

The general notion of given vs. new information figures prominently in much linguistic literature and a common assumption about preconditions for topichood is that the topic must be in some sense given. However, precisely what does it mean that topic must be given? To what extent can it be justified? Can the distinction between *wa* vs. *ga* in Japanese and *nun* vs. *ka* in Korean really be addressed in terms of given vs. new, as has been claimed in the literature? How does a linguistic item (or the discourse entity that the linguistic item refers to) acquire givenness? What is the relationship between givenness and contrast? These questions are explored in this section.

Like many pragmatic notions, this intuitively appealing notion of givenness has appeared under a variety of names and has been characterized in many different ways: old information, anaphoricity, identifiability, predictability, shared knowledge, familiarity, saliency, activated, and presupposition. Those diverse notions of givenness were split into three categories by Prince (1981b):

(149) givenness_p : "Predictability"

The speaker assumes that the hearer can PREDICT or COULD HAVE PREDICTED that a PARTICULAR LINGUISTIC ITEM will or would occur in a particular position within a sentence. [Halliday 1967, Kuno 1972]

givenness_s : "Saliency"

The speaker assumes that the hearer has or could appropriately have some particular thing/entity in his/her CONSCIOUSNESS at the time of hearing the utterance. [Chafe 1976, Prince 1981b]

givenness_k : "Shared Knowledge / Assumed familiarity"

The speaker assumes that the hearer "knows," or assumes, or can infer a particular thing (but is not necessarily thinking about it). [Clark & Haviland 1977]

Addressing the notion of given vs. new and the distinction of *wa* vs. *ga* in Japanese, Chafe (1970:233) states that *wa* reflects old information and *ga* reflects new information. Consider the following example:

- (150) *watasi ni-wa san-nin no musuko-ga iru. tyoonan-wa amerikaa ni,*
 I with-TOP three person of son-NOM exist first son-TOP America in
 zinan-wa kanadaa ni, sannan-wa ostraria ni sunde imasu.
 second son-TOP Canada in third son-TOP Australia in living
 'I have three sons. The first son lives in America, the second son in
 Canada, and the third son in Australia.'⁷³

Chafe's remarks regarding *wa*, however, are incorrect if we interpret the notion of given as given_s (Chafe's given) or given_p (Predictable). In (150), *tyoonan* 'first son', *zinan* 'second son' and *sannan* 'third son' represent new information because they were not in the consciousness of the addressee at the time of the utterance, nor are they predictable. However, if givenness is interpreted as given_k (i.e., the speaker assumes that the hearer can infer a particular thing) Chafe's remark can be maintained. The listener can infer *tyoonan*, *zinan*, and *sannan* after he has heard that the speaker had *sannin no musuko* 'three sons'. Therefore, *tyoonan*, *zinan*, and *sannan* are given in the sense of given_k.

⁷³ This sentence has a contrastive effect, because the first son, the second son, and the third son are the co-elements of the set, *sannin no musuko* 'three sons'. When a list understanding is induced, contrast is inferred (cf. Prince 1981a).

In Kuno (1972: 270), he summarizes the analysis of *wa* and *ga* in his previous papers (1969, 1970) as follows:

(151) (i) *wa* marks the "theme" of a sentence

e.g. John-wa watakusi no tomodati desu.
John TOP I of friend is
'John is my friend.'

or

(ii) *wa* marks the contrasted elements of a sentence.

e.g. Ame-wa hutte imasu ga, yuki-wa hutte i-masen.
rain-TOP coming is but snow-TOP coming is not
'Rain is coming, but snow is not coming.'

and

(iii) the theme must be either anaphoric (i.e., previously mentioned) or generic, while there is no such constraint for the contrasted element.

Kuno (1972) reexamines uses of *wa* and *ga* from the perspective of old, predictable information vs. new, hence unpredictable information in a given sentence. Kuno's generalization suggests two things: (i) there are two lexical entities; thematic *wa* and contrastive *wa*; (ii) *wa*, at least thematic *wa*⁷⁴ marks old information. Unfortunately, however, due to the vagueness of his discussion, Kuno (1972)'s notion of 'old information' was interpreted by other researchers simply as 'anaphoric' i.e., having been mentioned.⁷⁵ For instance, Maynard (1981) criticizes Kuno pointing that *ga* may be used to mark 'old / given' in any sense defined above, or known information, even though *wa* is the expected postpositional particle (cf. Maynard 1981; Hinds, 1987). Another problem is

⁷⁴ In his footnote, Kuno admits that in the case of contrastive *wa*, "we have to say that the NP-*wa* in the subject position sometimes represents new information." But he states that thematic cases of *wa* are instances of old (predictable) information.

⁷⁵ In Kuno (1978), he distinguishes "old" from "anaphoric," with "old" and "new" exclusively as meaning "predictable, recoverable" and "unpredictable, unrecoverable" from the preceding context.

that not only the notion of 'old' but the notion of 'new information' is also elusive. In addition to "unpredictability," Kuno (1972: 272) refines the notion that "the subject conveys new information" into the view that "the semantic relations of the subject with respect to the rest of the sentence is new." If the "new information" of the subject is defined as its semantic relation with respect to the rest of the sentence, then the *wa* marked NP also, whether it is thematic or contrastive, conveys new information, because in *wa* -marked sentences what follows the *wa* -marked NP is always unpredictable and new with respect to the *wa* -marked NP and hence the relation of the *wa*-marked NP to the rest of the sentence is new. To illustrate the point, let's consider the three situations in which, as Martin 1975: 60ff describes, *wa* is used. These are:

(152) (i) You are asking or answering a question about some other part of the sentence,

e.g. ano hito-wa dare-ga yonda-ka ?
 that person-TOP who-NOM called-Q

'As for that person, who called (him)?'

(ii) You are denying something about some other part of the sentence,

e.g. tabako-ga arimasu-ka?
 cigarettes-NOM exist-Q

'Do you have cigarettes?'

tabako-wa nai.
 cigarettes-TOP doesn't exist

'As for cigarettes, there are none.'

(iii) You are supplying information about the point of contrast between grammatically parallel constituents in two sentences, such as between two subjects or two objects.

e.g. kore-wa ookii ga, sore-wa chiisai.
 this-TOP big-but, that-TOP small

'This is large, but that is small.'

In all three situations above, the semantic relation of the *wa*-marked NP with respect to the rest of the sentence is clearly new. Therefore, the differences in distributional properties between *wa* and *ga* cannot be described through reference to the notions of “new” vs. “old” defined in terms of semantic relation.

In addition to “predictability” and “recoverability,” another concept that interacts with the concept of “old” in Kuno is “anaphoricity.” The notion of “anaphoricity” was explained as previously “mentioned” in Kuno (1972: 270), and as “entered into the temporary registry of the present discourse” in (Kuno 1973: 39–40). There, “anaphoricity” along with “genericity” refers to an abstract notion, “discourse registry.” If “anaphoricity” is viewed from this narrow angle, the generalization that “the theme must be either anaphoric or generic” is also not tenable, because ‘the first son’, ‘the second son’. and ‘the third son’ in (150) are not anaphoric in this sense, nor generic. Kuno’s later notion of “anaphoricity” is very close to the notion of definiteness: “A noun phrase is ‘anaphoric’ if its referent is uniquely identifiable either due to its previous mention in the discourse, or to the shared nonlinguistic knowledge” (Kuno 1978: 283). “The shared nonlinguistic knowledge” seems to be what he previously called “permanent registry.” Even in this broad interpretation of ‘anaphoricity’ the generalization that the theme must be either anaphoric or generic cannot be maintained, because nonanaphoric NPs can qualify as themes if the referent of the proposed NP stands in a particular relationship to previously evoked referents (cf. Ward and Prince 1991). For example, in (153),

- (153) I became a waitress because I needed money fast and you don’t get it in an office. My husband and I broke up. [...] the fast buck, your tips. *The first ten-dollar bill that I got as a tip*, a Viking guy gave to me. He was a very robust, terrific atheist. (Terkel 1974: 390, from Ward & Prince 1991)

the first ten-dollar bill is neither anaphoric nor generic in Kuno’s sense. And yet, it makes a perfect theme, because it stands in a particular relationship to the previously evoked referent, *tip* : *the first ten-dollar bill* is a subtype of the type, *tip*. Note that in (154), which

is a corresponding Japanese sentence to (153), *hajimeno juu doru* ‘the first ten-dollar bill’ is attached by *wa*, which is clearly a thematic *wa* in Kuno’s sense:

(154) syuzin to rikon site tettori bayaku erareru okane-wa
 husband with divorced and quickly can get money-TOP
 tip dakara...tip to site te-ni ireta hajime no 10 doru-wa
 tip because tip as hand-to came in the first of ten dollar-TOP

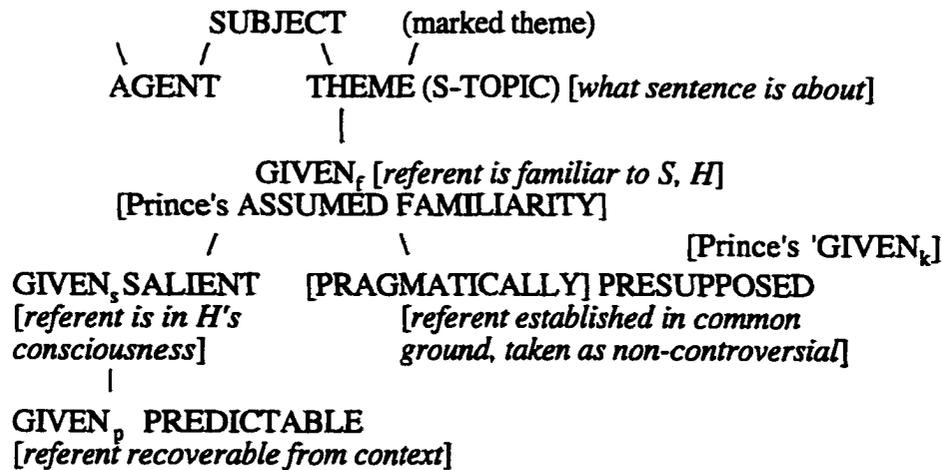
Viking mitai na oo-otoko kara desita.
 Viking looking big-guy from was

‘I have divorced from my husband and ... Money you can get quickly is your tip, so ... The first ten dollar bill that I got as a tip was from a big Viking guy.’

It is clear that ‘old / new information’ defined by notions like “(un)predictability” and “(un)recoverability” cannot solve the problem of *wa/ga* in Japanese, let alone the problem of theme in general. What we need is a more broad, and yet more clearly defined notion for theme and a deeper analysis for the seemingly diverse functions of *wa*.

The three categories of givenness defined in terms of predictability, saliency, and assumed familiarity are not mutually independent. They are concentrically related: “What is predictable is salient, what is salient is familiar. But something can also be or become familiar by virtue of being presupposed in the sense of the Stalnaker-Karttunen notion of PRAGMATIC presupposition or CONVENTIONAL IMPLICATURE” (Horn 1986: 171). For this reason, Horn presents a hierarchical bifurcated tree of givenness as in (155):

(155)

The Givenness Tree

In the next section, I will discuss three phenomena: outbound anaphora, long-distance anaphora in English, and contrastive topics in an embedded clause in Korean and Japanese. All of these phenomena will show that ASSUMED FAMILIARITY can be obtained through another channel, CONTRAST. That is, by virtue of being in contrast, an entity can acquire more relative accessibility and hence assumed familiarity.

3.4.2.1 Outbound Anaphora

In discussing outbound anaphora, exemplified in (156) – (157), Ward et al. (1991) convincingly demonstrate that felicity of outbound anaphora, as of anaphora in general, is a function of the accessibility of the discourse entity to which the anaphor in question refers, and that pragmatic factors such as contrast and topicality serve to increase the salience or accessibility of discourse entities evoked by word-internal elements. The first attempt to rule out word-internal antecedents for anaphoric elements is found in Postal (1969: 230), where contrasts such as (156a) and (156b) are discussed:

- (156) a. Hunters of animals tend to like them. [them=animals]
 b. * *Animal hunters* tend to like *them*.
- (157) a. * Max is an *orphan* and he deeply misses *them*. (orphan= 'a child whose *parents* have died') (Postal 1969:206, ex. 3a)
 b. * The best *pork* comes from young *ones*. (pork='meat from *pigs*')
 c. * *Smokers* really shouldn't *do so*. (Postal 1969:217, ex. 65b)

On the basis of such data, Postal argued that coreferential pronouns (e.g., 157a), “identity of sense” pronouns (e.g., 157b), and the pro-VP *do so* (e.g., 157c) cannot be anaphorically related to words that constitute ‘part of the meaning’ of another word in the sentence. Even if a word is morphologically present within another word, Postal claimed, it still cannot serve as an antecedent for these anaphoric elements, as illustrated in (156b) and (157c) for many speakers.⁷⁶ Thus, words such as ‘animal hunters’ constitute a type of ANAPHORIC ISLAND—“a sentence part ... which cannot contain the antecedent structure for anaphoric elements lying outside” (Postal 1969:205). Advocates of the LEXICAL INTEGRITY HYPOTHESIS claim that the existence of anaphoric islands follows from the hypothesis that syntactic processes do not have access to the internal structure of words. Because word-internal components are not visible to syntactic operations, there is no way for an anaphor to be coindexed with a word-internal antecedent. Outbound anaphora are thus predicted to be categorically ungrammatical (cf. Pesetsky 1979; Kiparsky 1982; and Mohanan 1986).

Watt (1975), however, noted that an outbound anaphora is facilitated when the antecedent bears contrastive stress, as in (158a–d). Consider the following data:

⁷⁶ Many speakers, however, accept sentences such as (157c).

- (Ward et al. 1991: 456)
- (158) a. For a *SYNTAX* slot, I'd rather see someone with more extensive coursework in *it*. (Judith Levi discussing various subdisciplines of linguistics; January 18, 1987)
- b. Patty is a definite *KAL KAN* cat. Every day she waits for *it*. (Television advertisement for Kal Kan; January 28, 1987)
- c. Cliff Barnes: Well, to what do I owe this pleasure?
Ms. Cryder: Actually, this is a *BUSINESS* call, and I'd like to get right down to *it*. ('Dallas': 1987).
- d. All the *NIXON*ites I know are for putting all the Agnewites in cold storage till 1976; but *HE HIMSELF* doesn't care a fig. (Watt 1975: 106)

Watt claimed that contrast between Nixon and Agnew in (158d) — marked prosodically by a pitch accent on Nixon — “exposes” the antecedent in a way the deaccented antecedent would not. Likewise, in (158a) the speaker is contrasting syntax with other subdisciplines of linguistics, and in (158c) the second interlocutor contrasts business with pleasure. Watt also argued that 'exposed' antecedents result in reduced processing effort (1975:105). However it was later noted that the function of prosodic prominence is not to expose linguistic strings, but rather to highlight, or focus, the discourse entities to which those strings refer (cf. Wilson & Sperber 1979; Prince 1981b, 1985; Rooth 1985; Pierrehumbert & Hirschbert 1990).

Citing a series of psycholinguistic experiments (McKoon et al. 1990), Ward et al. (1991) convincingly demonstrated that the degree to which outbound anaphora is felicitous is determined by the relative accessibility of the discourse entities evoked by word-internal lexical elements, and not by any principle of syntax and morphology, and the relative accessibility or salience of the discourse entities is increased by pragmatic factors.

In particular, a discourse entity is more accessible when the entity stands in salient opposition to some other entity as was shown in (158a) – (158d). It was also claimed by Ward et al. (1991) that the notion of topicality serves to increase the accessibility of the

discourse entities to the degree to which outbound anaphora is felicitous.⁷⁷ One assumption that has to be made in this analysis is a view of anaphora as a relation between a linguistic anaphor and its nonlinguistic referent in the discourse world. This contrasts with the earlier prevailing view of anaphora as essentially a relation between linguistic elements.

The phenomenon of outbound anaphora we have seen above clearly indicates that the familiarity of a discourse entity can be increased to the degree that outbound anaphora can be felicitous when the entity stands in contrast to some other discourse entity. In other words, the discourse entity evoked by the word-internal antecedent becomes sufficiently accessible at the time of the utterance due to semantic and pragmatic factors. Anaphora, like topic, requires the familiarity of a discourse entity as a felicity condition. Familiarity develops syntactically or pragmatically. When the anaphor has its linguistic antecedent it is predictable and hence familiar: This is the case of syntactic development (i.e., surface anaphora). Pragmatic development of familiarity can occur in several ways: when the discourse entity is visible or palpable in reality at the time of discourse, i.e., 'deep' anaphora (cf. Hankamer & Sag 1976), when the discourse entity is pragmatically presupposed (cf. Karttunen 1974; Stalnaker 1974, 1976), or when the discourse entity is in contrast to other entities, as we have seen above.

3.4.2.2 Long-Distance Anaphors

English reflexive pronouns known as LONG-DISTANCE-ANAPHORS (LD- anaphors) also show that pragmatic factors such as contrast and point of view override syntactic

⁷⁷ Topichood is also claimed as a relevant factor in Backward Pronominalization in Gundel 1976 and Kuno 1995.

principles. The theory of anaphora proposed by Chomsky (1981: 188) stipulates that nominal expressions in natural languages can be subclassified into three sets as follows:

- (159) a. An ANAPHOR is bound in its governing category.
 b. A PRONOMINAL is free in its governing category.
 c. An R-expression is free.

An anaphor is bound if it has an antecedent that C-commands it,⁷⁸ and free otherwise.

GOVERNING CATEGORY is defined as any phrase containing a governor for the pronoun and a subject, where the “subject” subsumes the subject of a clause, in the usual sense, and that of a “small clause,” capitalized in (160):

- (160) a. John lets [MARY sleep].
 b. John wants [MARY back at noon].

The syntactic principles expressed in (159), however, are violated in picture NPs, genitive positions, some PPs, and emphatic contexts, in which reflexive pronouns and regular pronouns alternate.⁷⁹ Particularly interesting for the current discussion is the emphatic contexts which are exemplified as (161) (cf. Ross 1970, Cantrall 1974, Kuno

⁷⁸ The *C-command* relationship is defined as :

X C-commands Y iff the first branching node dominating X dominates Y, and X does not dominate Y, nor Y, X.

⁷⁹ Long-distance (LD-) anaphors violate the Binding Principle A in a productive way. Many examples are described in languages as diverse as English (Ross 1970, Cantrall 1974, Kuno 1987, Jayaseelan 1988, Zribi-Hertz 1989, Reinhart and Reuland 1991, Koster & Reuland 1989), Danish (Pica 1985, 1987), Dutch (Koster 1985, Everaert 1986), French (Zribi-Hertz 1987), Japanese (Kuroda 1973), Korean (Chang 1977, O’Grady 1987, Kang B.M. 1988, Jeon 1989, S.H. Kim 1993), Latin (Milner 1982), etc.

1987, Jayasselan 1988, and Keenan 1988, Zribi-Hertz 1989, and Reinhart and Reuland 1991):

(Zribi-Hertz 1989: 698-9)

- (161) a. John_i thinks that Mary is taller than {him_i / himself_i}.
- b. John_i thinks that physicists like {him_i / himself_i} are a godsend.
- c. John_i believes that letter was sent to {both him_i and Mary / both Mary and himself_i}.
- d. John_i believes that letter was sent to {either him_i or Mary / either Mary or himself_i}.
- e. John_i believes that letter was sent to {everyone / no one} but {him_i / himself_i}.
- f. As for {him_i / himself_i}, John_i said that he wouldn't need to move.
- g. John_i thinks that Mary is in love with {him_i / himself_i}, not Peter.⁸⁰
- h. John_i thinks that Mary hates even himself_i.

Keenan (1988) defines examples like those in (161b-e) as conjunctive, disjunctive, or comparative NP structures under the heading COMPLEX anaphors. Zribi-Hertz (1989) suggests that all of the examples in (161a-h) may be characterized by the fact that their pronoun is read as DOMINANT within its sentence, in the sense of Erteschik-Shir (1973, 1981) and Erteschik-Shir & Lappin (1983): namely, the pronoun is either identified as the sentence focus, as in (161e), or it is understood as restrictively dominant.

What is common to (161a)-(161h) is that they all involve a set in which more than one member occur either in a comparative relation as in (161a-b), or in a conjunctive relation / disjunctive relation as in (161c-e), or in a contrastive relation as in (161f-g) and that the members of the set occur in the same clause explicitly or implicitly: in (161a), Mary and John; in (161b), distinguished physicists like John and ordinary physicists (the latter is

⁸⁰ In order for (161g) to be acceptable, *himself* must be stressed.

implicitly inferred); in (161c), Mary and John; in (161d), Mary or John; in (161e), John and the rest of everyone; in (161f), John and others (*as for* in English conventionally implies “as opposed to others”); in (161g), John and Peter; and in (161h), John and others (*even* conventionally implies/ presupposes others). The question of interest now is why the set makes reflexive pronouns felicitous.

Observing that in the syntactic movement of preposing the entities related by a set-relation inference behave the same as evoked entities, Ward & Prince (1991) propose the following partially ordered sets (poset) relation as a discourse condition on preposing:

(162) Discourse Condition on Preposing:

The entity represented by the preposed constituent must be related, via a salient partially ordered set relation, to one or more entities already evoked in the discourse model.

Posets are defined by a partial ordering R on some set of referents, b , such that, for all b_1 , b_2 , and b_3 that are elements of b , R is either reflexive, transitive, and antisymmetric (cf. (163a)) or, alternatively, irreflexive, transitive, and asymmetric (cf. (163b)) as follows:

- (163) a. REFLEXIVE: $b_1 R b_1$
 TRANSITIVE: $(b_1 R b_2 \text{ and } b_2 R b_3) \rightarrow (b_1 R b_3)$
 ANTISYMMETRIC: $(b_1 R b_2 \text{ and } b_2 R b_1) \rightarrow (b_1 = b_2)$
- b. IRREFLEXIVE: $b_1 \not R b_1$
 TRANSITIVE: $(b_1 R b_2 \text{ and } b_2 R b_3) \rightarrow (b_1 R b_3)$
 ASYMMETRIC: $(b_1 R b_2) \rightarrow (b_1 \not R b_2)$

A relation satisfying the first is IS-AS-TALL-AS-OR-TALLER-THAN and one satisfying the second definition is IS-TALLER-THAN. Other orderings satisfying this definition include

IS-A-PART-OF, IS-A-SUBTYPE-OF, IS-A-MEMBER-OF, and IS-EQUAL-TO relation. An element in a poset may be associated with an entity, attribute, event, activity, time or place — or with a set of such items. This notion more clearly defines the inference relation which was vaguely mentioned in given_k (The Speaker assumes that the hearer “knows” or assumes or can infer a particular thing (but is not necessarily thinking about it)). Thus, the poset relation accommodates examples like (164) and (165), which would not be explained by previously invoked notions such as ‘old information’ (cf. Kuno 1972, 1973, Chafe 1976, Clark and Haviland 1977), or ‘presupposition’ (Strawson 1952, Chomsky 1971, Keenan 1971, Karttunen 1974).

(Ward & Prince 1991: 172)

(164) A: You know this album?

B: *This song* I know.
(Overheard in conversation, University of Pennsylvania.)

(165) A: What are you having?

B: I usually get soup.

A’: Maybe *this one* [soup of the day] you wouldn’t like.
(Waitress to customer at Deluxe Diner, Philadelphia)

In (164B), *this song* is a part of *this album*. Similarly in (165A’), the particular soup of the day is a subtype of the type “soup.”

Some linguistic forms require assumed familiarity. Topicalized NPs are one of them (cf. Gundel 1985; Prince 1981a, 1981b, 1985): that is, preposed NPs need some kind of antecedent, either from an evoked entity or from an entity which is in a poset relation to the entity which Topicalized NP refers to. Reflexive anaphors are another linguistic form which requires antecedents; in this case, the antecedent must occur within the same clause. LD-anaphors exemplified in (161a-h), which seem to violate the syntactic principle for reflexive pronouns (i.e., antecedent which C-commands it), have their antecedents in the

clause in which they occur, if viewed from the poset relation perspective: that is, an entity which is in a poset relation to the entity to which the reflexive pronoun refers serves as an antecedent. Thus, it fulfills the requirement of assumed familiarity. For example, in (161a), *Mary* which is in a poset relation to *himself* (by the second definition of Posets in (163)) serves as an antecedent to *himself*.

Outbound anaphors show that the familiarity of a discourse entity can be increased to the degree that outbound anaphora can be felicitous, when the entity stands in contrast to some other discourse entity. In other words, the entity referred by the word-internal antecedent becomes sufficiently accessible at the time of the utterance due to the semantic and pragmatic factors such as contrast or topicality, and LD anaphors in English show that contrast is just one type of a poset relation. Thus, we can generalize that an entity which is in a poset relation to the entity which the anaphor refers to can serve as an antecedent. This is not an isolated phenomena in English. In what follows, I shall show that *nun*-marked topics in Korean and *wa*- marked topics in Japanese also support the above conclusion.

3.4.2.3 *Nun*-marked NPs in Embedded Clauses

It has often been observed that *nun*-marked topics in Korean and *wa* marked topics in Japanese are disallowed in most embedded contexts, as shown by the Korean examples in (166) and Japanese ones in (167)- (168):

(Lee & Im 1983)

- (166) a [kaul-i /-*un o-nun soli-ka] NP tulli-n-ta.
Autumn-NOM/-TOP come-PRES sound-NOM hear-PRES-DECL
'The sound of autumn coming can be heard.'
- b [ney cwucang-i /-*un olh-ass-um-ul] NP wuli-nun
your claim-NOM/-*TOP right-PAST-COMP-ACC we-TOP

nacwung-ey-ya kkaytal-ass-ta.
end-in-only realize-PAST-DECL

'Only in the end did we realize the rightness of your claim.'

- c [kyewul-i /-*un o-myen] CP pom-i mel-ci anh-ta
winter-NOM/*TOP come-if spring-NOM far-NOML not-DECL

'If winter comes, spring is not far off.'

(Kuno 1972: 291)

- (167) a. John-wa sono hon-o yonda
John-TOP this book-ACC read
'John read this book.'
- b. Kore wa [John ga/*wa yonda] hon desu
this-TOP read book is
'This is the book that John read.'
- (168) a. Kuzira-wa honyuu-doobutsu de aru.
whale-TOP mammal is
- b. * Kuzira-ga honyuu-doobutsu de aru.
whale-NOM mammal is
'A whale is a mammal.' (both a and b)
- (169) a. * [Kuzira-wa honyuu-doobutsu de aru] koto-wa yoku shirarete iru.
whale-TOP mammal is fact-TOP well known is
- b. [Kuzira-ga honyuu-doobutsu de aru] koto-wa yoku shirarete iru.
whale-NOM mammal is fact-TOP well known is
'The fact that a whale is a mammal is well known.' (both a and b)

However, it has been pointed out that some embedded clauses do allow *nun*-marked topics in Korean as in (170) and *wa*- marked topics in Japanese as in (171):

(Whitman 1989: 346)

- (170) a. Chelswu-nun, [sayngsen-un taykwu-ka coh-ta-ko] CP hay-ss-ta.
Chelswu-TOP fish- TOP cod-NOM good-DECL-COMP say-PAST-DECL
'Chelswu said that as for fish, cod is the best.'
- b. Chelswu-nun, [sayngsen-un taykwu-ka coh-ta-nun-kes-ul] CP
Chelswu-TOP fish-TOP cod-NOM good- DECL-ATT-COMP-ACC
palkyenhay-ss-ta.
discover-PAST-DECL
'Chelswu discovered that as for fish, cod is the best.'

(Kuno 1972:296)

- (171) [Sakana-wa tai-ga ii] koto -wa akiraka da.
fish TOP red-snapper-NOM good fact-that TOP is obvious
'It is obvious that as for fish, red-snapper is the best.'

On the basis of such data, Whitman (1989) proposes that topic phrases are limited to just those embedded contexts in Japanese and Korean where modals are also possible, and that this fact can be explained by the hypothesis that topic phrases occupy the SPEC position of the projection headed by a modal element. In Chapter 2, however, we saw that Whitman's hypothesis cannot be maintained. Let us take a closer look at these embedded contexts.

Recall sentence (169a) repeated as (172) below:

- (172) * [Kuzira wa honyuu-doobutu de aru] koto-wa yoku shirarete iru
whales- TOP mammals is fact-TOP well known is
'It is well known that whales are mammals.'

Now, imagine the following scenario: A mother is scolding her child, who came back from school with a poor score on his biology test and one of the questions the child got wrong is about whales. The mother says,

- (173) [Kuzira wa honyuu doobutu de aru] koto-o kimi-wa shira-nakatta ka

whales-TOP mammals is that-ACC you-TOP know-NEG-PAST-Q
 'Didn't you know that whales are mammals?'

In this context, where *kuzira* 'whale' has been the topic, (173) is much better than (172) and many native speakers accept it. Consider the following Korean sentences from the advertisements for Christian publications about prayer:

- (174) Ceca-nun [kito-la-n sayngmyeng-uy hohup-i-m ul] ciksiha-mye
 author-TOP prayer-TOP life -of breathing-be-COMP-ACC observe-and
 sayngmyenglyek iss-nun kitolon-ul cenkayha-n-ta.
 power of life be-PRES theory of prayer-ACC develop-PRES-DECL
 'Emphasizing that prayer is the breath of life, the author develops an
 invigorating theory of prayer.'

Here, *kito* 'prayer' is the topic of the whole page in which publications about prayer were advertised. Thus, topicality renders the embedded topic in (174) felicitous.⁸¹ The following example in (175) shows that a *nun*-marked topic can occur even in a relative clause in which, Whitman claims, clause-final modals *-ta*, *-ca*, *-kwun*, etc. may not occur and therefore topics are disallowed:

- (175) [[kito-nun salm-uy thayto-i-mye cwunim-kwa-uy kyocey-i-ko
 prayer-TOP living-of attitude-be-and Lord-with-of fellowship-is-and
 yengcek wuntong- i- m- ul] seltuklyek-iss-key kangcoha-ko-iss-nun]
 spiritual movement-be-COMP-ACC convincingly emphasize-be- PRES
 i chayk-un kito-ey kwanhan tto hana-uy cwumoktoy-nun kyocay-i-ta.
 this book-TOP prayer-about another one-of noteworthy text-is-DECL
 'This book, which convincingly emphasizes that prayer is an attitude of
 living, fellowship with the Lord, and a spiritual movement, is yet another
 noteworthy textbook.'

⁸¹ The fact that this sentence is a copular sentence (i.e., A is B) also contributes to the acceptability.

Another context in which *nun /wa* is allowed in embedded clauses is when the two constituents are contrasted. With regard to this, Japanese and Korean show exactly the same behavior. Observe the following contrast between (167b) repeated here as (176b) and (177):

- (176) a. John-wa sono hon-o yonda
 John-TOP this book-ACC read
 'John read this book.'
- b. Kore-wa [John ga / *wa yonda] hon desu
 this-TOP read book is
 'This is the book that John read.'
- (177) Kore-wa [John-wa yonda ga Mary-wa yomanakatta] hon desu
 this-TOP read but did-not-read book is
 'This is the book that John read but Mary didn't.'

Kuno states that (177) is grammatical because *John* is in contrast with *Mary*.⁸² However, saying that (177) is grammatical because *John* is in contrast with *Mary* merely describes the fact. It is not explanatory. Why does "being in contrast" suddenly make the sentence felicitous? The context in which (176a) might be uttered is when *John* has been talked about or implied. In other words, *John* has the antecedent in the discourse to anaphorically refer to, hence the grammaticality of (176a). On the other hand, the context in which (176b) might be uttered is when *John* has not been talked about. Even if *John* has been talked about or implied, the topicality of *John* in the discourse is not salient enough to penetrate the clause boundary of the embedded clause in (176b), because in (176b) *the book* is the topic of the current discourse. Consequently, *John wa* does not have an

⁸² He also states that "in subordinate clauses, the thematic *wa* is obligatorily transformed to *ga*, while the contrastive *wa* remains as it is" (Kuno 1972: 290). This statement suggests there are two kinds of *wa*.

antecedent, hence the ungrammaticality of (176b). However, in (177) *John* is in contrast with *Mary*. In other words, *Mary* and *John* are co-elements in a poset. Thus, the second argument of *wa* is saturated by the other NP which is in contrast with the NP. The argument saturation of *wa* in the sentence (177) is represented as (178):

(178) [John wa [y, x] yonda ga Mary wa yomanakatta] hon desu

Observe the following Korean examples which show the same pattern:

- (179) a. Ku sihem- i [John *un / i tteleci-n] sihem ita.
 that exam-NOM John-*TOP/NOM fail-PAST MOD exam is
 'That exam is the one that John failed.'
- b. Ku sihem- i [Mary-nun hapkyekha-ko John-un tteleci-n] sihem ita
 that exam NOM Mary-TOP pass and John-TOP fail-PAST MOD] exam is
 'That exam is the one that Mary passed but John failed.'

Hoji (1985) said that even though a contrasted element does not occur explicitly the sentence is felicitous, if the context allows the *wa*-marked phrase to be interpreted contrastively, that is, if an entity which is in contrast with the *wa*-marked phrase is salient in the discourse. Hoji's example is given in [(180)]:

(Hoji 1985: 147)

- (180) John-ga [np [s Bill-WA /*-wa Mary-ga sasotta] baa]-e itta.
 John-NOM Mary- NOM invited bar-to went
 'John went to the bar where Mary invited Bill.'
 '* John went to the bar where, as for Bill, Mary invited him.'

However, sentences such as (180) are normally unacceptable unless the immediate context provides an entity which is clearly in contrast with the *wa*-marked NP and the marker *wa* is heavily accented.

Natural languages have various syntactic forms which require assumed familiarity or accessibility of the discourse entity as a felicity condition (e.g., preposing in English). There are many ways in which a discourse entity can acquire assumed familiarity (cf. Prince 1981a, 1981b, 1991; Horn 1986). The two phenomena we have observed, outbound anaphora and LD- anaphora in English, show that a discourse entity can be assumed to become familiar or accessible through an entity which is in a poset relation to that entity. This is because an entity which is in a poset relation to the entity can serve as the antecedent as felicitously as an evoked entity. The phenomenon of embedded topic clauses in Japanese and Korean also supports the generalization that a discourse entity can acquire assumed familiarity through another entity which is in a poset relation to that discourse entity.

Previous semantico-pragmatic accounts of the Japanese marker *wa* maintain that the phrase marked by *wa* represents “given / old” (Chafe 1970, Kuno 1972;1973), “identifiable” (Iwasaki 1987), “assumed familiarity” (Hinds 1987), “set-anaphoric” (Miyagawa 1987), and “contrastiveness” (Kuno 1973). Previous studies on the Korean marker *nun* also argue that *nun* represents *selo talum / tayco* ‘difference / contrastiveness’ (Choy 1961: 599; Shin 1975; Sohn 1986; Chay 1976; Yang D.WH. 1975; Bak 1981; Seng 1984, 1985) *tayco cek taylip* (Im 1972), *cwucey* ‘topic’ or *kwucengpo* ‘old / given information’ (Ree, J. N. 1974, Chay 1976, Yang D. WH. 1975, Bak 1981), ‘only concerned’ (Yang I.S. 1973),⁸³ and

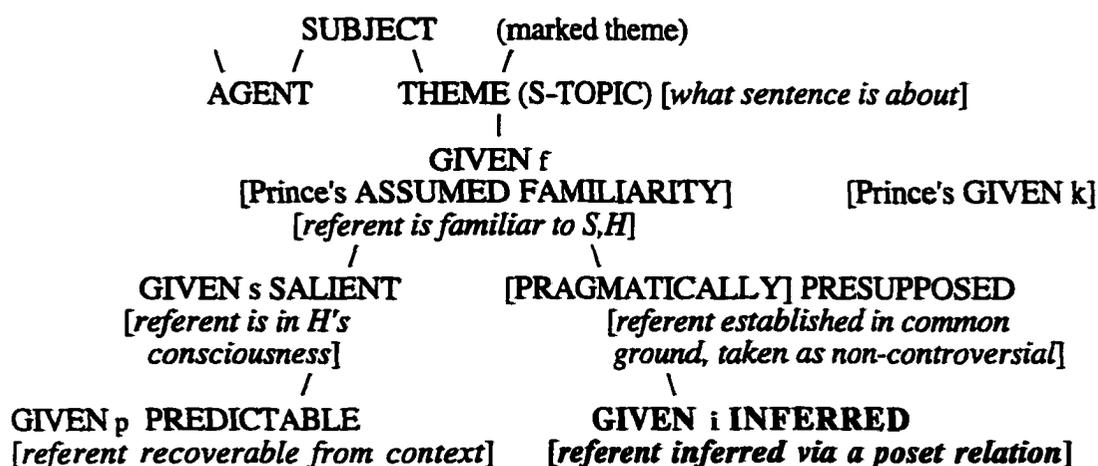
⁸³ In Yang 1973, the semantics of *nun* is defined as follows:

- (1) Presupposition: a. The *nun*-attached element is known or registered.
b. Sister members explicitly or implicitly exist.
- (2) Assertion: The *nun*-attached element is only concerned in an act or event.
- (3) Implication: a. The registered or expected sister members do not have the same value as the *nun*-attached element.
b. The unregistered or unexpected sister members are neutral.

chongchingseng 'genericity' (Ree, J.N. 1974). However, none of these analyses capture the link between contrast and the familiarity of the discourse entity. Some researchers, who found that the two usages of the marker, topic and contrast, are not entirely separable, sidestep the baffling problem simply by stating that the contrastive use is a subcase of the topic use or vice versa (cf. Nah 1986).

Two phenomena, outbound anaphora in English and the topic phrases in embedded clauses in Korean and Japanese, confirm the correlation between familiarity and contrast. That is, the discourse entity acquire assumed familiarity when the entity is in contrast through a poset relation to some other entity in the discourse. The LD anaphors exemplified in (161a-h) also involve some sort of poset relation such as contrast or comparison. All these constructions point toward the conclusion that the relation between "the assumed familiarity" and "poset relation," of which contrast is one type, seems to be a universal linguistic phenomenon. Thus, what is inferred through a poset relation is presupposed: it is treated as a referent established in common ground. What is presupposed is assumed to be familiar. Given the relation between the poset relation and the assumed familiarity of a discourse entity, I propose the following new version of the givenness tree:

(181) **The New Givenness Tree**



several influential studies, including Kuno (1972, 1983, 1987), Zribi-Hertz (1989) and Reinhart & Reuland (1991), have shown that LD anaphors are generally logophoric: that is, these reflexive pronouns serve the “internal narrative point of view,” although their logophoricity does not take the same grammatical form in all languages.⁸⁵

Sells (1987) brings the notion of logophoricity into microscopic view by breaking it into three primitive roles of “source,” “self,” and “point of view (called PIVOT).” The role of source is the “source” of the communication. The following contrast in (183a) and (183b) in Icelandic explains the ‘source’ notion (Maling 1984):

- (183) a. Hann_i sagðo [að sig_i vanta i hafilekika].
 he said that self lacked ability
 ‘He_i said that he_i lacked ability.’
- b. * Hann_i var sagt [að sig_i vanta i hafilekika].
 he_i was told that self lacked ability
 ‘He_i was told that he_i lacked ability.’

The role of “self” represents the one whose mental state or attitude of the content of the proposition is being reported. The distribution of the Japanese reflexive pronoun *zibun* in the following sentence (184) is a case of the role of “self”: the content of the proposition describes the mental state of Mitiko:

(Sells 1987: 453)

- (184) [Yosiko- ga zibun_i-o nikundeiru koto] -ga Mitiko_i -o

⁸⁵ On the basis of two of Jane Austin’s novels, *Sense and Sensibility* and *Pride and Prejudice*, Baker (1995) claims that at least in the English of Austin and other British writers, locally free reflexives are best analyzed not as logophoric anaphors but as intensified nonnominative pronouns, subject to conditions that regulate English intensive NPs generally: (a) a contrastiveness requirement and (b) a requirement that the character being referred to is more important or more central than other characters included in the contrast set.

Yosiko-NOM self_i-ACC be-hating that-NOM Mitiko_i-ACC
 zetuboo-ni] oiyatta.
 desperation-to drove

'That Yosiko hated her_i drove Mitiko_i to desperation.'

The role of "pivot" or "point of view" is the one with respect to whose (space-time) location the content of the proposition is evaluated. This can be best illustrated by the following example of Cantrall that Zribi-Hertz (1989) quoted:

- (185) a. The women_i were standing in the background, with the children behind them_i.
 b. The women_i were standing in the background, with the children behind themselves_j.

Cantrall asks us to imagine that these sentences describe a photograph in which the standing women have their backs turned to the camera. It then becomes clear that (185a) and (185b) do not have the same informative content: the children of (185b) are necessarily located 'behind the women' FROM THE POINT OF VIEW OF THE WOMEN — that is, behind the women's backs, and consequently in the foreground of the picture; by contrast, the children of (185a) may be located 'behind the women' FROM THE VIEWPOINT OF THE SPEAKER, therefore in the background of the picture and actually in FRONT of the women. (Zribi-Hertz 1989: 704).

With these three aspects of logophoricity in mind, let's look at the sentence (repeated as (186) below) from the Japanese children's story book called *Tsuribashi Yurayura* 'Hanging Bridge'. As far as I know, it was Watanabe who first employed the notion of DEICTIC CENTER (i.e., the spacio-temporal locus of the object and events in narrative, but it also incorporates psychological frameworks in the narrative, i.e., viewpoint) in accounting for the shift of *wa* and *ga* in the Japanese narrative. The notion of deictic center is identical to the role of "pivot" and "self" here. In the story, Baby Fox, Baby Bear, and Baby Rabbit came to a hanging bridge. They had never crossed the bridge before. There came Uncle Boar across the bridge, and they heard from him that a Baby

Girl Fox was living on the other side. They wanted to cross the bridge, but they were afraid. That night in bed, Baby Fox talks to himself, and imagines himself crossing the hanging bridge:

(Baby Fox opened his eyes wide in the dark.)

- (186) “Yurayura yurayura-tte boku....”
Swinging (onomatopoeic)-quote I
- Yami-no naka-ni tsuribashi-ga ukabi, sono ue-o
darkness-GEN in-DAT hanging bridge-NOM emerge & that surface-ACC
- kowagowa wata-tteyuku, jibun-no sugata-ga mieru-yoodeshita.
timidly cross-go and self-GEN figure-NOM be visible-seem-PAST
- Kitsune-no ko-wa awatete me-o tsuburi-mashita.
fox-GEN kid-WA in a hurry eye-ACC close-PAST
- “Swinging swinging and I...”
(The) hanging bridge appeared in the darkness, and the picture of himself timidly crossing it was almost visible. Baby Fox closed his eyes in a hurry (p.32-33).

Watanabe (1990) suggests that the experiencer of seeing the bridge in the dark has to be interpreted as the *wa*-marked nominal, Baby Fox, and not any other character in the story:

The reader is seeing the event through a “filter,” which is Baby Fox at this point of the story. Baby Fox with *WA*-marking serves as not only a physical but also psychological reference point for interpretation of the text, and therefore the vision is understood as what is happening within Baby Fox’s mind (Watanabe 1990: 136-137).

In (186), the marker *wa* clearly plays the role of reporting the psychological state of Baby Fox and it enables the reader to view the bridge from the viewpoint of Baby Fox. This is possible because the logophoric use of the marker links to Baby Fox in virtue of the fact that in logophoric sentences the second argument of *wa*, *x*, is associated with one of the three aspects: source, self, point of view. This function of the marker in Japanese narrative has also been described under the notion “staging” (narrator’s manipulation of thematization) in Maynard (1987). Although Maynard states that NP *ga*, instead of NP *wa* is often used to describe the action as observed from the point of view of the thematized

participant (Maynard 1987: 62),⁸⁶ she seems to express the similar point, i.e., logophoric use of the marker *wa*:

“Staging”...refers to the narrator’s manipulation of thematization (including non-thematization) when narrating a story. Through this “staging” strategy, a narrator accomplishes an organization of narrative information in accordance with his / her perspective... Another aspect of the thematization function involves narrative point of view. In the sense proposed by Kuno and Kaburaki (1977), the reader more readily has empathy with a thematized participant than with a non-thematized one... NP *ga* is often used to describe the action as observed from the point of view of the thematized participant. (Maynard 1987: 61-62)

As mentioned before, the Korean marker *nun* functions in an identical manner. In (5K) repeated as (187) below,

- (187) K. *twu son-ul phyepoi-myense, Kilsangi-nun nangphayhantus*
 two hands-ACC show-while Kilsang-TOP embarrassed
sulphuntus nwun-ul tule Sehyu-lul chyeta po-nta.
 sadly eyes-ACC raise Sehyu-ACC look up-DECL

‘Showing two palms, Kilsang is looking up at Sehyu, embarrassed and sad.’

the event of Kilsang’s looking up at Sehyu is presented from Kilsang’s point of view. In other words, the reader is able to put himself in the viewpoint of Kilsang because of the logophoric use of the marker *nun*. The logophoric use of the marker does not exist in spoken language. It exists only in written language as a device to represent third person’s point of view. If someone describes Kilsang’s looking up at Sehyu in daily conversation, *Kilsang* must be marked by the Nominative *ka*. (*Kilsangi-ka Sehyu-lul chyeta po-nta* ‘Kilsang is looking at Sehyu’).

I have maintained in this chapter that the postpositional markers *wa* in Japanese and *nun* in Korean are fundamentally a marker for presupposition in the sense that it refers anaphorically to the previous information. This analysis, thus, implies that the so-called

⁸⁶ NP *ga* seems to be a typo in Maynard 1987: 62. It should be NP *wa*.

topic marker *nun/wa* is not to be distinguished from the contrastive marker *nun/wa*. We have seen that the entire distribution of the marker *nun/wa* cannot be adequately explained by the notion of “old / given” or / and the notion of contrastiveness. In other words, the basic meaning or function is neither “topic” nor “contrastiveness” contra traditional analyses, because the marker appears not just in topic-comment and contrastive sentences but also in generic sentences, denial sentences (i.e., predicate denial), and logophoric sentences.

The core of the analysis of the marker is an argument structure hypothesis: that is, the postpositional marker *nun/wa* has two arguments *y x*, which form the complex of pragmatic presupposition and it is the second argument which is responsible for the presuppositional / anaphoric nature of *wa/nun*-marked constituent. The argument structure hypothesis accounts for the seemingly different functions of the marker with explanatory adequacy.

The tripartite structure has been taken up as the logical structure of Categorical Judgment under which generic sentences, topic-comment sentences and predicate denial sentences (which is discussed in Chapter 4) are subsumed. These sentence structures share the property that they are divided into two parts: the Restrictor, which is outside the assertion scope and the Nuclear Scope which is in the assertion scope.

Having examined various topic-like elements which have been called topic or theme in the literature, I clarified what type of topic the marker is used for: *wa* in Japanese and *nun* in Korean are used only for one type of topic, Link. Three characteristics which distinguish the link type of topic from other types have been stipulated: sentence-initial position, presupposition, topic referent establishing role. The function of the marker in negative sentences will be addressed in the next chapter.

Chapter 4

The Postpositional Marker *nun* and Negation

Korean is rich with many negative morphemes: the imperative negator *mal*, the ability negator *mos*, and the descriptive negator *an(i)*, which occurs both in the short and long form negations, as well as three Sino-Korean negative prefixes *pul*, *pi*, *mu*.¹ Along with the Nominative *i/ka* and the accusative *ul/lul*² the postpositional marker *nun* occurs after a nominalizer *ci* in the long form negation forming negative preemphasizers. In addition to the role of negative preemphasizer, the marker *nun* interacts with negation in various ways. The scope of this chapter will be limited to the examination of the interactions of the marker *nun* with negation and its implication of the argument structure hypothesis of the marker.

Examples which show the function of *nun* in the scope interaction of the negative operator *an(i)* with declaratives, quantifiers, and scalar predicates are given in (1) - (3) respectively and the examples of negative preemphasizer are given in (4):³

- (1) a. Oswald-ka Kennedy-lul cwuki-ci-anh-ass-ta.
Oswald-NOM Kennedy-ACC kill-NML-NEG-PAST-DECL
'Oswald did not kill Kennedy.'

¹ Since the full form *ani* is somewhat archaic and occurs only in a stilted and classic written style, the contracted form *an*, which occurs in the Short Form Negation and *anh* (a contracted form of *ani ha-*), which occurs after the nominalizer *-ci* in the Long Form Negation are used in this thesis.

² The nominative has two shapes: *-I* follows a consonant and the suppletive *-ka* follows a vowel. The accusative also has two shapes: *-ul* follows a consonant and *-lul* follows a vowel.

³ The Nominative case marker, *i/ka* and the Accusative case marker *ul/lul*, and the topic marker *un/nun*, which are inserted after *-ci* in negative sentences to emphasize the adjective/verb, are called negative preemphasizers.

- b. Oswald-nun Kennedy-lul cwuki-ci-anh-ass-ta.
Oswald-TOP Kennedy-ACC kill-NML-NEG-PAST-DECL
'Oswald did not kill Kennedy.'
- (2) a. cikwen cenpu-ka phathi-ey o-ci anh-ass-ta.
employee all-NOM party-to come-NML NEG-PAST-DECL
'All the employees failed to come to the party.'
'Not all of the employees came to the party.'
- b. cikwen cenpu-ka phathi-ey o-ci-nun anh-ass-ta.
employee all-NOM party-to come-NML-TOP NEG-PAST-DECL
'Not all of the employees came to the party.'
- (3) A. Swuni namca chinkwu-ka sey myeng i-lamyey?
Swuni boy friend-NOM three person is-they say
'I heard that Swuni has three boy friends. Is it true?'
- B. a. sey myeng-un ani-ya. twu myeng iya.
three person-TOP not two person is
'It's not three. It is two.'
- b. * Sey myeng-un ani-ya. Ney myeng iya.
three person-TOP not four person is
'It's not three, (but) it is four.'
- (4) a. sinpu-ka yeyppu-ci anh-ta.
bride-NOM pretty-NML NEG-DECL
- b. sinpu-ka yeyppu-ci-ka anh-ta.
bride-NOM pretty- NML-NOM NEG-DECL
- c. sinpu-ka yeyppu-ci-lul anh-ta.
bride-NOM pretty- NML-ACC NEG-DECL
- d. sinpu-ka yeyppu-ci-nun anh-ta.
bride-NOM pretty- NML-TOP NEG-DECL
'The bride is not pretty.'

As indicated in (1a) and (1b), there are two ways of negating the proposition that Oswald killed Kennedy: while *Oswald* is marked by the Nominative *ka* in (1a), it is

marked by *nun* in (1b).[‡] The functional difference between (1a) and (1b) is that (1b) is appropriate for denying the corresponding affirmative — Oswald killed J. F. Kennedy — that has been entertained in the previous discourse, while (1a) is appropriate in two contexts: (i) to say that it is not Oswald but someone else who killed J. F. Kennedy (the rectification may be implicit); (ii) to assert of Oswald that he failed to kill Kennedy. (Imagine a scenario in which a Mafia member, who ordered Oswald to assassinate J. F. Kennedy, found out that Kennedy was still alive. In this context, the Mafia member expresses the proposition that Oswald still did not kill Kennedy in the form of (1a), not (1b)). What factors contribute to such interpretative / functional differences? In pursuing this question, Aristotle’s four oppositions and two types of negation (predicate denial vs. predicate term negation: cf. Horn 1989), and Brentano-Marty’s two modes of judgment (categorical vs.thetic judgments) are explicated.

While (2a) is ambiguous between “all ... not” and “not ... all” readings, (2b) has only the “not ... all” reading. The disambiguation must be attributed to the marker *nun*. The examples in (3Ba) - (3Bb) show us the interaction of *nun* with scalar predicates. Why is (3Ba) grammatical but not (3Bb)? The paradigm of (3Ba)-(3Bb) is reminiscent of the concessive *but* in English involving negation (e.g., *We don’t have three children, but we*

‡. Korean sentences can be negated in two ways: the Long form, in which the predicate is attached by a nominalizer *ci* (‘suspective’ in Martin) followed by a negative adverb *ani* ‘not’ + *ha* ‘do’ (*ani ha* is reduced into *anh* in spelling and pronunciation) and the Short form, in which *an* precedes the predicate. Both forms can occur with most verbs and adjectives. Thus, each of (1a) and (1b) can be negated in the Short Form Negation also:

(1a’) Oswald-ka Kennedy-lul an cwuki- ass-ta.
Oswald-NOM Kennedy-ACC NEG kill -PAST-DECL

(1b’) Oswald-nun Kennedy-lul an cwuki -ass-ta.
Oswald-TOP Kennedy-ACC NEG kill -PAST-DECL

‘Oswald didn’t kill Kennedy.’

However, the distinction between the two forms of negation — the differences in terms of meaning, scope, use or underlying form (if there is any, which itself is also controversial) — is irrelevant for the functional difference which I am discussing here.

do have two / # but we do have four (Horn 1989:404)). What is the implication of this phenomenon on the nature of negation in natural language? How is it related to the argument structure of *nun*? The examples in (4a-d) illustrate that *nun* occurs in negative preemphasis position along with the Nominative *i/ka* and the Accusative *ul/lul*. What is the function of *nun* in the preemphasis position? How is the case marker preemphasis different from the *nun* preemphasis? These questions are investigated in this chapter.

4.1 *nun* vs. *ka* : Contradiction vs. Contrariety and Privation

Four species of opposition are distinguished by Aristotle in the *Categories* (*Cat* 11b17 : cf. Horn 1989):

CORRELATION (between two RELATIVES), e.g., *double vs. half*

It involves the interdependence of reference: A is double of B if and only if B is the half of A.

CONTRARIETY (between two CONTRARIES), e.g., *good vs. bad*

While two contraries cannot both apply at once, they allow the non-excluded middle which is not extreme. e.g., the case which is neither good nor bad.

PRIVATION (PRIVATIVE vs. POSITIVE), e.g., *blind vs. sighted*

Privatives and positives apply to the same subject which is capable of some particular faculty or possession.

CONTRADICTION (AFFIRMATIVE vs. NEGATIVE), e.g., *He sits vs. He does not sit*.

A two-fold criterion distinguishes the contradictory relation — statements opposed to each other as affirmation and negation — from the other classes of opposition: (1) Contradiction is restricted to statements or propositions. (2) It is necessary for the one to be true and the other false [Law of Excluded Middle]. In other words, contradictories do not belong at the same time to the same thing [Law of Contradiction].

If we analyze (1a) and (1b) with respect to its corresponding affirmative proposition that Oswald killed Kennedy in terms of these four types of opposition, we find that the opposition relation between the negative sentence with the Nominative (1a) and its corresponding affirmative one (5) below on the one hand,⁵ and the opposition between the negative sentence with *nun* (1b) and its affirmative one (5) on the other are not the same:

- (5) Oswald-ka Kennedy-lul cwuki-ess-ta.
 Oswald-NOM Kennedy-ACC kill-PAST-DECL
 ‘Oswald killed Kennedy.’

Under the first reading of (1a), which asserts that it is not Oswald but someone else who killed Kennedy, the opposition is between the two terms, “Oswald” and “someone else.” Therefore, in the case where Kennedy was alive or Kennedy died of a natural cause, both (1a) and (5) are false. In other words, there is a non-excluded middle between (1a) and (5). Thus, the opposition relation between (1a) and (5) is contrariety. Under the second reading of (1a), in which the failure of killing activity is asserted of Oswald (i.e., non-performance of the plotted assassination), (5) would be false and (1a) would be true. In this context, the opposition relation between (1a) and (5) is privation in the extended sense⁶ because (1a) and (5) expresses the absence and presence of some faculty (i.e., killing action) which is supposed to occur in Oswald by the context (i.e., the plot of assassination).

On the other hand, the statement in (1b) is ABOUT Oswald: *Oswald nun* is the link of the sentence (cf. Chapter 3) and the link is what the sentence is about. Thus, regardless of the status of Kennedy’s life (or death), either (1b) is true and (5) is false or (1b) is false and (5) is true. The former would be the cases in which either Kennedy was alive (or died

⁵ The sentence (5) should be read with neutral description that Oswald killed Kennedy, not with the exhaustive reading that it is Oswald that killed Kennedy

⁶ Basically, privation in Aristotle’s sense applies to properties naturally possessed by certain entities.

of a natural cause) or someone else killed Kennedy and the latter would be the case in which Oswald killed Kennedy. There is no possibility in which both (1b) and (5) are false at the same time. The opposition relation between (1b) and (5) is contradiction and the two statements are opposed as affirmation and negation. Thus, we can say that the marker *nun* in the link induces contradiction relation with regard to its corresponding affirmative one. However, unlike the case of “the king of France” in (6) below (cf. Horn 1985, 1989):

(6) The king of France is not bald.

the problem of presupposition failure (i.e., When France is a republic, the existential presupposition of the king of France fails) does not arise in (1b), because the marker *nun* in (1b) commits the speaker to recognize the existence of Oswald. Thus, the negation does not cancel the presupposition.⁷

What can these differences be attributed to? In pursuing this question, I shall discuss Aristotle’s two negations, PREDICATE DENIAL vs. PREDICATE TERM NEGATION (cf. Horn 1989) and Brentano and Marty’s two modes of judgment.

4.2 *nun* vs. *ka* : Predicate Denial vs. (Predicate) Term Negation

In *Prior Analytics*, Aristotle made a distinction between the two types of negation: PREDICATE DENIAL and (PREDICATE) TERM NEGATION. In addition to two types of negation, there are two modes of predication. In Aristotle’s term logic (cf. Sommers 1970; Englebretsen 1981a, 1981b) every (simple) proposition is categorical, consisting of something (the SUBJECT) about which something (the PREDICATE) is affirmed or denied. Subject and predicate can be combined by two different MODES OF PREDICATION,

⁷ The only possible way to cancel the presupposition in this case is by nominalizing the whole sentence using *-nun kes-i ani* ‘It’s not that ...’ or by adding *-ta nun kes un mal-i an toy* ‘It’s nonsense to say that...’ to the whole sentence.

(PREDICATE) AFFIRMATION — *A is B* — in which the predicate is affirmed of its subject and (PREDICATE) DENIAL — *A is not B* — in which the entire predicate is denied of the subject resulting in contradictory negation: It is true if and only if the corresponding affirmation, *A is B* is false (e.g., *Socrates is not ill* is true if *Socrates is ill* is false whether because Socrates is healthy or because Socrates does not exist).⁸ On the other hand, TERM NEGATION focuses on, and is often incorporated into, a particular subsentential constituent. For instance, a negative predicate term (*not-ill*) is affirmed of a subject (e.g., *Socrates is not-ill*). The two modes of predication and two types of negation are not distinguishable in propositional logic but only in term logic. This is why term logic can be evaluated to be superior to propositional logic because term logic represents more closely the behavior and structure of negation in human language (cf. Horn 1989).

While every proposition is categorical in term logic, two types of judgments are distinguished in the philosophy of Franz Brentano (1973) and his student Anton Marty: *categorical* and *thetic* are two different modes of presentation by a cognitive agent. The logical dichotomy of two modes of judgment is defended by Kuroda (1972, 1992) in his characterization of *wa* and *ga* in Japanese: *wa*-marked sentences are a reflex of categorical judgment and *ga*-marked sentences, of thetic judgment (cf. Chapter 2).

Babby (1980) reinforces Kuroda's defense by claiming that genitive vs. nominative subject NP case marking in Russian negated intransitive sentences is strong evidence for the semantic distinction between categorical vs. thetic judgment. As noted in Chapter 3, a subject NP in Russian negative sentences is marked genitive if it is in the scope of negation. In NDS (Negative Declarative sentences), the subject NP is one part, which is outside the scope of assertion / negation and often carries an existential presupposition and

⁸ Thus, for Aristotle, denying a predicate of a nonexistent subject results in a true statement (e.g., *Socrates is not ill*). For more about the relation between term logic and the four oppositions, see Horn 1989 : 8-45.

the VP is the other part, which is in the scope of assertion / negation and makes its assertion about the subject. In contrast to the bipartite NDS, the subject NP and the VP in NES (Negative Existential sentences) are both in the scope of assertion / negation. Thus, while the subject NP in NDS is marked nominative, the subject NP in NES is marked genitive.

Given this analysis, the difference between NDS and NES in Russian realized by the dichotomy of the Nominative vs the Genitive case marking can be considered as a morphosyntactic reflex of the logical difference of the two judgment forms. However, one thing to be cautious about is that there is not always a correspondence between the logical structures and the surface syntactic structures of sentences. In fact, athetic judgment, which is a monopartite structure semantically, often corresponds to a bipartite subject-predicate form in syntax. Therefore, the syntactic bifurcation should not be equated with the Subject-Predicate structure of categorical judgment. The conflation of the syntactic bifurcation of subject-predicate form with the logical / cognitive bifurcation of subject-predicate in categorical judgment often results in confusion.

In Chapter 3, I have analyzed the NP marked by *nun /wa* in initial position as the link of the sentence. The link-focus structure, whose morphosyntactic realization might vary in languages, is categorical in nature, with the link corresponding to the subject of the categorical judgment. Given this, while (1a) repeated below as (7a) is term negation,

- (7) a. Oswald-ka Kennedy-lul cwuki-ci-anh-ass-ta.
 Oswald-NOM Kennedy-ACC kill-NML-NEG-PAST-DECL
 ‘It is not Oswald who killed Kennedy.’
 ‘Oswald failed to kill Kennedy.’

(1b) repeated below as (7b),

- (7) b. Oswald-nun Kennedy-lul cwuki-ci-anh-ass-ta.
 Oswald-TOP Kennedy-ACC kill-NML-NEG-PAST-DECL
 ‘Oswald didn’t kill Kennedy.’

is a mode of categorical judgment, which denies the association of the subject *Oswald* and predicate *killing of Kennedy*. In other words, it is predicate-denial. On the other hand, the scope of negation in (7a)—the function of which is either (i) to assert that it is not Oswald but someone else who killed Kennedy, or (ii) to assert of Oswald that he failed to kill Kennedy—is limited to the term it negates: In the first interpretation, the negation focuses on a subsentential constituent, *Oswald*,⁹ while, in the second interpretation, a negative term *not-killing* is affirmed of the subject, *Oswald*.

The distinction between affirming a negative term (term negation) and denying a positive term (predicate denial) was signaled by word order in the writings of Aristotle and his Greek and Latin commentators. Thus, the contrast between the two negations in copular sentences was more literally that between (8a) and (8b) (cf. Horn 1989:15):

- [(8)] a. Socrates ill not is. (i.e. Socrates [is not / isn't] ill. : Predicate Denial)
 b. Socrates not ill is. (i.e. Socrates is [not ill]. : Term Negation)

In Korean and Japanese, the subject in predicate denial must be marked by *nun* and *wa* respectively, while the subject in term negation is marked by the Nominative case except for cases like the affixal negation of individual predicates (e.g., *sokhulatheysu-nun pulhaynghata* 'Socrates is unhappy'). The morphosyntactic realization of the two types of negation supports the claim that there exists a crucial distinction between affirming a negative term and denying a positive term. It also strengthens the conclusion in Horn (1989) that the notion of sentential negation should be identified with the device for combining subject with predicate rather than the one-place external propositional connective. Since all propositions are categorical in Aristotle's term logic, term negation is

⁹ To put it Aristotle's way, [Not-Oswald] killed Kennedy. This is an instance of subject-term negation.

also categorical in Aristotle's sense. However, whether or not term negation is categorical in Brentano-Marty's sense is certainly an issue. (I will return to this later). The distinction between affirming a negative term and denying a positive term is realized not only morpho-syntactically but also discourse-functionally in Japanese and Korean.

McGloin (1972, 1987:168-170) states that *wa*-marked negative sentences in Japanese are appropriate where the corresponding affirmative is [assumed],¹⁰ while non-*wa*-marked negative sentences often occur discourse-initially without prior mention of the corresponding affirmative. Thus, *wa*-marked negation is appropriate in the context of (9) or (10):

(McGloin 1987:168)

- (9) A: kesa kusuri-o non-da deshoo-ne.
 this morning medicine-ACC drink-PAST probably-EXCL
 'You took the medicine this morning, didn't you?'
- B: kusuri [wa] nom-ana-katta.
 medicine [*o] drink-NEG-PAST
 'I didn't take the medicine.'
- (10) kino-wa atama-ga itakute, benkyooo deki-na-katta.
 yesterday-TOP head-NOM hurt study can-NEG-PAST
 'Yesterday, I had a headache and so I could not study.'
- demo, kusuri [wa] nom-ana-katta.
 but medicine [*o] drink-NEG-PAST
 'But, I did not take the medicine.'

¹⁰ The use of the word "assumed" here is not appropriate, since in the normal sense of the word it would be very awkward to say that when someone says, "kusuri-wa nomanakatta," they are assuming that they DID take medicine. I take "assumed" to mean "inferred, or mentioned."

However, certain discourse contexts allow both *wa*-marked negation and non-*wa*-marked negation, even though the corresponding affirmative can be inferred from the previous discourse as in (11):

(McGloin 1987:168-9)

- (11) *sumisu-san-wa* *kyonen-no* *kugatsu-ni* *nihon-e*
 Smith Mr.-TOP last-year-of September-in Japan-to
- ikimashi-ta.* *tookyoo-no* *daigaku-de* *benkyoo-o* *shimashi-ta.*
 go-PAST Tokyo-of college-at study-ACC do-PAST
- mainichi* *nihongo-o* *benkyooshimashi-ta.*
 everyday Japanese-ACC study -PAST
- demo* *amari* *terebi* [*wa*] *mimas-en-deshita.*
 but much TV [*o*] see-NEG-PAST

'Last September, Mr. Smith went to Japan. He studied at a university in Tokyo. He studied Japanese everyday, but he didn't watch TV much.'

In such contexts, McGloin concludes, the non-*wa*-marked negation is highly *evaluative*, reflecting the speaker / writer's subjective evaluation of the non-occurrence of an action or non-existence of a state as strange, unusual, or odd, while the *wa*-marked negation is objective and *non-evaluative*. Thus, if the Accusative *o* as opposed to *wa* is used in (11) "it is felt that the speaker / writer is making a certain evaluation that one should have watched TV, because TV, after all, is a useful resource for learning a language" (McGloin 1987:169). Indeed, the speaker's evaluative tone is felt due to the use of the Nominative *ga* in the final sentence of (12) below, *kambotsu ga mi-rare-na-katta* 'There was no depression ...':

- (12) *sarani* *Ishida-kenji-no* *shitai-ga* *hitatteita* *mizu-no*
 moreover Ishida - of body-NOM immersed water -of
- shita-wa* *dorotsuchi-ni* *natteiru ga,* *sono* *dorotsuchi-ni-wa*
 under-TOP mud-at has-become but, that mud- at-TOP

shitai-no omomi -ni-yoru kambotsu- ga mi-rare-na-kattta.
 body of weight by depression-NOM see-PASS-NEG-PAST

'Moreover, there was mud underneath the water in which Ishida's body was immersed. However, the mud did not show any depression from the weight of the body.'
 (Ishida Kenji no Kaishi:17. quoted in McGloin 1987:170)

However, something is missing in McGloin's explanation. To say simply that non-*wa*-marked negation is subjective and evaluative is not explanatory. The missing link can be found in the fundamental distinction betweenthetic vs. categorical judgment. Non-*wa*-marked negation representsthetic judgment and *wa*-marked negation, categorical judgment. Inthetic negation absence of a reference or eventuality as a whole is asserted, while in categorical negation a positive term is denied of the subject, which is presupposed. In other words, predicate denial is a categorical judgment negation, which is partitioned into presupposition and assertion. Since all propositions are categorical in Aristotle's term logic, we should say that predicate term negation is also categorical. However, the notion of categorical in Brentano-Marty's sense is different from that in Aristotle's: while the subject in Brentano-Marty's categorical judgment is characterized in cognitive and pragmatic terms such as presupposition and aboutness (e.g., the recognition of the entity / apprehension of substance: cf. Chapter 3), the notion of subject in the Aristotle's subject-predicate form is grammatical and logical.¹¹ Some grammatical subjects coincide with the subject in Brentano-Marty's categorical sentences, but not all. Thus, some sentences in term negation can be categorical, while all sentences in predicate denial are categorical in Brentano-Marty's sense. On the other hand, non-*wa*-marked negation is alwaysthetic and *wa*-marked negation is categorical in Brentano-Marty's sense. Thus in producing the impression of urgency, surprise or counter-expectation, the assertion of absence of a reference or eventuality as a whole (i.e.,thetic negation) has stronger effect than the denial of the property to the subject which is outside the assertoric scope, and hence taken as non-

¹¹ A basically the same but slightly different view on the discrepancy between the subject in Aristotle and that in Brentano-Marty's categorical judgment is expressed in Horn (1989: 509-512) and Moser (1992).

controversial (i.e., categorical negation). The speaker's "evaluative" tone of non-*wa*-marked negation is simply a by-product of this effect ofthetic negation.

4.3 Scope Ambiguity and *nun/wa*

Since 1966, when Song first presented his controversial analysis of Korean negation, the debate on Korean negation has exclusively focused on the syntactic problem of whether the two types of negation — the Short Form Negation (SFN), in which the negator *an(i)* precedes the verb, and the Long Form Negation (LFN), in which the whole sentence is nominalized by a nominalizer *ci* followed by the negator *an(i)* — are derived from one underlying structure (i.e., the single-based hypothesis: cf. Lee 1970, 1972; Oh 1971; Yang 1976; Ryu 1992) or two underlying structures (i.e., the double-based hypothesis: cf. Song 1967, 1979, 1982).¹² The main arguments regarding the above issue have focused on the negative scope of the two types of negation.

Putting aside the detailed controversial arguments, I shall state the following conclusion on the ambiguity issue of the two types of negation on the basis of the survey conducted on twenty-two native speakers.

With regard to the scope interaction involving adverbs and quantifiers such as *manhi* 'many', *twul* 'two', both types of negation almost equally show ambiguity. Thus, both (13a) and (13b) are assigned both the NEG-V¹³ and NEG-Q readings with regard to the quantifier *manhi* 'many':

¹² Another side issue that inevitably accompanied the above problem has been the status of *-ci* which occurs in the long form negation.

¹³ The NEG-V reading, in which the negative scope is limited to the verb, is referred to as the Q-NEG reading in some studies.

- (13) a. sonnim-i manhi an o-ass-ta.
 guest-NOM many NEG come-PAST-DECL
- b. sonnim-i manhi o-ci anh-ass-ta.
 guest-NOM many come-ci NEG-PAST-DECL

(a) 'Many guests failed to come.' (NEG-V)

(b) 'Not many guests came.' (NEG-Q)

However, three things should be pointed out regarding the scope ambiguity: (i) In order to get the NEG-Q reading in sentences like (13a) and (13b) two prosodic features are required: a heavy accent and the rise intonation on the last syllable of the constituent before *ani* (e.g., on *-hi* in *manhi* 'many' in the case of (13a) and on *-ci* in the case of (13b)) must be placed as a signal indicating that the focus of negation is the quantifier *manhi*; (ii) The manipulation of the above contour is a bit more difficult in the case of the SFN because the constituent before *ani* is one word in the SFN, while the constituent in the case of the LFN is a combination of the verb plus *-ci* and hence it is easier to break and place a heavy accent on *-ci*. People tend to use the long-form negation to produce NEG-Q reading probably for this reason; (iii) An equal competing tendency is that Short Form Negation is more frequently used in daily conversation, partly because it is short (hence takes less effort) and probably also because of Jespersen's Neg First Principle,¹⁴ "which expresses the strong tendency for negative markers to gravitate leftward so as to precede the finite verb or other possible foci of negation" (Horn 1989: 452). I believe that all of these factors as well as pragmatic factors such as formal / informal situation and speaker's age have contributed to the long dispute among researchers regarding the scope issue of these two types of negative sentences involving adverbs and quantifiers.

The universal quantifier, *ta* 'all' or *cenpu* 'all of them', also shows the scope ambiguity with respect to both types of negation:

¹⁴ The principle is Jespersen (1917)'s but the name is Horn's.

- (14) a. cikwen-i ta/ cenpu phathi-ey o-ci anh-ass-ta.
employee-NOM all party-to come-NML NEG-PAST-DECL
- b. cikwen-i ta/ cenpu phathi-ey an o-ass-ta.
employee-NOM all party-to NEG come-PAST-DECL

'None of the employees came to the party. (NEG-V)'

'Not all employees came to the party. (NEG-Q)'

Thus, both the NEG-V reading and the NEG-Q reading can be assigned to both (14a) and (14b). In the case of SFN as (14b), however, the degree of difficulty to obtain the NEG-Q reading varies among speakers, just like *all ...-n't* in English, in which the availability of the wide scope NEG-Q interpretation is more or less difficult for different speakers. (e.g., *All the cookies weren't eaten* cf. Horn 1989: 490-1)

In Japanese, a somewhat more complex situation prevails. When the universal quantifier occurs as the subject attached by the Nominative *ga*, only the NEG-V reading is assigned. Thus, (15a),(15b), and (15c) have only the narrow scope predicate term negation:

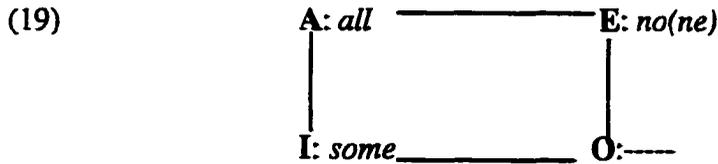
- (15) a. zen'in-ga repooto-o das-a-na-katta.
all people-NOM report-ACC hand in-NEG-PAST
- b. zenbu-ga repooto-o das-a-na-katta.
all -NOM report-ACC hand in-NEG-PAST
- c. minna-ga repooto-o das-a-na-katta.
everybody -NOM report-ACC hand in-NEG-PAST

'All people failed to submit the report.'

However, if the universal quantifier occurs after the subject as a modifying quantifier as in (16) below, although the NEG-V reading is much preferred, the NEG-Q reading is not impossible for many speakers.¹⁵

¹⁵ The NP quantifiers in Korean, *cenwen* 'all of the people' and *cenpu* 'all' that correspond to *zenin* and *zenbu* behave exactly the same with respect to scope.

alternative realization of the $\sim\forall$ value constituting the NEG-Q reading of examples like (18a), on the other hand, involves a relatively unlexicalized O-vertex negative quantifier or determiner, as in (18b): *not all, not everybody, not everything.*”



In Japanese and Korean too, we find lexicalized E-vertex quantifier *daremo* ‘nobody’, *nanimo* ‘none’ (Japanese), *amuto* ‘nobody’ *amukesto* ‘none’ (Korean) etc., but no lexicalized O-vertex negative quantifier or determiner.

However, every language seems to have a way of disambiguating the scope, although the means and ways vary in languages. In English, which allows the free particle negator *not* to move to a non-verbal element rather freely, the NEG-Q reading is secured by positioning the negator in front of the quantifier as in (20):

(20) Not all employees came to the party. (NEG-Q)

In Japanese and Korean, which do not allow the negator to move from its fixed position, the marker *wa/nun* plays a role in disambiguating the scope: the NEG-V reading disappears in Korean when *nun* is attached to either *-ci* as in (21a) or to the quantifier as in (21b) and in Japanese, when *wa* is attached to the quantifier as in (22a) and (22b).

(21) a. cikwen-i cenpu phathi-ey o-ci-nun anh-ass-ta. (Korean)
 employee-NOM all party-to come-NML-TOP NEG-PAST-DECL

- b. cikwen-i phathi-ey cenpu-nun o-ci anh-ass-ta.
 employee-NOM party-to all-TOP come-NML NEG-PAST-DECL

'Not all employees came to the party.' (both a and b)

- (22) a. zen'in-wa repooto-o das-a-na-katta. (Japanese)
 all people-TOP report-ACC hand in-NEG-PAST

'Not all people handed in the report.'

- b. shokuin-ga paati-ni zenbu-wa ko-na-katta.
 employee-NOM party-to all-TOP come-NEG-PAST

'Not all employees came to the party.'

In the case of delimiters such as *man* 'only', the two forms of negation in Korean show asymmetry in the scope. Cho (1975), who first presented the scope problem involving the delimiter *man* 'only', says that a LFN sentence as in (23),

- (23) John-man Mary-lul ttayli-ci anh-ass-ta.
 John-only Mary-ACC beat-ci NEG-PAST-DECL

is ambiguous between the narrow scope as in (24a) and the wide scope as in (24b):¹⁶

- (24) a. John-man [Mary-lul ttayli-ci anh-ass-ta.]
 John-only Mary-ACC beat-ci NEG-PAST-DECL

'Only John did not beat Mary.'

- b. [John-man Mary-lul ttayli-ci] anh-ass-ta.
 John-only Mary-ACC beat-ci NEG-PAST-DECL

'It is not the case that only John beat Mary.'

¹⁶ Out of 14 native informants, 7 people said they prefer the (a) to the (b) reading, 6 said that they get only the (a) reading, and only one said that he gets only the (b) reading. Thus, it is fair to say that (23) is ambiguous between the (a) and (b) readings.

- (26) John-man-un Mary-lul an ttayli-ess-ta.
 John-only-TOP Mary-ACC NEG beat-PAST-DECL
 ‘At least as far as John is concerned, he did not beat Mary.’

does not bring the NP *John-man-un* in the negative scope at all: it only institutes the NP as the topic. This is in contrast to the LFN version (24c), in which the attachment of *nun* makes the whole sentence fall within the negative scope, yielding the wide-scope reading, ‘It is not the case that only John beat Mary’. In the case of the SFN, *nun* has to be attached to the constituent which is to be negated. In English also, the *only* NP does not fall within the scope of the negator unless with focus on John, as can be seen in (27):

- (27) * Not only John beat Mary.

The asymmetry between MANY and ONLY can be accounted for if we adopt the asymmetric analysis of the semantics of *only* proposed in Horn (1969, 1996b):

- (28) *only* ($x=a, Fx$)
 Presupposes: Fa
 Asserts: $\neg\exists y (y \neq a \ \& \ Fy)$

On this view, what is said of (29a) is the negative component (29c) below. The positive component (29b) is taken to be a non-truth-conditional constraint on the appropriate assertion of (29a) such as conventional implicature, à la Grice (1975) (cf. Horn 1996b, Rooth 1985, Krifka 1993, Fretheim 1995) or more radically as a conversational implicature (cf. McCawley 1981:227):

- (29) a. Only Muriel voted for Hubert.
 b. Muriel voted for Hubert.
 c. Nobody distinct from Muriel voted for Hubert.

(Horn 1996b: 4)

Muriel is an independent constituent in the implicature (29b) but not in the assertion (29c). Since the descriptive negation affects only the assertion, the phenomenon that the *only* NP does not fall under the negative scope is naturally accounted for in the asymmetric analysis of *only*. Thus, (26) does not produce ‘Not only John but also other people beat Mary’.

The second context where the two forms of negation show a subtle asymmetry involves the ‘other than’ reading:

- (30) a. ?? John-i Mary-lul an ttayli-ko mil-ess-ta.
 John-NOM Mary-ACC NEG beat-and push-PAST-DECL
 ‘John did not beat Mary. He pushed her.’
- b. John-i Mary-lul ttayli-ci anh-ko mil-ess-ta.
 John-NOM Mary-ACC beat-NML NEG-and push-PAST-DECL
 ‘John did not beat Mary. He just pushed her.’

The result of the survey shows that while all of the 12 speakers accepted the LFN (30b) without any hesitancy, only 5 out of 12 people accepted the SFN (30a) without hesitancy and 7 people said that (30a) is acceptable but not quite right.¹⁹ Thus, we have to say that the SFN is not completely equal to the LFN in its compatibility with the ‘other than’ reading, although we cannot say that the SFN does not produce the ‘other than’ reading at all.

The third context where the SFN and the LFN show an asymmetry with regard to their scope ambiguity is the negative interrogative. Consider the following pairs in (31):

- (31) a. Swuni-ka ku namca-lul an cohahay-ss-eyo?
 Suni-NOM the man-ACC not like-PAST-POL
 ‘Did Suni not like him? (=Did Suni dislike him?)
 * ‘Didn’t Suni like him?(=Isn’t it the case that Suni liked him?)’

¹⁹ The sentence (30a), which replaces the last names *Lee* and *Kim* with *John* and *Mary* in Ryu’s example (84 c), (because no Korean would use a last name attached by case markers) was presented as a perfectly acceptable sentence in Ryu (1992: 50).

- b. Swuni-ka ku namca-lul coh.aha-ci anh-ass-eyo?
 Suni-NOM the man-ACC like-NML NEG-PAST-POL
 'Did Suni not like him?'
 'Didn't Suni like him?(=Isn't it the case that Suni liked him?)'

While the SFN (31a) is restricted to the predicate term negation yielding the NEG-V reading only (i.e., Did Suni dislike him?), the LFN (31b) obtains both the narrow scope NEG-V reading and the wide scope predicate denial. The contrast becomes more evident when the time adverb *hanttaynun* 'one time' is supplied as in (32):

- (32) a. # Swuni-ka ku namca-lul hanttay-nun an coh.ahay-ss-eyo?
 Suni-NOM the man-ACC one time not like-PAST-POL
 'Isn't it the case that Suni liked him at one time?'
 b. Swuni-ka ku namca-lul hanttay-nun coh.aha-ci anh-ass-eyo?
 Swuni-NOM the man-ACC one time like-NML NEG-PAST-POL
 'Isn't it the case that Suni liked him one time?'

The starred (32a) is of course grammatical when the sentence is interpreted as asking whether Suni disliked him one time (although she loved him most of the time). The following pair (33), in which a light verb *sengkongha-* 'to succeed' is split by *an* in the SFN, shows the same contrast:

- (33) a. # ku salam-i sek.yu saep-eyse-nun sengkong an hay-ss-eyo?
 the man-NOM oil-business-in-TOP succeed NEG PAST-POL
 'Isn't it the case that he succeeded in the oil business at least?'
 b. ku salam-i sek.yu saep-eyse-nun sengkongha-ci anh-ass-eyo?
 the man-NOM oil-business-in -TOP succeed-NML NEG-PAST-POL
 'Isn't it the case that he succeeded in the oil business at least?'

Thus, (33a) is grammatical only if it is interpreted as asking whether he failed in the oil business. We must conclude that while the LFN can be associated with both predicate denial and predicate term negations, the SFN is associated with only the predicate term negation in the negative interrogative sentences.

It is interesting to compare the asymmetry between the SFN and the LFN in the negative interrogative in Korean with the negative interrogative in English. Observe the following:

- (34) a. Did he not succeed in his business?
b. Didn't he succeed in his business?
- (35) a. Did you not vote for it?
b. Didn't you vote for it?
- (36) a. Can you not do it?
b. Can't you do it?

While the (a) version in (34)-(36) with the free particle *not* is compatible with both the wide scope reading, "Is it not / Isn't it the case that ..." and the narrow scope reading (not-succeed), the (b) version with the contracted form *-n't*²⁰ is associated only with the wide scope reading.²¹ While the negative morpheme *an* in the SFN, which is traditionally analyzed as an adverb, is a free form, *anh-* in the LFN must be affixed to the Infinitive ending *-a* or a tense / aspect marker. If *anh-* in the LFN is analyzed as an inflectional suffix, we can speculate that the inflectional suffix tend to be associated with the wide scope reading more than the free form when the two forms are available as a negator in the language.

²⁰ Following Lapointe (1980) and Zwicky and Pullum (1983), *-n't* is analyzed in Horn (1989:480) as an inflectional suffix realizing a lexical feature on the auxiliary element, rather than a clitic freely attaching to a host.

²¹ The wide scope readings of the (a) version are a bit stilted or formal, or they may appear in rhetorical questions such as, 'Columbus said he would sail westward to prove the world is round, and did he not succeed?' (I owe this distinction to Horn).

Despite numerous attempts to claim that both SFN and LFN are semantically the same (e.g., Ryu 1992; Yang 1976; H.-B.Lee 1970, 1972; Kim 1967),²² we must conclude that a subtle but not insignificant asymmetry exists between the SFN and the LFN in Korean with respect to the negative scope as well as the morphological and semantic factors that the SFN is constrained by.²³

4.4 Scalar Predicates, Metalinguistic Negation, and *nun* / *wa*

As mentioned before, the marker *nun* interacts also with scalar predicates showing a puzzling discrepancy between (3Ba) and (3Bb), repeated as (37Ba) and (37Bb) below.

- (37) A. Swuni namca chinkwu-ka sey myeng i-lamye?
Swuni boy friend-NOM three person is-they say
'I heard that Swuni has three boyfriends; is it true?'
- B. a. sey myeng-un ani-ya. twu myeng iya.
three person-TOP not two person is
'It's not three. It is two.'
- b. *Sey myeng-un ani-ya. Ney myeng iya.
three person-TOP not four person is
'It's not three, (but) it is four.'

²² The acceptability judgment in these researches were all based on the intuition of the researcher him/herself and/or one or two informants. No research presented the results of any surveys.

²³ The SFN is not acceptable when the predicate is a polysyllabic, compound, or negative verb. (Kim-Renaud (1974) also states that LFN is evidently preferred when speakers want to negate stative and/or polysyllabic verbs). Observe the contrast in the following :

#an sinsatawun / sinsatap-ci-anh-un 'ungentlemanly'; #an molunta / molu-ci anh-nun-ta 'not unaware of'; #an mattukhata / mattuk-ci anh-ta 'not satisfactory'.

The discrepancy consistently shows up not only in numerals but also in quantificational adverbs such as *cacwu* 'often'. The Japanese marker *wa* behaves the same in this respect. Furthermore, the marker *nun* is declared as a metalinguistic negative marker in some studies (cf. Kim 1991). Before we launch into the examination of the interaction of the marker with scalar predicates, I will outline metalinguistic negation, because the dichotomy of descriptive vs. metalinguistic negation is crucial in the explanation of the above discrepancy emerged in the interaction of the marker with scalar predicates and more importantly, in understanding the nature of the marker *nun*.

There is an indisputable difference between (39a) and (40), both of which are the negative counterparts of (38):

- (38) Chris managed to solve the problem.
- (39) a. Chris didn't manage to solve the problem.
b. It was difficult for Chris to solve the problem.
- (40) Chris didn't manage to solve the problem — it was quite easy for him.

In (39a), provided it is read as an ordinary negation, the proposition that Chris solved the problem is negated, reversing the truth value of the proposition. The implicatum (39b), which is conventionally implicated both by (38) and (39a), is preserved (cf. Karttunen and Peters 1979 and earlier works, and Grice 1975). But in the context of (40), which should be read with the right intonation contour (cf. Horn 1989, Liberman and Sag 1974, Ladd 1980), the conventional implicatum (39b) itself is rejected.

The existence of marked negation in natural languages such as (40) gives many difficulties in the treatment of negation, semantic or pragmatic approaches alike, because of the extensive and diverse uses of such constructions for the extra-semantic properties of utterance meaning or use it potentially induces (its presupposition, its morphology, its style or register, or its phonetic realization). Furthermore, the question of how to handle such

marked negations becomes more complicated when we consider the fact that the propositional content is considerably underdetermined by linguistic meaning and hence more difficult to draw the line between what is said (truth-conditional level of proposition) and what is implicated (non-truth-conditional meaning).

According to Horn (1989), who presents an informative, insightful and unsurpassably thorough survey of negation in natural languages, negation must be taken as pragmatically ambiguous between ordinary descriptive (object language) use of negation and metalinguistic use of negation. In contrast with ordinary descriptive (object language) negation, metalinguistic negation is a marked use of negation as a device for objecting to the ASSERTIBILITY of the previous utterance including the conventional or conversational implicata which cannot be reduced to the TRUTH of the proposition. The theory of metalinguistic negation is based on the distinction between the truth of a proposition and the assertibility of a statement or sentence.

The notion of assertibility originates from Grice's defense of his truth-conditional semantics of the ordinary language *or* represented in the table in (41):

(41)

p	q	p v q
T	T	T
T	F	T
F	T	T
F	F	F

To a potential objection to the truth table in the third column in (41) above, Grice responds: 'If you say "X or Y will be elected", I may reply "That's not so: X or Y or Z will be elected". Here... I am rejecting "X or Y will be elected" not as false but as unassertable'.²⁴ (Horn 1989: 377-8). Thus,

²⁴ For the same point made by Dummett 1973, see Horn 1989: 378-9.

the notion ASSERTIBLE must be taken as elliptical for something like ‘felicitously assertible’ or ‘appropriately assertable’, where the adverbial hedge is broad enough to cover the wide range of examples considered.
(Horn 1989:379)

Another characteristic of metalinguistic negation is rectification, which follows naturally when you object to something. Thus, *not X but Y*, whose basic function is to contrast X and Y, is used in many cases of metalinguistic negation, because *not X but Y* is a convenient form for rejecting (*not X*) and rectifying (*but Y*) side by side. A frequently, but not necessarily, used pattern for metalinguistic negation in Korean is *X ka anila (Y ita)* ‘It’s not X (but Y)’ as in (42):

- (42) apeci-ka o-si-n-key anila, apeci kkeyse o-si-ess-ta.
father-NOM come-HON that not father NOM(HON) come-HON-PAST-DECL

“It’s not ‘Father came’ but ‘Father (HON) came’.”

What is negated in (42) is not the truth of the proposition that father came, but the appropriateness of the speech level expressed by the plain Nominative marker *ka*. Since the appropriateness of the speech level is a relevant factor not to the truth or falsity of a proposition, but to the assertibility of an utterance, the use of negation in (42) is a case of metalinguistic negation.

4.4.1 Scalar Predicates and *nun / wa*

Negation of scalar predicates presents another instance of metalinguistic negation. On the Neo-Gricean minimalist approach of pragmatics to weak scalar predicates (cf. Horn 1989: Chapter 4; Anscombe and Ducrot 1977; Hirschberg 1985; Wainer & Maida 1990; and Iwanska 1992), the apparent ambiguity triggered by weak scalar predicates is pragmatic in character. For instance, the two-sided meaning of *some* ‘some but not all’ is not the truth-functional meaning per se but the combined meaning based on what is said and what is

implicated, that is, the upper-bounding implicatum which is associated with the assertion of the sentence containing that predicate within a given linguistic and extra-linguistic context. The relevant principle determining this implicatum is Grice's [First] Maxim of Quantity: *Make your contribution as informative as required for the current purposes of the talk-exchange* (cf. Grice 1967/1975:45; Strawson 1952:178-9; Fogelin 1967:20; O'Hare 1969:45; Harnish 1976:362; Horn 1972, 1989:383, 1990, 1992:164, 1996). The truth-functional one-sided meaning and the two-sided meaning, which is the implicatum, of *three*, *some*, and *possible* are given in (43):

		one-sided value	two-sided value
(43)	a.	You ate three cookies.	'...at least three' '... three but not four'
	b.	You ate some of the cookies.	'...some if not all' '... some but not all'
	c.	It's possible she'll win.	'...at least possible' '... poss. but not all'

While the negations of scalar predicates like those in (43) are ordinarily understood as negating the one-sided values which are the putative logical forms of these sentences — i.e.

He didn't eat three cookies (= "less than 3"), etc., — the marked negations, as in (44)

below, must be understood as negating the corresponding two-sided understandings. For instance, negation in (44a) attaches metalinguistically to the conversational implicatum, 'Max has exactly three children', which is associated with the utterance of *Max has three children*, rather than descriptively to the proposition expressed by that utterance.²⁵

²⁵ In recent approaches to implicature (cf. Recanati 1989, Carston 1988, and Horn 1992), the two-sided ('exactly 3') reading of the number *three*, which was considered as upper-bounding conversational implicatum conveyed through the Maxim of Quantity, is reanalyzed as a part of what is said.

e.g., Max has 3 children. '...at least 3' '...exactly 3'

On this approach, then, the negation in (43a) is not metalinguistic but descriptive, because what is negated is part of truth-conditional proposition.

- (44) a. Max doesn't have 3 children, he has 4.
 b. You didn't eat some of the cookies, you ate all of them.
 c. It isn't possible she'll win, it's downright certain she'll win.

However, it came to be widely recognized that propositional content is considerably underspecified by the semantic meaning contributed by the linguistic expression itself.²⁶ Carston (1988), who points out that the natural interpretation of sentences like those in (45),

- (45) It'll take us some time to get there.

is something like 'It'll take us a rather longer time than expected to get there', argues that the pragmatically recoverable strengthened communication (e.g., *a rather longer time than expected for some time*) comprises what is said. Thus, on this view, three processes are involved in getting from sentence meaning to what is said: disambiguation, fixation of reference, and pragmatic enrichment.

Furthermore, Carston's examples in [(46)-(48)] below show that the scale of the cardinals can be reversed depending on the context, indicating that the 'at least n' understanding of cardinal has no more privileged status to the semantics than the 'at most n' understanding.²⁷

- (46) a. Mrs. Smith does have three children.
 b. If Mrs. Smith has no more than three children, we'll all fit into the car.
 c. If Mrs. Smith has (at least) three children, she qualifies for this program.

- (47) If there are three books by Chomsky, I'll buy them all.

²⁶ Even for Grice, propositional content has to be fleshed out by the determination of reference, tense, and other deictic elements.

²⁷ The context-induced reversibility of the scales of cardinals is also acknowledged in Horn 1992. But these effects do not extend to the inexact scalar values. For more on this, see Horn 1972, 1992.

- (48) a. She can have 2000 calories a day without putting on weight.
 b. The council houses are big enough for families with three kids.

Thus, on the post-Gricean pragmatic enrichment analysis of what is said, the two-sided meaning of cardinals is not implicature but a part of what is said, namely, the EXPLICATURE (the proposition expressed) or truth-conditional content (cf. Sperber & Wilson 1986; Carston 1985, 1988; Kempson 1986; Recanati 1989; Horn 1992).²⁸ In other words, both one-sided and two-sided meanings of the cardinals must be directly represented at the level of logical content. Such an explicit content (explicature) view of the upper-bounding (two-sided meaning) of scalar predicates, then, makes needless a call for any sort of duality of negations, since the marked negations such as (44) can be interpreted as straightforward cases of descriptive negation (Kempson 1986:88).²⁹ In what follows, however, I shall discuss two phenomena which indicate that one-sided meaning and two-sided meaning of scalar predicates, including cardinals, are not equal, and that the two types of negation cannot be collapsed to one, contraindicating the straightforward descriptive analysis of negation and the equal treatment of lower-bounding and upper-bounding meaning of scalar predicates including cardinals.

The distribution of two kinds of *but* conjunctions in English (cf. Horn 1989: 402-9) and the marker *nun* in Korean present instances of interesting interaction between the dual character of negation and weak scalar predicates. The asymmetry emerging in this interaction will point toward the direction in favor of the recognition of the duality of

²⁸ Horn (1992) defends the traditional neo-Gricean approach to scalar predicates and thus metalinguistic negation for non-cardinal predicates, while agreeing with the explicature approach to cardinals.

²⁹ Carston (1985) opposes Kempson's unifying treatment of the two uses of negation claiming that the marked negations of "Max has three children" have a strong metalinguistic or echoic flavor that renders them unreducible to ordinary descriptive readings. For more counter arguments against the equal treatment, see Horn 1992.

negation (i.e., descriptive vs. metalinguistic) and the asymmetrical treatment of the lower-bounding one-sided and the upper-bounding two-sided meanings of scalar predicates.

While the *X ka anila* ‘It is not X but ...’ in Korean is frequently used for rectifying negation, there are two alternative canonical forms for rectification in the case of cardinals; one form with a rectified full clause with *X ka aniya*. ‘It is not X’ as in (37) repeated as (49Ba) and (49Bb),

- (49) A. Swuni namca chinkwu-ka sey myeng i-laymye?
Suni boy friend-NOM three person be-they say
‘I heard that Swuni has three boyfriends. Is it true?’
- B. a. sey myeng-i ani-ya. twu myeng i ya.
three-people-NOM NEG-DECL two people is-DECL
‘It’s not three. It’s two.’
- b. sey myeng-i ani-ya. ney myeng i ya.
three-people-NOM NEG-DECL four people is-DECL
‘It’s not three. It’s four.’

and another form with *X ka anila* ‘not X (but)...’ as in (49Bc) and (49Bd),

- (49) c. sey myeng-i anila two myeng i-ya.
three-people-i *ani-la* two people is-DECL
‘It’s not three but two.’
- d. sey myeng-i anila ney myeng i-ya.
three-people-i *ani-la* four people is-DECL
‘It’s not three but four.’

As indicated in (49Ba-d) above, while both the rectified full clause form *-ka aniya* as in (49Ba) and (49Bb) and the *-ka anila* form as in (49Bc) and (49Bd) can be used for negating both ‘at least n’ and ‘exactly n’ meaning of the cardinal 3, only ‘less than’ negation can occur when the marker *nun* is attached to the full clause form *aniya* ‘is not’ as shown in (50a)-(50b):

- (50) a. sey myeng-un ani-ya twu myeng i-ya.
 three-people-TOP NEG- DECL two people is-DECL
 'It's not three. It is two.'
- b. # sey myeng-un ani-ya ney myeng i-ya.
 three-people-TOP NEG- DECL four people is-DECL
 'It's not three. It's four.'

Quantificational adverbs, which are also scalar, show the same asymmetry with regard to this respect. This is exemplified in (51a) and (51b):

- (51) a. ku salam-i swul-ul cacwu-nun mek-ci anh-ayo. kakkum mekeyo.
 the person-NOM drink-ACC often eat-ci NEG sometimes drink
 'He does not drink often. (But) he drinks sometimes.'
- b. # ku salam-i swul-ul kakkum-un mek-ci anh-ayo. cacwu mekeyo.
 the person-NOM drink-ACC sometimes eat-ci NEG often drink
 'He does not drink just sometimes. He drinks often.'³⁰

While *nun* is felicitously attached to *cacwu* 'often' in 'less than' negation as in (51a), the marker cannot occur in (51b), where the sentence is rejected because the quantifier, *kakkum* 'sometimes' is too weak, although the proposition that he sometimes drinks is true. The Japanese marker *wa* behaves in an identical manner in this respect as indicated in (52):

- (52) a. kare-wa osake-o hinpanni-wa noma-nai. tokidoki nomimasu.
 he-TOP wine-ACC often-TOP drink-NEG sometimes drink
 'He doesn't drink often. He drinks sometimes.'
- b. # kare-wa osake-o tokidoki-wa noma-nai. hinpanni nomimasu.
 he-TOP wine-ACC sometimes-TOP drink-NEG often drink
 'He doesn't drink just sometimes. He drinks often.'

³⁰ In the scope of descriptive negation, the NPI *ever* occurs.

Thus, in the context of (49A) above, where the Speaker A says that she heard that Suni has three boyfriends, (53a) but not (53b) is used, because *wa* produces only ‘less than’ negation when it is used with scalar predicates:

- (53) a. san-nin de-wa na-i. hutatsu desu.
 three-people is-TOP NEG two people is
 ‘It’s not three. It’s two.’
- b. # san-nin de-wa na-i. yo-nin desu.
 three-people is-TOP NEG four-people is
 ‘It’s not three. It’s four.’

In discussing three types of ‘less than’, ‘more than’, and ‘other than’ negation (cf. Horn 1978a:137) as in (54),

- (54) a. She isn’t pretty. (=less than pretty).
 b. She isn’t (just) pretty, she is beautiful. (=more than pretty.)
 c. She isn’t pretty, but she is intelligent. (=other than pretty.)

McGloin (1982) points out that (55a) means only ‘less than’, and (55b) with the marker *wa* can have ‘less than’ and ‘other than’, but not ‘more than’ type of negation.

(McGloin 1972: 58)

- (55) a. atsuku na-i.
 hot NEG-PRES
 ‘It’s not hot.’
- b. atsuku-wa na-i.
 hot NEG-PRES
 ‘It’s not hot.’

Thus, to say, “The tea is not hot, but it is delicious,” one uses (56),

- (56) atsuku-wa na-i. (keredomo) oishii- desu.
 hot-TOP NEG-PRES (however) delicious

‘It is not hot. (But still) it is delicious.’

while the ‘more than’ type of negation would have to resort to some other device in Japanese, as in (57a) or (57b) below:

(McGloin 1972: 58)

- (57) a. Atsui dokoro-ka nietagit-te i-ru-yo.
 hot far from boiling be-PRES
- b. Atsui nante yuu mon ja na-i. nietagit-te i-ru-yo.
 hot say NEG boiling be-PRES

‘It’s far from being hot. It’s boiling.’

‘It’s not something you can call hot. It’s boiling.’

Given these data, we conclude that *nun* in Korean and *wa* in Japanese have the same constraint in negating scalar predicates: namely, it cannot occur in the ‘more than’ type of negation. The question is: Why is this so? Is this phenomenon related to any other cross-linguistic principle? The peculiar behavior of *nun/wa* in scalar negation is reminiscent of two *buts* in English. As one correlate of the metalinguistic vs. descriptive split for natural language negation, Horn (1989) presents the different behavior of two *buts* in English:

(Horn 1989: 404)

- (58) a. It isn’t hot, but scalding.
 b. It isn’t hot — it’s scalding.
 c. # It isn’t hot, but it’s scalding.

In (58a) and (58b), *hot* is rejected on the grounds that the predication it would yield is not appropriate, though true, because it is too weak. With this interpretation, the rectification, *scalding* in this case, can occur with *but* (as in (58a)), with a rectified full clause (as in

(58b)), but not with both (as in (58c)). In contrast to (58c), (58d) below is acceptable, which is assigned the intonation contour characteristic of concessions:

(58) d. It isn't[↘] hot, but it is[↘] warm.

In the same way, the unacceptability of *but* with full clause in (59c) disappears in the 'less than' negation in (59d).

(Horn 1989: 404)

- (59) a. We don't have three children, but four.
 b. We don't have three children — we have four.
 c. # We don't have three children, but we do have four.
 d. We don't have three children, but we do have two.

The syntax, the concessive character, and the nature of negation (i.e., *less than* negation) of (58c), (58d), (59c), and (59d) correctly led Horn to conclude that *but* in (58c), (58d), (59c), and (59d) is a true concessive sentential connective (PA *but* for *pero / aber* following Anscombe and Ducrot 1977) and the negation in this construction is an ordinary descriptive operator (i.e., *less than* negation), while *but* in (58a) and (59a) is a rectifier (SN *but* for *sondern / sino*) and the negation with SN *but* is metalinguistic negation. Not only English but also modern and historical records in other languages such as French, Spanish, German, Swedish, and Finnish observe that PA type BUT occurs in full clause after positive or negative propositions, while SN type BUT occurs only in reduced clauses, immediately after negation (cf. Horn 1989:406)³¹ Thus, in Romance and Germanic languages, the negation which (optionally) figures in the concessive PA construction is necessarily descriptive, while negation required by the SN environments is typically understood as metalinguistic. Does this generalization hold in Japanese and Korean?

³¹ Compare the two functions of *mais* in French, *pero/sino* in Spanish, *aber/sondern* in German (cf. Anscombe and Ducrot 1977, Tobler 1896, Melander 1916, Ducrot and Vogt 1979: cited in Horn 1989: 406).

To put the question differently, does the asymmetric behavior of *nun* in Korean and *wa* in Japanese involving scalar predicates observed in (49)-(56) indicate that these markers are lexically ambiguous like two *buts* in English, between the presupposition marker (cf. Chapter 3) and the concessive marker? I shall discuss this issue in the following.

The marker *nun* itself is not lexically ambiguous. However, it frequently occurs with clausal concessive connectives *-ciman* or *-eto* ‘but, although’ when it is attached to the nominalizer *-ki* in the construction *-ki nun ha* ‘does something indeed, (but)’, as illustrated in (60)-(62)³² :

- (60) son-ul cap-ki-nun hay-ess-eto, khissu -nun ha-ci anh-ass-ta.
hand-ACC hold-ki-TOP do-PAST-although kiss-TOP do-ci-NEG-PAST-DECL
‘Although I held her hands, I did not kiss her.’
- (61) i mulken-un kaps-i ssa-ki-nun ha-ciman cil-i nappu-ta.
this product-TOP price-NOM cheap-TOP do-but, quality-NOM bad-DECL
‘This product, although the price is cheap, is bad quality.’
- (62) towa-tuli-ko siph-ki-nun ha-ciman, ce-nun him-i eps-eyo.
help want to-ki- nun do-but, I- TOP power-NOM do not exist-HON
‘I want to help you, but I do not have the power.’

The structure *-ki nun ha* ‘does something indeed’ has been called a ‘VP focus’ construction in some studies (cf. Kang 1988, Kaiser 1999).³³ “Concessive relations can be expressed in many languages by emphatically asserting the truth of one of a pair of clauses

³² Among the three Nominalizers, *-um*, *-ki*, and *-kes*, Middle Korean made extensive use of the substantive *-um*, and the nominalizations it produced correspond in some cases to the modern structure of adnominalization *-kes* and in other cases, to the modern use of the summative *-ki*. Other cases of *-ki* are equivalent to uses of *-ti*, the immediate ancestor of the suspensive *-ci*. (Martin 1992: 324). In Martin 1992, *-ciman* is analyzed as the suspensive *-ci* + particle, *-eto*, as the infinitive *-e* + particle.

linked in some fashion. Expressions with the meaning ‘true, fact, well, indeed’ are frequently grammaticalized as concessive connectives” (König 1988:154). Given this cross-linguistic tendency of concessive relations, the two functions, ‘VP focus’ and ‘concessivity’ are not incompatible with each other. However, the structure *-ki nun ha* is more than just being capable of receiving a concessive interpretation, unlike the so-called absolute constructions in English exemplified in (63) (cf. Stump 1985 quoted in König 1988):

- (63) a. ? Not having any money, he went into this expensive restaurant.
 b. Not having any money, he nevertheless went into this expensive restaurant.

As indicated in (63a), it is difficult for the absolute construction to receive a concessive interpretation without the additional word *nevertheless*. Thus, we have to say that the absolute construction in English is not grammaticalized as a concessive structure. In the case of the *-ki nun ha* ‘does something indeed’ in Korean, however, I claim that it is grammaticalized as a concessive structure, because it receives a concessive interpretation even without a concessive connective, *-eto* or *-ciman* as in (64):

- (64) ce-to yehayng-ul cohaha-ki-nun ha-pni-ta.
 I-also travel-ACC like-NML-nun do-HON-DECL
 ‘I like travelling, too. (but)’

Sentences like (64) clearly lead the hearer to anticipate some counterargument or rejection of the conclusion. That is, (64) implies or is followed by something like *kulena sikan -i eps-ese cacwu mos kapnita* ‘But I can’t travel often because of time’.

³³ Kang M. -Y. (1988) considers *nun* in *-ki nun ha* as a contrastive / focus particle. He assumes that the topic marker *nun* is distinctive from the contrastive marker *nun* without giving any criterion to distinguish one from the other.

Because of its occurrence in the concessive phrase *-ki nun ha* the marker *nun* is associated with a concessive function when it occurs with scalar predicates. In Chapter 3, I have argued that *wa/nun* is fundamentally a marker for PRESUPPOSITION in the sense that it refers anaphorically to the previous information. Having observed that topic-comment sentences, generic sentences, contrastive sentences, logophoric sentences, and predicate denial sentences require the marker *nun*, I maintained that the argument structure for the marker with two grids [y x] uniformly explains why the marker occurs in all of these structures. The occurrence of *nun* in concessive sentences is another correlate of the argument structure of the marker with two grids [y x], because CONCESSIVITY requires two elements in nature: the conceded and the modifying. A type of concessive connective

... implies co-occurrence or co-existence of two facts as part of their literal meaning. The implication may be expressed ...by asserting that one eventuality *p* does not prevent, stand in the way of or affect another eventuality *q*. All connectives of this subgroup contain a negative affix as part of their formal make-up (e.g., Fr. *p n'empêche que q*). (König 1988:155).

The marker *nun* occurring in negated scalar predicates functions exactly like this type of concessive connective by virtue of its two grids [y x], which indicate the co-occurrence of two eventualities.

Once we recognize the concessive nature of *nun* involved in scalar negation, the peculiar behavior of the marker observed in (49)-(51) can be explained along the line proposed for the Romance and Germanic languages: the negation which figures in the concessive sentences cannot be metalinguistic: It is necessarily descriptive. When the two scalar terms are juxtaposed in the concessive construction, (neg-)P PA Q, P must be a stronger element than Q on a given scale (Horn 1989:409). In the case of (51b) repeated as (65b) below, the value of P *kakkum* 'sometimes' is lower than Q *cacwu* 'often' on the scale and hence it is against the principle.

(65) a. ku salam-i swul-ul cacwu-nun mek-ci anh-a-yo.
 the person-NOM drink-ACC often eat-NML not-INF-HON

kakkum mek-e-yo.
 sometimes drink-INF-HON

'He does not drink often. (But) he drinks sometimes.'

b. # ku salam-i swul-ul kakkum-un mek-ci anh-a-yo.
 the person-NOM drink-ACC sometimes eat-NML not-INF-HON

cacwu mek-e-yo.
 often drink-INF-HON

'He doesn't drink sometimes. He drinks often.'

But why is this so? An answer to this question is possible along the following lines of the Neo-Gricean account of scalar predicates. What is negated in descriptive negation is the truth conditional meaning, which is the one-sided 'at least' meaning. Thus, in the descriptive negation of *warm*, for instance, everything above including *warm* on the scale (i.e., from *warm* to *scalding*) is negated: that is, 'less than warm' is asserted. Therefore, you cannot assert anything above *warm* on the scale, because asserting what is negated in the preceding clause is a contradiction. Only in the metalinguistic negation, can anything including contradictory meaning be objected. However, metalinguistic negation does not occur in concessive sentences. Therefore, in a concessive structure **neg-P PA Q**, **P** must be a stronger element than **Q** on a given scale. This explanation is not possible in the post-Gricean explicature theory in which both 'at least' and 'exactly' meaning of scalar predicates are equally treated as truth-conditional meaning.

Drawing attention to the contrast between (66a) and (66b), Chay (1983) states that the attachment of *nun* to an adverb cannot be allowed depending on the function of the adverb in the sentence (Chay 1983: 96):

- (66) a. Chelswu-ka kulim-ul cal-un kuli-n-ta. (Chay's 53-2)
Chelswu-NOM picture-ACC well-TOP draw-PRES-DECL

'Chelswu draws a picture well.'

- b.# Chelswu-ka kulim-ul maywu cal-un kuli-n-ta. (Chay's 53-2)
Chelswu-NOM picture-ACC very well-TOP draw-PRES-DECL

'Chelswu draws a picture very well.'

However, Chay's explanation is not tenable for two reasons: (i) the function of the adverb *cal* 'well' in (66a) is the same as that in (66b); (ii) *nun* can occur with the adverb *maywu cal* 'very well' in the corresponding negative sentence as (67a)-(67b):

- (67) a. Chelswu ka kulim-ul maywu cal-un mos kuli-n-ta. (Chay's 56-3)
Chelswu-NOM picture-ACC very well-nun cannot draw-PRES-DECL

'Chelswu cannot draw a picture very well.'

- b. Chelswu ka kulim ul maywu cal kuli-ci-nun- mos ha-n-ta.
Chelswu-NOM picture-ACC very well draw-NML-nun can't PRES-DECL

'Chelswu cannot draw a picture very well.'

What is involved here is the above principle that in (neg-)P PA Q in a concessive structure, P must be a stronger element than Q on a given scale. The scale value of *maywu cal* 'very well' is the highest one, hence it is acceptable as P in a negative sentence as in (67a) and (67b). However, it is not acceptable as Q as in (66b), because it is not possible to find P, which must be a stronger element than *maywu cal*.³⁴

³⁴ Chay's other examples should be explained by other principles. For example, *kot* in (1) [Chay's (59)],

- (1) Wuli kul, kot hankul-un wuli-uy calang-ita.
our writing systyem, that is, Hankul-TOP we-POSS pride-be
'Our writing system, that is, Hankul, is our pride.'

is not used as an adverb *kot* 'soon' but as *kot* 'that is'.

We have observed the asymmetry of two uses of negation in concessive structures manifested in the two *but*s in English, the postpositional marker *nun* in Korean, and *wa* in Japanese. It clearly shows that negation in concessive structures cannot be used metalinguistically and that descriptive and metalinguistic negations cannot be collapsed into one. However, I must invoke one caveat: the PA-*but* vs. SN-*but* itself (i.e., concessive *but* vs. contrastive *but*) is a correlation, not an absolute criteria for metalinguistic negation (Correlation can vary in languages and allow some exceptions).³⁵ The primary criterion for metalinguistic negation should be built on the distinction of truth vs. assertibility which applies universally.

Kuno (1980, 1982) claims that while the LFN *-ci an(i)* is a sentential negation, the SFN *an(i)* is a verb negation, except when there is a multiple-choice focus elsewhere in the sentence, in which case *an(i)* may have this focus under its scope. Observe the sentences (68a) and (68b):

- (68) a. pi-ka manhi (nun) an o-ass-ta.
rain-NOM a lot (TOP) not come-PAST-DECL
'It didn't rain a lot.'
- b. pi-ka manhi (nun) o-ci anh-ass-ta.
rain-NOM a lot (TOP) come-NML NEG-PAST-DECL
'It didn't rain a lot.'

Sentence (68a) is acceptable, though many speakers prefer the LFN version (68b) to (68a).

However, even for such speakers, neither (69a) nor (69b) is acceptable:

- (69) a. # pi-ka cokum-un an o-ass-ta
rain-NOM a little-TOP NEG come-PAST-DECL

³⁵ Pusch (1975) points out that there are many cases in which both *sondern* and *aber* are possible as in (1) (Geurts 1998: 280):

- (1) Die Arbeit ist nicht gut {sondern/aber} ausreichend.
'The work is not good but satisfactory.'

- b. # pi-ka cokum-un o-ci-anh-ass-ta
rain-NOM a little-TOP come-ci-NEG-PAST-DECL

‘It didn't rain a little.’ (both a and b)

If *manhi* ‘a lot’, *cokum* ‘a little’ and other quantificational adverbs are simply treated as an instance of a multiple-choice focus, the asymmetry between (68) and (69) cannot be explained. Only on the approach of negation which recognizes the split of descriptive vs. metalinguistic negation can the asymmetry of *nun/wa* in scalar negatives be accounted for.

A particularly striking example of the correlation of ‘less than’ descriptive negation, concessivity, and the marker *nun* appears in *onul uy yang.sik* ‘Daily Bread’ (1989 Vol. May-July):

- (70) a. pusang-ul tangha-ci anh-ulila-ko-nun mit-ci
injury-ACC be inflicted-ci not- will-that-nun believe-NML

anh-ass-ciman, hananim-uy pohohasim-ul mit-ko-iss-ess-ta.
not-PAST-but God’s protection-ACC believe-PROG-PAST-DECL

‘Although I did not believe that I would not be injured, I believed in God's protection.’

Since the embedded clause *pusang ul tang.haci anh.ulila* ‘I would not be injured’ is not a scalar predicate, it might be absurd to call this ‘less than’ negation. However, note that while the corresponding affirmative sentence (70b) does not require *nun*, the negative sentence (70c) is not acceptable without *nun* as indicated in (70c):

- (70) b. pusang-ul tangha-ci anh-ulila-ko mit-ess-ta.
injury-ACC be inflicted-ci not- will-that believed

‘I believed that I would not be injured.’

c. ?? pusang-ul tangha-ci anh-ulila-ko mit-ci-anh-ass-ta.
injury-ACC be inflicted-ci not-will-that believe-NML-NEG-PAST-DECL

‘I did not believe that I would not be injured.’

Two things are involved here. The reason for the deviancy of (70c) is that the negative in the matrix clause is associated with the embedded clause by the negative transportation or neg-raising, the availability of lower clause understandings for higher clause negation. Thus, (70c) becomes a double negative, which is logically equivalent to a positive, because the embedded clause has already one negative. This yields the meaning for the whole sentence as ‘I believed that I will be injured’, which is not what the speaker wants to say. The speaker wants to say that he didn’t believe that he will not be injured at all, but he believed that somehow God would protect him so that at least he would not be killed. The semantics of the whole sentence is a case of scalar predicate indicating the scale of injury. Thus, the marker indicates concessivity, which is strengthened by the concessive ending, *-ciman* ‘although, but’.

4.4.2 Contrastive Negation and Metalinguistic Negation

Having explored the functions of *nun* in negative sentences, I shall now point out some misleading claims in the literature regarding metalinguistic negation and Korean. Kim (1991) claims that the marker *nun* is a negative particle as a device for metalinguistic negation offering the following sentences in [(71a)] and [(71b)] as examples:

(Kim 1991:128)

- (71) a. *talli-ci* *anh-nun-ta.*
 run-NML not-PRES-DECL
 ‘(He) does not run.’
- b. *talli-ci-nun* *anh-nun-ta.*
 run-NML-nun not-PRES-DECL
 ‘(He) does not run.’

The difference between (71a) and (71b) is that while (71a) is ambiguous between a simple

negative reading of ‘He does not run.’ and a rectification reading like ‘He does not run. (He just walks fast)’, (71b) has only the latter reading because of the marker *nun*. Therefore, Kim says, the marker *nun* is a device for metalinguistic negation. However, Kim’s erroneous claim seems to result from his misunderstanding of metalinguistic negation as well as misinterpretation of his data. Observe (39) repeated as (72a), (72b), and (72c) below which are clearly metalinguistic:

- (72) a. Chris didn’t ^v manage to solve the problem — it was quite easy for him.
(Horn 1989: 368)
- b. I’m not a Trotskyite, I’m a Trotskyist. (Horn 1989: 372)
- c. We didn’t {have intercourse/make love} — we fucked. (Horn 1989: 371)

Unlike ordinary negation, what is negated in (72a) is not the proposition that Chris solved the problem but the conventional implicature that it was difficult for Chris to solve the problem (cf. Horn 1989). In the same vein, what is negated in (72b) is phonetic representation, and in (72c), the pragmatics associated with the register or stylistic level chosen by another speaker in the discourse context. The necessity of assigning a privileged status to metalinguistic (use of) negation in Horn’s theory comes from the fact that what the speaker is objecting to in the sentences in (72 a-c) is not matters of fact but something that cannot be reduced to the truth of a proposition. Another example of metalinguistic negation is found in the following response of a mother to her daughter, whom she gave up for adoption right after the birth. Her daughter found out her mother’s phone number and called her mother whom she had never met in her over thirty years of life:

- (73) a. Daughter: I think you are my mother.
b. Mother: I don’t THINK so. You ARE my daughter.
(from *Deep in My Heart*, aired on NBC, Feb. 17, 1999)

What the mother is denying in (73b) is not the fact that the person who called is her daughter. She is rejecting the weakness of the predicate *think*. However, metalinguistic negation is not distinguishable from ordinary negation until you hear the rectifying clause and go back to double-process the negation. Thus, when the daughter heard the first half clause of (73b), *I don't think so*, her face stiffened because she interpreted it as an ordinary negation and consequently as Mother's rejection of her as a daughter. Metalinguistic negation is

a device for objecting to a previous utterance on any grounds whatever, including the conventional or conversational implicata it potentially induces, its morphology, its style or register, or its phonetic realization. (Horn 1989: 363)

But not all types of objection are necessarily metalinguistic. As mentioned before, justification for the split of descriptive vs. metalinguistic negation lies in the distinction between the assertibility of a statement or sentence and the truth of a proposition. According to this criterion, the 'other than' reading essentially belongs to the truth of a proposition, although it can be used metalinguistically. The notions of 'other than' negation and metalinguistic negation are distinct as the notions of contrastive and metalinguistic negations are separate. Bearing this in mind, consider Kim's example (71b), repeated as (74) below closely:

(74) talli-ci-nun anh-nun-ta.
 run-NML-TOP NEG-PRES-DECL
 '(He) does not run.'

A probable context in which (74) is uttered is when the speaker objects to another speaker's utterance or suggestion that someone is running, say, violating the rule in a fast-walking contest. Thus, a sentence like *ppalli kel-ul ppun ita*. '(He) just walks fast. That's all.' is

likely to follow (74). The negation in (74) is just an instance of ‘other than’ reading with a concessive tone. The Japanese marker *wa* shows an identical property in the construction *wa* attached to the infinitive of a predicate followed by *shi na-* ‘do not’. This is exemplified in (75):

- (75) Taroo-wa ringo-o tori-wa shi -na-kat ta. (Japanese)
 Taroo-TOP apple-ACC pick-TOP-do-NEG-PAST
 ‘Taro did not pick apples, (but he helped by washing them)’

Such sentences are used to object to a previous utterance or an implication suggested. But this objection is not a case of metalinguistic negation. As mentioned before, more compelling evidence for my claim that *nun / wa* cannot occur in metalinguistic negation is manifested in its interaction with scalar predicates: *nun / wa* can occur in the ‘less than’ and ‘other than’ but not in the ‘more than’ reading. In contradiction to this, Kim claims that unlike Japanese *wa*, *nun* contributes to all three types of ‘less than’, ‘other than’, and ‘more than’ readings. Observe his examples in [(76)] below: ³⁶

- (76) a. cha-ka an-ttattus.ha-ta.
 tea-NOM NEG-be warm-DECL
 ‘The tea is not warm.’
- b. cha-ka ttattus.ha-ci anh-ta.
 tea-NOM be warm-NML NEG-DECL
 ‘The tea is not warm.’
- c. cha-ka ttattus.ha-ci-nun anh-ta.
 tea-NOM be warm-NML-TOP NEG-DECL
 ‘The tea is not warm (but)...’

³⁶ Kim (1991) seems to use Yale Romanization, but there are many errors in his transcription. (74) and (76) are his examples corrected according to the rules of Yale Romanization. The translations in English of (76e) and (76e’) are mine.

- d. *cha-ka* *ttattus.ha-ki-nun* *chakep-ta.*
 tea-NOM be warm-NML-TOP be cold-DECL
 ‘The tea is not warm. (It) is cold.’
- e. *cha-ka* *an-ttattus.ha -ki -nun* *ttukep-ta.*
 tea-NOM NEG be warm-NML-TOP be hot-DECL
 ‘The tea is not cold. (Lit: not not-warm) It is hot.’
- e’ *cha-ka* *ttattus.ha-ci-anh- ki-nun* *ttukep-ta.*
 tea-NOM be warm-NML-NEG-NML-TOP be hot-DECL
 ‘The tea is not cold. (Lit: not not-warm). It is hot.’

The difference between (76a) and (76b) is that of between SFN and LFN which has been discussed before. The sentence (76c), which is a negated scalar sentence, receives a tone of concessivity because of the marker *nun*. The sentence (76c) is most likely followed by a sentence like *kulehciman mas-i iss-ta* ‘but it is delicious’. Thus, it was asserted in (76c) that ‘being not warm’ does not stand in the way of ‘being delicious’.

In short, (76c) is just a case of ‘other than’ negation with a concessive tone which the marker *nun* contributes to a negative scalar sentence. The sentence (76c) is not a case of metalinguistic use of negation.

Another mistake in Kim’s claim is his misinterpretation of [(76d)], [(76e)], and [(76e’)]. It is true that [(76d)] has no overt negative morpheme on the surface and yet it is used to reject the previous utterance *cha-ka ttattus.hata* ‘The tea is warm’. However, (76d) can be considered as a case where a delimiter *khenyeng* ‘far from it, on the contrary’, which frequently occurs with *nun* in rejecting the previous utterance, is suppressed. Thus, (76d) can be considered as a variant of (77) where *nun khenyeng* is exemplified:

- (77) *cha-ka ttattus.ha-ki-nun khenyeng* *chakep-ta.*
 tea-NOM hot-NML-TOP far from it cold-DECL
 ‘Far from being warm, the tea is cold.’

Even if we grant that *nun* itself without *khenyeng* contributes to the force of rejection, this fact alone is not sufficient to call *nun* a negative morpheme. By Kim's logic, the WH interrogative *eti* 'where' or *mues* 'what' also must be called a negative morpheme, because the following sentences are used to reject the previous utterances by virtue of the interrogative.³⁷

- (78) a. cha-ka eti ttattus.hay. chakep-ki-man ha-ta.
 tea-NOM where be warm be cold-NML-only -DECL
 Lit. 'Where in the tea is it warm? (It is only) cold.'
 'The tea is not warm. It is cold.'
- b. ku yeca-ka eti yeypu-ni. mos sayngkye-ss-ta.
 the woman-NOM where be pretty-Q ugly-PAST-DECL
 Lit. 'Where in her is pretty? (She is) ugly.'
 'She is not pretty. She is ugly.'

Furthermore, for *nun* to be claimed to contribute to 'more than' reading, the following sentence (79), not (76e), should be tested for acceptability:

- (79) # cha-ka ttattus.ha-ki-nun, ttukep-ta.
 tea-NOM warm-NML-TOP is hot
 'Far from being warm, it is hot.'

As can be seen above, (79) is not acceptable nor is (80) below:

³⁷ *mues* 'what' is also used to reject or deny the previous utterance as in :
 A: ettehkey kulehkey yeng.e-lul cal haseyyo?
 how that English-ACC well speak
 'How do you speak English that well?'
 B: Mwel-yo. cal mos hapnita.
 what well can't speak
 'What do you mean? I can't speak well.'

- (80) # yeyppu-ki-nun, nwun-i pusi-ta.
 pretty-NML-TOP eye-NOM dazzled
 ‘Far from being pretty, she is dazzling.’

The unacceptability of (79) and (80) clearly indicates that *nun* cannot be used for the ‘more than’ reading. As evidence for the ‘more than’ reading, Kim erroneously takes (76e) and (76e’), which are objections not to the utterance *cha-ka ttattus.hata* ‘The tea is warm’ but to the utterance *cha-ka an ttattus.hata* ‘The tea is not warm’. Kim’s claim that *nun* is a negative morpheme for metalinguistic negation in Korean is therefore untenable.

Further confusion in understanding metalinguistic negation comes from the conflation of contrastive negation and metalinguistic negation. Contrastive negation lends itself easily to metalinguistic uses because when one rejects something as inadequate it is natural to provide an alternative as the correct form. Thus, X, which is “to be rectified” and Y, which is “the rectified alternative,” tend to appear as two contrasted elements on the surface in metalinguistic use of negation. However, not all types of metalinguistic negation are used contrastively nor are all contrastive negations metalinguistic either: many instances of metalinguistic negation are not contrastive. This holds, in particular, for the presupposition-denying negation. Therefore, the archetypal construction for contrastive negation, *not X but Y* in English (cf. McCawley 1991) and its corresponding construction in Korean *X-ka ani-ko / la Y-i-ta* or its Japanese counterpart, *X-zya nakute Y-da* are not inherently metalinguistic.

Kim (1996) claims that the clefted constructions *X-i-n kes-i ani-ko Y-i-ta* in Korean and *X-zya nakute Y-da*, in Japanese (paraphrasable as, ‘It is not X but Y’) are prototypical devices for metalinguistic negation in these languages because “in Japanese and Korean metalinguistic negation must be involved in a mental quoting process of two contrasted elements.” Unlike implicature or linguistic form, however, presupposition negation, which is indisputably metalinguistic (but controversial as to whether it is semantic or pragmatic: cf. Horn 1990; Carston 1998, 1999; Burton-Roberts 1989, 1999), is typically noncontrastive

and consequently there is nothing to quote on the surface (cf. Geurts 1998). Observe some cases of presupposition negation:

- (81) A. The king of France is bald.
 B. The king of France is not bald: there is no king of France.

In (81B) the previous utterance (81A) is taken up in order to reject the existential presupposition that (81A) carries, namely, that there is a king of France. In this case, neither *X-i-n kes-i ani-ko Y-i-ta* nor *X-ka anila Y-i-ta* in Korean can be employed to reject the existential presupposition as shown in (82B):

- (82) A. pullanse-uy wang-un taymeli-i-ta. (Korean)
 France-of king-TOP bald-be-DECL
 ‘The King of France is bald.’
 B.# pullanse-uy wang-un taymeli-ka aniko/la pullanse-ey-nun wang-i epsta.
 France-of king-TOP bald-NOM NEG-and France-in-TOP king-NOM-not exist
 ‘The King of France is not bald. There is no king in France.’

The Japanese counterpart *X-zya nakute Y-da* is no more capable of handling the existential presupposition than its Korean counterpart. This is because the existential presupposition is not something to be quoted on the surface as a contrasted element. “The name of a name or other expression is commonly formed by putting the named expression in single quotation marks; the whole, called a *quotation*, denotes its interior” (Quine 1951: 23f). Existential presupposition, or presupposition in general, is not something that can be denoted as a surface constituent of the sentence which carries the presupposition. A presupposition is a background assumption that is assumed to be non-controversial between the discourse participants.

One way to reject the existential presupposition in Korean and Japanese is to resort to other devices such as *~lani* (Korean) ‘Are you saying ~?’ as (83) and *~soo de-wa nai* (Japanese) ‘It is not so’ as (84B):

(83) pullanse-uy wang-i taymeli-lani! pullanse-ey-nun wang-i eps-ta. (Korean)
 France-of king-TOP bold-you say France-in-TOP king-NOM not exist

‘Are you saying that the King of France is bald! There is no king in France.’

(84) A. furansu-no oosama-wa hage-da (Japanese)
 France-of king-TOP bald

‘The King of France is bald.’

B. soo de-wa nai. furansu-ni-wa oosama-wa i-nai.
 so is-TOP not France-in-TOP king-TOP be-NEG

‘It is not so. There is no king in France.’

The existential presupposition can be also negated via ordinary Long Form Negation in Korean as in (85B):

(85) A: sin-un hayngpokha-ta.
 God-TOP happy-DECL

‘God is happy.’

B: sin-un hayngpokha-ci-to pulhayngha-ci-to anh-ta.
 God-TOP happy-NML-also unhappy-NML-also NEG-DECL

‘God is neither happy nor unhappy.’

sin-un concayha-ci anh-ki ttaymun-i-ta.
 God-TOP exist-NML NEG-NML because-be-DECL

‘because God does not exist.’

The above examination clearly indicates that *X ka ani-ko Y ita* in Korean or *X zya nakute Y da* in Japanese is simply a device for contrastive negation which can be conveniently

used for metalinguistic purposes. In (86) below *X ka ani-ko / la* is used for descriptive negation, whereas in (87), which might be uttered by an undertaker who is fed up with the usual pretensions of his profession, the same form is used metalinguistically (cf.

McCawley 1991: 191):

- (86) Na-nun ssice-lul chanyangha-le o-n-kes-i ani-la,
I-TOP Caesar-ACC praise-to come-PAST-that-NOM is not-and
ku-lul mut-ule o-ass-ta.
he-ACC bury-in order to come-PAST-DECL
“I come to bury Caesar, not to praise him.”
(Korean translation of *Julius Caesar*, III.ii.76 quoted in McCawley 1991)
- (87) Na-nun ssice-lul ancangha-le o-n-kes-i ani-la,
I-TOP Caesar-Acc inter-to come-PAST-NML-NOM is not-but
ku-lul mut-ule o-ass-ta.
he-ACC bury-to come-PAST-DECL
“I come to bury Caesar, not to inter him.”

Contra Kim (1996), the above examination supports a typological generalization that “while no language contains two negative operators corresponding exactly to descriptive and marked negation, every language contains at least one negative morpheme which can be used either descriptively or metalinguistically” (Horn 1989: 442).

4.5 Negative Preemphasis

Certain classes of verbs can take the Accusative particle *lul* or the Nominative *ka* as well as the marker *nun* after *-ci* in the Long Form Negation,³⁸ as illustrated below in (88):

³⁸ In this use, *ul/lul*, *i/ka* and *un/nun* are called *cwuceyhwa chemsa* ‘thematization marker’ in Im (1978). See below (4.5.1)

- (88) a. *sinpu-ka* *yeyppu-ci* *anh-ta.*
 bride-NOM pretty-ci NEG-DECL
- b. *sinpu-ka* *yeyppu-ci-ka* *anh-ta*
 bride-NOM pretty-ci-NOM NEG-DECL
- c. *sinpu-ka* *yeyppu-ci-lul* *anh-ta*
 bride-NOM pretty-ci-ACC NEG-DECL
- d. *sinpu-ka* *yeyppu-ci-nun* *anh-ta*
 bride-NOM pretty-ci-TOP NEG-DECL

‘The bride is not pretty.’ (a, b, c, & d)

Whereas in (88a) either *sinpu* ‘bride’ or *yeyppu* ‘-be pretty’ can be negated, in (88b), (88c), and (88d) only the predicate *yeyppu-* can be negated. Furthermore, while (88b) and (88c) have a sense of emphasis in the force of negation compared to (88a), (88d) gives an ‘other than’ interpretation with a tone of concessivity that the bride is not pretty but she is something else (e.g., intellectual). In terms of negative force there is no difference between the nominative version (88b) and the accusative version (88c).³⁹ However, while certain classes of verbs take both the Nominative *ka* and the Accusative *lul*, certain classes of verbs take only the Accusative.⁴⁰ This section will investigate how the case-marker-preemphasis differs from *nun* -preemphasis, and why.

Previous studies on the issue of negative preemphasis simply say that the function of *ka* / *lul* in this position is focus-giver without discussing why these case markers give an emphasis effect. Ihm (1973, 1978) emphasizes that the *ka* and *lul* that occur in the preemphasis position do not function as case markers at all. Instead, he identifies them as a

³⁹ In rhetorical questions, which imply negation as in (1) below, only the Accusative *lul* occurs after the nominalizer *-ki*. Thus, *ki-lul han-ka* is a part of preemphasis semantically and syntactically, but defective in that it lacks the nominative version in the paradigm.

- (1) *sinpu-ka* *yeyppu-ki-lul* *han-ka?* *hakpel-i* *coh-ki-lul* *han-ka?*
 bride-NOM pretty -NML-ACC do-Q education good-NML-ACC do-Q
 ‘Is the bride pretty? Or is her education good? (implication: neither is the case).’

special case of *cwucey (hwa) chemsa* 'thematizers'. Since *cwucey* 'theme' refers to an element which is on the opposite side of the focus and the function of *ka / lul* in this position is focus-giver, the terminology *cwucey (hwa) chemsa* 'thematizer' is inappropriate. The case markers in this position are better called *kangco (chem)sa* 'focus-givers, emphasizees' if we really have to give them a new name. As we shall see later, however, their function of focus givers is not limited to these positions. Even when they occur as true case markers (i.e., after the argument of a predicate), discourse-functionally they play a role of focus-giver (e.g., the nominative marker implicates exhaustiveness). Therefore, it is not necessary to dub these case markers again.

I argue that these case markers function as focus-givers because of the existence of *nun*. Whereas the *nun*-attached constituent is not in the scope of assertion, the case marker-attached constituent is in the scope of assertion. In other words, when the constituent is asserted in the scope of focus, *lul* or *ka* is used according to the case assigning capacity of the predicate, but when the constituent is not in the scope of assertion, *nun* replaces these case markers. Thus, the discourse function of focus-giving accrues to these case markers and are grammaticalized in preemphasis position because of the existence of the marker *nun* which alternates with *ka* and *lul* in this language.

With regard to the choice between the Nominative *ka* and the Accusative *lul*, Ihm (1972, 1973, 1978) states that whereas the marker *nun* signifies contrastive theme, the Nominative *ka* represents exclusive focus, or exhaustive reading, and the Accusative *lul*, 'non-contrastive opposition'. Consider the following:

- (89) a. ai-ka wul-ci-nun anh-nun-ta.
 child-NOM cry-NML-TOP NEG-PRES-DECL

'The baby does not cry.'

⁴⁰ Choi (1991) shows that two semantic features, agentivity and stativity, play a role in determining the compatibility of the predicate with *ka* in negative preemphasis: only [+agentive, -stative] verbs cannot take *ka* for preemphasis.

- b. ai-ka wul-ci-lul anh-nun-ta.
 child-NOM cry-NML-ACC NEG-PRES-DECL

‘The baby does not cry.’

To be sure, in (89a), the act of crying is indeed contrasted with a number of other activities, and hence the sentence affirms that actually, the baby is doing something else, say “whining” or “playing pranks.” I attribute the function of contrast of *nun* in preemphasis also to the argument structure of *nun* which has two grids [x, y]. However, Ihm’s claim that *i/ka* represents exclusive focus / exhaustive reading, and the accusative *ul/lul*, ‘non-contrastive opposition’ faces some problems. In the mind of the speaker who utters (89b), there is no alternative or contrastive action: only the fact of crying is negated. Furthermore, in the following sentence (90), which can take both the Nominative and the Accusative, there is no difference between (90a) and (90b):

- (90) a. kkoch-i kop-ci-ka anh-ta.
 flower-NOM pretty-ci-NOM NEG-DECL
- b. kkochi-i kop-ci-lul anh-ta.
 flower-NOM pretty-ci-ACC NEG-DECL

“The flower is not pretty.” (both a and b)

According to Im’s hypothesis, as King (1989) points out, (90a) should have an “exhaustive listing” interpretation, and (90b), a non-contrastive reading. But as Ihm admits, there is no difference in meaning between (90a) and (90b). Facing this difficulty, Ihm states that whereas the opposition between an “exhaustive listing” vs. a “non-contrastive” reading holds in affirmative sentences, it is neutralized in negative sentences. Furthermore, this neutralization is found only in certain classes of predicates, mostly adjectival and passive sentences, because the *ka*-preemphasis is not compatible with certain classes of verbs as shown in (91):

- (91) * ku-nun nolay-lul pulu-ci-ka anh-nun-ta.
 he-TOP song-ACC sing-NML-NOM NEG-PRES-DECL
 'He does not sing a song.'
- (92) (*) ai -ka ul-ci -ka anh-nun-ta.
 baby-NOM cry-NML-NOM NEG-PRES-DECL
 'The baby doesn't cry.'
- (93) (*) kkoch- i phi-ci-ka anh-nun-ta.
 flower-NOM bloom-NML-NOM NEG-PRES-DECL
 'The flower just won't bloom.'

According to Ihm, (91) is unacceptable because *ka*-preemphasis is incompatible with [-stative] verbs. Under ordinary circumstances, most speakers would find (92) and (93) also unacceptable. However, Ihm suggests that if (92) with the processive verb is interpreted as static description of a situation (i.e., not as instigation of an action but rather the passive acceptance of a change or action) it is acceptable. That is, in (92) the speaker presupposes the existence of somebody pinching or slapping the child with the intention of making him cry, but the baby just won't cry. In this interpretation, the child is not the agent but the recipient. Thus, 'It is impossible to make the child cry' would be a better paraphrase (Ihm 1972:71). The same applies to (93), where one supposes an assiduous green thumb who just can't get his plants to bloom. This is consistent with Yang's note that the predicate can take either the nominative or accusative particle when the verb is stative (cf. Yang 1976:198).

Ihm's hypothesis, however, is not tenable for the following reasons: (i) Even under the passive and "static" interpretations of (92) and (93), these processive verbs which are *ka*-preemphasizable here are still [-stative]; (ii) There is no difference in meaning between *ka* and *lul* when they are used as "focus-givers" in negative sentences as in (90), where both the Accusative marker *lul* and the Nominative marker *ka* simply give focus to the nominalized verb to which they are attached. Therefore, the exclusive vs. non-contrastive opposition is inappropriate, and the stative theory does not hold.

The case-marker preemphasis, whether it is *ka* or *lul*, simply gives emphasis to the force of negation, and the focus of negation is limited to the predicate to which these case markers are attached. Choi (1991) maintains that two semantic features, agentivity and stativity, play a role in determining the compatibility of the predicate with *ka* in negative preemphasis : only [+agentive, -stative] verbs cannot take *ka* for preemphasis. In contrast to case marker preemphasis, the *nun*-preemphasis has nothing to do with the semantic features of the predicate: the marker *nun* can be attached to the *-ci* nominalized form of any predicate, yielding an ‘other than’ interpretation with a tone of concessivity. Thus, (89a) repeated below as (94),

- (94) ai-ka wul-ci-nun anh-nun-ta.
 child-NOM cry-NML-TOP NEG-PRES-DECL
 ‘The baby does not cry.’

gives a reading that the baby is not crying but he is doing something else, say ‘whining’, or ‘playing pranks’. The ‘other than’ reading of *nun*-preemphasis is attributable to the argument structure of *nun* which has two grids [y, x]: y is discharged by CRYING and x is discharged by another activity which is contrasted with CRYING. In other words, the function of *nun* in the preemphasis is a type of contrastiveness.

In this chapter, I have shown that the *nun* / *wa* which is attached to scalar predicates does not occur in metalinguistic negation, only in descriptive negation. Consequently, those items whose scalar value is very low cannot occur with *nun* / *wa* in negative sentences, because it is not possible to find a lexical item whose scale is lower than those items and the ‘more than’ reading is not possible in descriptive negation. The special function of *nun* in negative scalar predicates manifested by the asymmetry between the affirmative and its corresponding negative sentences with scalar predicates can be best explained by a theory of negation which recognizes two uses of negation, descriptive and metalinguistic, and a pragmatic approach to scalar predicates. I have also shown that *X ka*

ani-ko Y ita in Korean like *X zya nakute Y da* in Japanese, is a device for contrastive negation which can be used either for descriptive negation or metalinguistic negation. A misleading claim that these phrases are devices for metalinguistic negation comes from the conflation of contrastive negation and metalinguistic negation.

Having examined the controversial issue of synonymy between the Short Form Negation and the Long Form Negation in Korean, I concluded that a subtle but significant asymmetry exists between the SFN and the LFN in three contexts: negative interrogatives, the scope interaction with the delimiter *man* 'only', and the context of the 'other than' reading.

It was also observed that, as in English, there exists an asymmetry between universal negation and particular negation (*some ~ not*) in Japanese and Korean. That is, while a NEG-Q reading is possible in universal negations, the possibility of a NEG-Q reading disappears in the case of particular negations. The asymmetry is attributable to the fact that while the NEG-Q reading of particular negation could be alternatively and unambiguously expressed by a fully lexicalized, inherently negative quantifier such as *daremo* 'nobody' (Japanese) and *amuto* 'nobody' (Korean), no such lexicalized negative is available for the universal negation (cf. Horn 1989).

Regarding the dichotomy of the Nominative marker *ka* vs. *nun* in negative sentences (cf. Chap. 4.1), I maintained that it is correlated with the split of opposition relations: contrariety / privation vs. contradiction. The split in the opposition relations was shown to be related to the fact that predicate denial sentences are categorical in nature, hence marked by *nun* in Korean and *wa* in Japanese. Thus, the dichotomy of *nun* / *wa*-marked negative sentences and non-*nun* / *wa*-marked sentences in Korean and Japanese is just one reflex of the cognitive distinction between categorical andthetic judgment, which is also reflected in the split of several pairs of semantically distinctive sentence types such as link-focus vs. linkless sentences or generic (gnomic) vs. episodic sentences.

Chapter 5.

Conclusion

This study has focused on the sentence structures in which the postpositional marker *nun* in Korean and *wa* in Japanese occur, namely, generic sentences, topic-comment sentences, contrastive sentences, logophoric sentences, and predicate-denial sentences. In particular, for generic sentences, topic-comment sentences, and predicate-denial sentences, a tripartite structure has been proposed as the logical representation. The tripartite structure was first introduced in the literature to represent what the determiner quantification and adverbial quantification structures have in common, and thence used for the purpose of discussing various quantification-like structures which show some common properties, such as topic-comment sentences, generic sentences, and conditionals. However, the surface structures of these sentences in English, or any other Indo-European languages do not show any common characteristics which can be directly related to the tripartite structure. The present analysis of these sentence structures in Japanese and Korean, however, indicates that the tripartite structure may directly relate to the grammar of these languages, suggesting that the tripartite structure is not just an abstract representation at a metalevel, but a linguistic, or more specifically, logical representation of the categorical judgment, because cognitively speaking all these structures are in nature categorical.

To give a comprehensive summary of the investigation of these sentence structures, I first articulated the following properties which the generic sentences, topic-comment sentences, and predicate denial sentences in Japanese and Korean have in common: (i) Syntactically, the first constituent of these sentence structures occurs in sentence-initial position marked by *wa* in Japanese and *nun* in Korean; (ii) Pragmatically, the first constituent marked by *nun* / *wa* is presuppositional: it is outside the scope of assertion;

(iii) Logico-semantically, the first constituent is the domain restrictor: it specifies the domain relative to which the other part of the sentence is associated (i.e., asserted or denied).

Kiss (1998) claims that generic bare plurals and topicalized NPs are similar in that both are [+specific], showing that only [+specific] NPs can be topicalized. Hebrew nominal sentences, which show a syntactic characteristic of genericity through the obligatory presence of the pronominal copula, indicate that there is a correlation between the generic/non-generic distinction and the external/internal position of the subject (cf. Greenberg 1998). These studies and the present study converge on the claim that the subject NP in generic sentences is presuppositional and that it is outside the existential scope. Thus, the present study provides crucial evidence to support the relational analysis of generic sentences, which require the separation and relation of two elements: the related constituent and the matrix sentence or predicate. The correlation of presuppositionality and the marker was reinforced by the distinction between temporal vs. atemporal when clauses, and the cardinality vs. quantificational interpretation of indefinite noun phrases in Japanese and Korean, which correlate with the absence and the presence of the postpositional marker *nun/wa* in these languages.

Considerable discussion has been devoted to examining the topic-comment sentence structures. Having examined various elements which have been called topic in the literature (i.e., “topic” in topic-focus articulation, “open-proposition” in focus / open-proposition, and “theme” in the theme-rheme articulation of functional sentence perspective), I specified the type of topic marked by *nun / wa* as link (cf. Vallduví 1992). In particular, the link was differentiated from other types of topic by the following three properties: (i) The link universally occurs in sentence-initial position which is defined not by linear order but in terms of the scope of assertion; (ii) The link is presupposed in that it refers anaphorically to the antecedent and it is outside the scope of assertion; (iii) The discourse function of the

link is establishing a topic referent: it directs the hearer's attention to some element and announces that the speaker will assert or raise questions about that element.

The sentence-initial position has been claimed to be correlated with topichood on cognitive and functional grounds in the literature. With regard to this correlation, the present study pointed out two things: (i) The link type of topic must be distinguished from other types such as a continuous topic, because while the former occurs in sentence-initial position universally, the latter need not; (ii) The initial slot which is in the scope of assertion must be distinguished from the one which is outside the scope of assertion, because a focused element can occur in the former.

It has been generally assumed that topic must be anaphoric or given in some sense, and the notion of givenness has been extensively studied in the literature. In Prince (1981b), diverse notions of givenness were categorized into three: givenness_p (Predictability), givenness_s (Saliency), and givenness_k (Shared Knowledge / Assumed Familiarity), and the concentric relations among these notions were hierarchized in Horn (1986) (cf. Chap.3.4.2). The present study increased the understanding of givenness by exploring the intrinsic relation between contrast and assumed familiarity through the examination of contrastive topic sentences in Japanese and Korean, outbound anaphora, and long-distance anaphora in English. All these phenomena reveal that a discourse entity can be inferred and thereby be assumed to be familiar when the entity is in a poset relation such as contrast to some other entity in the discourse. The result was a new givenness tree, which shows that what is inferred can be pragmatically presupposed, and that what is presupposed is familiar (cf. Chap. 3.4.2.3).

Also explicated was the relation between anaphoricity and logophoricity. Unbound/ Long-Distance anaphors in many languages such as English *himself* or Icelandic *sig* have been recognized as logophors, the main function of which is to express the internal narrative point of view. The reason why unbound anaphors are selected for this specific use is attributable to the intrinsic nature of anaphoricity. That is, anaphors are referentially

defective NPs. In order to be interpreted, they require an antecedent. When the antecedent cannot be found structurally, logophoricity intervenes to fulfill the antecedent requirement pragmatically. In Japanese narratives, *wa* has been recognized as serving a similar function, that is, conveying the physical and psychological point of view of the *wa*-marked NP for interpretation of the text. The present study observed that *nun* in Korean plays the same role in written texts. Under the present analysis, the logophoric function of *nun / wa* is not an isolated phenomenon to be explained in an ad hoc way because *nun / wa* is essentially a marker for presupposition which is defined in terms of anaphoricity. As such, the marker can be also viewed as an anaphoricity marker. Given this analysis, the logophoric function of the marker can be explained along the aforementioned line. To be more specific, when the second argument, *x*, is linked to one of the three aspects of logophoricity (source, self, and pivot), the reader can interpret the text from the point of view of the *wa/nun* marked NP. Thus, the nature of the relation between anaphoricity and logophoricity is further elucidated by this study.

Regarding the interaction of the marker with negation, I observed that the *nun / wa* which is attached to scalar predicates does not occur in metalinguistic negation, only in descriptive negation. Consequently, those items whose scalar value is very low cannot occur with *nun / wa* in negative sentences, because it is not possible to find a lexical item whose scale is lower than those items and the “more than” reading is not possible in descriptive negation. The parallelism was shown as absolute between the above contrast (i.e., the contrast between the *nun / wa* with the lower scale predicates and the *nun / wa* with higher scale predicates in negative sentences) and the contrast between two types of adversative conjunction observed in languages like English, French and Swedish (e.g., PA *but* and SN *but* in English cf. Chap. 4.3.1). In this study, the *nun* in scalar predicates is analyzed as being associated with concessivity based on its occurrence in the grammaticalized concessive phrase, *-ki nun ha*.

Thus, the present study strengthens the argument for the universality of the constraint that negation in concessive structures cannot be used metalinguistically. At the same time, it defends the theory of negation which recognizes two uses of negation, descriptive and metalinguistic, and the asymmetrical treatment of the lower-bounding one-sided and the upper-bounding two-sided meanings of scalar predicates, because the special function of *nun* in negative scalar predicates manifested in the asymmetry between the affirmative and corresponding negative sentences with scalar predicates cannot be adequately explained otherwise. I have also clarified that *X ka ani-ko Y ita* in Korean, like *X zya nakute Y da* in Japanese, which is often claimed mistakenly to be a device for metalinguistic negation, is a device for contrastive negation which can be used either for descriptive negation or metalinguistic negation.

The dichotomy of the Nominative marker *ka* vs. *nun* in negative sentences (cf. Chap. 4.1), which correlates with the split of opposition relations, contrariety / privation vs. contradiction, is shown to be related to the fact that predicate denial sentences are categorical in nature, hence marked by *nun* in Korean and *wa* in Japanese. Given this analysis, the dichotomy of *nun* / *wa*-marked negative sentences and non-*nun* / *wa*-marked negative sentences in Korean and Japanese is just one reflex of the cognitive distinction between categorical andthetic judgment, which is also realized in the split of several pairs of semantically distinctive sentence types such as link-focus vs. linkless sentences or generic (gnomic) vs. episodic sentences in these languages.

Finally, we come to the nature of the postpositional marker *nun* in Korean and *wa* in Japanese. In previous studies, the marker was identified as a topic marker, contrastive marker, or even as genericity marker, and the felicity condition for the *nun* / *wa*-marked NP was defined in terms of old information or contrast. Problems under these analyses are: (i) There are cases which cannot be explained by the felicity condition defined in terms of old information or contrastiveness (e.g., the quantificational reading of indefinite NPs); (ii) Each function of the marker has to be explained separately like the descriptions of an

elephant by blind men: the logophoric *nun / wa*, the thematic *nun / wa*, the generic *nun / wa*, and the contrastive *nun / wa* are all treated separately. In short, a unifying explanation was not possible.

Based on the common thread that underlies the sentence structures in which the marker occurs, I claimed that *nun / wa* is essentially a marker for pragmatic presupposition in the sense that it refers anaphorically to the previous information, and I proposed that this complex meaning of the marker, anaphoric presupposition, must be represented by an argument structure with two grids, $y \ x$, which is in contrast to the case markers which have only one argument. The question can be raised as to how much evidence we have that there is actually an argument structure for the marker.

In current linguistic research, the importance of the lexicon and hence the interest in lexical and conceptual semantics has risen. An argument structure provides us with a powerful way of unfolding the semantic structures of predicates and with ways of explaining their behaviors in sentence syntax, as well as uncovering the grammatical parallels between nouns and verbs. If thematic relations such as *Agent, Patient, Theme* are semantic entities that are mapped onto the sentence syntax, semantico-pragmatic entities such as anaphoricity, logophoricity, and contrastiveness, which are sensitive to discourse-relevant distinctions, require the inter-sentential level. The present proposal for the argument structure for the marker *nun/wa* extends the theory of argument structure beyond the sentence syntax. Empirical evidence seems to be difficult to present. However, there is a clear theoretical desideratum and indirect evidence: (i) The argument structure with two grids provides a unifying explanation for all functions of the marker because it represents the underlying common thread that the NP marked by *wa/nun* in all sentence structures requires some type of antecedent; (ii) When there is no explicit element contrasted, the marker *nun/wa* actually implies an underspecified contrasted element. This fact can be explained by the argument structure; (iii) From the perspective of language acquisition, the fact that a child can perfectly learn the usage of the marker by the age when he

comprehends discourse, even though there is no explicit meaning or reference that the marker refers to in the world, suggests that the marker has an internal structure that child can learn like other lexical items.

We have observed that the marker *nun / wa* is not just a topic marker but a marker that occurs in topic-comment sentences, generic sentences, and predicate-denial sentences which share the cognitive property of being categorical and share the logical property of being representable by tripartite structures. It follows that Japanese and Korean are not just topic-prominent and subject-prominent languages, as suggested by Li and Thompson (1976), but languages which are surface-sensitive to categorical judgment. This suggests a new typological criterion: languages might differ as to how they realize thethetic vs. categorical distinction or how sensitive they are to this linguistically relevant cognitive distinction.

There is a fundamental difference between my account on *wa* and Kuroda (1992)'s. Kuroda's claim is that *wa* itself is the marker for the subject of a categorical judgment, which is defined in terms of "apprehension of substance" (cf. Chap 2.5). The basic claim of the present thesis is as follows: the categorical judgment requires two cognitive acts: attributing a property to a specific entity and recognition of that entity, which must precede the former. Therefore, the subject of a categorical judgment is presupposed in two senses: (i) The entity must have been under discussion, though it does not have to exist in the real world. In other words, it requires some type of antecedent; (ii) The existence of the entity is not asserted, but taken for granted and hence outside the scope of assertion. The marker *nun / wa* is not the subject marker of a categorical judgment itself, but it occurs in the position of the presupposed subject, which is the Restrictor of the tripartite structures, because it has the argument structure of a relational noun, y x , and the second argument x is saturated by the antecedent. The argument structure hypothesis can also account for the fact that *nun / wa* occur with logophoric NPs and contrasted phrases as well, which may or may not be in the scope of assertion, because logophoricity and

contrastiveness are inherently related to anaphoricity (cf. Chap 3.4 and Chap 3.5).

However, the claim that *nun* / *wa* itself is the marker of the categorical subject cannot account for all the functions of *nun* / *wa* in a unified way.

Finally, although the Japanese *wa* and the Korean *nun* are strikingly similar in their function and distribution as examined in this study, there is a minor difference in that *wa* occurs more freely in topic-comment sentences, whereas *nun* more rigidly requires an antecedent (e.g., *Kore-wa nan-desu-ka?* vs. *Ikes-i mues-i-ey-yo?* ‘What is this?’). This issue is not touched on in this study.

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