

*A SYNCHRONIC AND DIACHRONIC STUDY
OF
KOREAN MODAL SUFFIXES*

Young-jae CHOO

Department of Linguistics
SOAS
University of London

**A thesis submitted to
the University of London
for the degree of Doctor of Philosophy**

2003



ProQuest Number: 10673041

All rights reserved

INFORMATION TO ALL USERS

The quality of this reproduction is dependent upon the quality of the copy submitted.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if material had to be removed, a note will indicate the deletion.



ProQuest 10673041

Published by ProQuest LLC (2017). Copyright of the Dissertation is held by the Author.

All rights reserved.

This work is protected against unauthorized copying under Title 17, United States Code
Microform Edition © ProQuest LLC.

ProQuest LLC.
789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106 – 1346

Abstract

This functional typological study of the Korean Modal Suffixes intends to establish a rather comprehensive picture of the Korean modal suffixes (hereafter KMS). It employs diachronic and synchronic approaches assuming that synchronic rules reflect the diachronic development of the KMS. It also traces the development of the KMS from the point of view of their interaction with tense and aspect.

Chapter one gives a general overview of the whole work. Chapter two surveys previous studies on modality both from a general point of view and with regard to Korean and presents a preliminary account of the KMS. Chapter three deals with the Typological characteristics of the KMS. It establishes the suffixation rule, which presupposes that if there exist morphologically distinctive classes, there should be places of occurrence for the respective items which give automatic clues for their identification. Chapter four is concerned with the semantic features of the KMS. A number of semantic parameters of the system have been accounted for, and definitions of sub-categories and formulations are proposed on a conceptual basis (Palmer 1986).

This thesis is also dedicated to the description of the polysemous character of the KMS and to the establishment of the principle which governs the expansion of meanings, the cause and nature of semantic change in terms of a compromise between the two approaches – prototype and componential semantic theories (Bennett 1990; Taylor 1995). In the course of presenting a classification of their meanings, it emphasizes their polysemous nature and gives prominence to the distinction between deontic and epistemic uses.

Chapter five explores the historical development of the KMS. The assumption that what might have started as a context-dependent extension acquires the status of an established prototypical sense is applied to a representative set of Middle and Old Korean etymologies. The principles of change are accounted for from a grammaticalization perspective (Hopper & Traugott 1993).

Chapter six summarizes the original contributions of this thesis.

List of Tables

Table	page
1. Different Usages of Deonic & Epistemic meanings in Child Language	38
2. The Sentence type and honorific system in Korean	46
3. Sequential positions of verb inflections in Korean according to Chang (1996)	58
4. Sequential positions of verb inflections in Korean suggested in this study	58
5. Sequential position 1	59
6. Sequential position 2	60
7. Sequential position 3	61
8. Sequential position 4	62
9. Sequential position 5-1	65
10. Sequential position 5-2	66
11. Sequential position 5-3	66
12. Sequential position 6	69
13. Sequential position 7	69
14. Sequential position 8	70
15. Sequential position 9	71
16. Sequential position 10	72
17. Phrasal Modal Suffixes	100
18. Sequential positions of verb inflections in Middle Korean	168
19. A possible suffix order of the Middle Korean suffixes	170
20. Modal Suffixes that appears in the text	183
21. Chronological stages of Korean	191

List of Figures

1. Syntactic Relationship between Proposition and Modality	36
2. The Underlying Structure of the Post-final suffix <i>-siph-</i>	47
3. The Network Structure of Polysemy of the Suffix <i>-te-</i>	78
4. The Basic Meaning of the two Opposite Interpretations	95
5. Volitive and Regulative Deonic Modalities compared	119
6. Certainty, Possibility and Impossibility modalities compared	139

Acknowledgements

I would like to express my gratitude to David Bennett who both as a supervisor and friend has contributed most to my academic achievement. His patience, positive reinforcement, support, kind guidance and critical evaluation provided the direction I needed to keep moving forward to complete this dissertation.

I also wish to acknowledge the late R.H. Robins who invited me to this prestigious linguistics department eighteen years ago. I am most grateful to F.R. Palmer for his invaluable criticism and encouragement.

I am grateful to K.W. Pak who as my supervisor in M.A. and Ph.D courses at Busan National University guided and encouraged me, and to S.H. Lee, my bosom friend, without whose encouragement I could not have stood those stressful years any longer.

I am especially thankful for the understanding and patience shown by my colleagues, especially C.S. Sung, K.H. Hwang, and C.K. Ha who read drafts, picked holes in them and offered invaluable suggestions for improvement. I am also very grateful to late S.B. Chung, the Chancellor of Dong-A University, who supported me with encouragement and financial assistance over this long period. Without their support my achievement would have been impossible.

Finally, I express my deep gratitude to my family for everything they have done. Above all, I owe affectionate thanks to my wife, Sulja for all she did to make the completion of this thesis possible, and Drs. Won & Shin Tokuma, my daughter and son in law, for their understanding support and availability for stimulating discussions and for the work they did on the final draft.

It goes without saying that those who have contributed so much to the development of this thesis may still disagree with my interpretations. The responsibility for any errors is entirely mine.

Table of contents

	page
<i>Abstract</i>	2
<i>List of tables</i>	3
<i>List of figures</i>	4
<i>Acknowledgments</i>	5
<i>Table of contents</i>	6
<i>Table of the Romanization system</i>	11
<i>List of abbreviations and symbols</i>	14
<i>Morphophonemic rules</i>	17
<i>Suffixes considered in this study</i>	18
<i>Chapter I Introduction</i>	21
<i>Chapter II A Review of Previous Studies of Modality</i>	25
II.0. Introduction	25
II.1. The Philosophical Approach to Modality	25
II.2. The Linguistic Approach to Modality	28
II.3. The Cognitive Approach to Modality	37
II.4. Previous Studies on Modality in Korean	40
<i>Chapter III A Typological Account of the Korean Modal Suffixes</i>	44
III.0. Introduction	43
III.1. Obligatory Conditions of the KMS	44
III.2. Honorifics in the KMS	46
III.3. The KMS as predicators	47
III.4. The KMS and Adverbials	49
III.5. Matrix Subject - the Speaker - and the KMS	51
III.6. Negation and the KMS	52
III.7. Tense and the KMS	54
III.8. The Suffixation Rule of the KMS	56
III.8.1. Suffixation Place 1	59
III.8.2. Suffixation Place 2	60

III.8.3. Suffixation Place 3	61
III.8.4. Suffixation Place 4	62
III.8.5. Suffixation Place 5	65
III.8.6. Suffixation Place 6	68
III.8.7. Suffixation Place 7	69
III.8.8. Suffixation Place 8	70
III.8.9. Suffixation Place 9	71
III.8.10. Suffixation Place 10	72
III.9. Summary of Chapter III	72
<i>Chapter IV A Semantic Account of the Korean Suffixes</i>	74
IV.0. Introduction	74
IV.1.0. Polysemy of Modality in General	74
IV.1.1. Polysemy in the KMS	75
IV.1.2. The TAM Phenomenon -A polysemy across -categories, Tense, Aspect and Modality	80
IV.1.2.1. Polysemy in the Non-past Tense Marker <i>-(nu)n-</i> as a TAM System	81
IV.1.2.2. Polysemy in the Past Tense Marker <i>-(e)ss-</i> as a TAM System	83
IV.1.2.3. The Relationship between Deontic and Epistemic Modalities in the KMS	86
IV.2. Phrasal and Verbal Modal Suffixes in the KMS	95
IV.3. Categories and Systems of the KMS	105
IV.3. 1. Deontic Modal Suffixes	106
IV.3.1.0. A Conceptual Ground for the Definitions of Deontic Modal Suffixes	107
IV.3.1.1. The Regulative System	107
IV.3.1.1.1. Impositives	107
IV.3.1.1.2. Prohibitives	110
IV.3.1.1.3. Obligatives	111
IV.3.1.1.4. Propositives	111
IV.3.1.1.5. Requestives	112
IV.3.1.1.6. Permissives	112
IV.3.1.1.7. Anxietives	113
IV.3.1.2. The Volitive System	113

IV.3.1.2.1. Intentives	114
IV.3.1.2.2. Desideratives	116
IV.3.1.2.3. Promissives	117
IV.3.1.2.4. Threatives	117
IV.3.2. The Epistemic Modal Suffixes	119
IV.3.2.0. The Conceptual Ground for the Definition of the Epistemic Modal Suffixes	119
IV.3.2.1. Sub-systems of Certainty	119
IV.3.2.1.1. Declaratives	120
IV.3.2.1.2. Assertives	121
IV.3.2.1.3. Evidentials	125
IV.3.2.1.4. Quotatives	130
IV.3.2.2. Sub-systems of Probability	131
IV.3.2.2.1. Inferentials	132
IV.3.2.2.2. Presumptives	133
IV.3.2.2.3. Dubitatives	136
IV.3.3. Summary of chapter IV	139
<i>Chapter V. Diachronic Account of the Korean Modal Suffixes</i>	140
V.0. Introduction	140
V.1. The Development of the Modal Suffixes in the Itwu Period	143
V.2. The Development of the Middle Korean Modal Suffixes	151
V.3. The Development of the TAM System <i>-keyss-</i> , <i>-te-</i> and <i>-(e)ss-</i>	156
V.3.1. The Development of the Suffix <i>-keyss-</i>	156
V.3.2. The Development of the Suffix <i>-te-</i>	163
V.3.3. The Development of the Suffix <i>-(e)ss-</i>	166
V.4. The Suffixation Order in Middle Korean	167
V.4.1. Suffixation Place 1	172
V.4.2. Suffixation Place 2	170
V.4.3. Suffixation Place 3	170
V.4.4. Suffixation Place 4	171
V.4.5. Suffixation Place 5	171
V.4.6. Suffixation Place 6	171

V.4.7. Suffixation Place 7	172
V.5. Categories and Systems of the Middle Korean Suffixes	172
V.5.1. Deontic Modality	173
V.5.1.1 Sub-systems of Necessity	173
V.5.1.1.1. Impositives	173
V.5.1.1.2. Prohibitives	173
V.5.1.1.3. Compulsives	174
V.5.1.1.4. Advisories	175
V.5.1.1.5. Requestives	175
V.5.1.2. The Volitive System	176
V.5.1.2.1. Intentives	176
V.5.1.2.2. Promissives	177
V.5.2. Epistemic System	177
V.5.2.1. Sub-systems of Certainty	177
V.5.2.1.1. Declaratives	177
V.5.2.1.2. Assertives	178
V.5.2.1.3. Inferenceals	179
V.5.2.1.4. Reportives	179
V.5.2.2. Sub-systems of Possibility	180
V.5.2.2.1. Speculatives	180
V.5.2.2.2. Dubitatives	180
V.5.2.2.3. Interrogatives	181
V.6. A Text Analysis of Middle Korean	181
V.6. 0. Introduction	181
V.6.1. About the Text	182
V.6.2. Method	182
V.6.3. Categories of the Suffixes that Appear in the Text	183
V.6.4. Summary of the Text Analysis	183
V.7. Summary of the Chapter	186
Chapter VI. Conclusion	186
The Korean Texts cited in Chronological Order	188

Notes on the Korean Texts Cited	189
Chronological Stages of Korean	191
References	192

Table of the Romanization system

The Romanization system of Modern Korean and Middle Korean adopted in this study is the Yale system. For the description of obsolete symbols of Middle Korean, the Modern approximations are used.

No.	Hankul	Yale
Consonants		
1	ㄱ	k
2	ㅋ	kh
3	ㆁ	kk
4	ㄷ	t
5	ㅌ	th
6	ㄸ	tt
7	ㅍ	p
8	ㅑ	ph
9	ㅑ	pp
10	ㅅ	c
11	ㅆ	ch
12	ㅆ	cc
13	ㅅ	s
14	ㅆ	ss
15	ㅎ	h
16	ㅇ	ng
17	ㄴ	n
18	ㄹ	l
19	ㅁ	m

Vowels

20	아	a
21	어	e
22	오	o
23	우	wu
24	으	u
25	이	i
26	애	ay
27	에	ey
28	외	oy
29	야	ya
30	여	ye
31	요	yo
32	유	yu
33	예	yae
34	얘	yey
35	와	wa
36	워	we
37	위	wi
38	왜	way
40	의	uy

Modern approximations for the obsolete symbols of Middle Korean:

41	ㅎ	=>	h (glottal stop / lenitive ㅎ)
42	ㅅ	=>	z (half ㅅ)
43	ㄸ	=>	b (lenitive/light ㅃ)
44	ㅇ	=>	ng (ng- digraph : velar nasal)

45 \wedge \Rightarrow q reinforcement

46 . \Rightarrow \wedge

List of Abbreviations and symbols

Acc	Accusative case marker
Adn	Adnoun
Adnz	Adnominalizer
Adv	Advisory
Anx	Anxietive
Asp	Aspect
Ass	Assertive
Bn	Bound noun (=dependent noun such as <i>-ket-</i> , <i>-swu-</i> , <i>-li</i> , <i>-the-</i> , <i>-seymi-</i> , etc.)
Cau	Causative
Cer	Certainty
Com	Complementizer
Comb	Combative
Comp	Compulsive
Con	Connector
Dec	Declarative
Des	Desiderative
Deo	Deontic modality
Dub	Dubitative
Emo	Emotion
Eps	Epistemic modality
Evi	Evidential
Exc	Exclamation
Hon	Honorifics < Fin Final suffix
Imp	Imperative
Impo	Impositive
Inf	Inference
Inj	Interjective
Int	Intentive
Intr	Interrogative
Jud	Judgment

KMS	Korean modal suffix
Loc	Locative
Mod	Modal suffix
Neg	Negative
Obl	Obligative
Per	Permissive
Pr	Present
Pre	Predicator
Prb	Probability
Prh	Prohibitive
Pro	Promissive
Prp	Propositive
Prs	Presumptive
Prc	Prospective
Pst	Past
Quo	Quotative
Reg	Regulative
Rep	Reportive
Req	Requestive
Ret	Retrospective
Prf	Pre-final suffix
Pfs	Post-final suffix
Spe	Speculative
Subj	Subject
TAM	Tense-Aspect-Modality
Ten	Tense
Thr	Threative
Top	Topic marker
Uncer	Uncertainty
V	Verb
Vms	Verbal modal suffix

Voi	Voice
Vol	Volitive
Wil	Willingness
*	ungrammatical
?	odd sentence
o	occurrence
x	non-occurrence
.	Syllable boundary (optional)
-	Morpheme boundary

(Hyphens are sometimes replaced by dots, especially in the case of compound morphemes and phrasal suffixes, e.g. *-kyess.te.kwuna*, *-n/l.kes.i*)

Morphophonemic Rules

Certain morphemes have morphophonemically determined surface relations:

1. The subject markers *-i* and *-ka* are allomorphs : *-i* follows a consonant and *-ka* follows a vowel, e.g. John *i*; Mary *ka*
2. The alveolar stops, velar stops and bilabials are neutralized to unreleased plosives in syllable final position.
 - a. The alveolar stops /s, ss, t/ → /t/
 - b. The velar stops /k, kk/ → /k/
 - c. The bilabials /p, pp/ → /p/
3. Consonant clusters are reduced to one in word final position.

lk → k (e.g. *kataalk* 'reason' → *katak*)
4. The speaker humble marker *-pni-* → *-supni-* after consonant (e.g. *ka -pni -ta* → *mek -supni -ta*)

Suffixes considered in this study

Pre-final suffixes in Modern Korean

Suffixes	Modal	Concepts
<i>-keyss-</i>	Conjecture	Intentive
<i>-ci-</i>	Uncertain	Presumptive Impositive
<i>-te-</i>	Retrospective	Requestive
<i>-kwu-</i>	Inferential	Evidential
<i>-li-</i>	Presumptive	Intentive
<i>-ni-</i>	Interrogative	Dubitative Assertive

Final suffixes in Modern Korean

<i>-ka/na</i>	Presumptive	Dubitative
<i>-key</i>	Impositive	Presumptive
<i>-ta/la</i>	Assertive	Impositive Declarative
<i>-ne</i>	Assertive	Evidential Informative
<i>-se</i>	Propositive	Assertive
<i>-o/a</i>	Impositive	Assertive Dubitative
<i>-ca</i>	Propositive	
<i>-ma</i>	Intentive	Promissive
<i>-yo</i>	Assertive	Inquisitive

Verbal Suffixes

<i>-po-</i>	Intentive	Conjecture
<i>-siph-</i>	Intentive	Conjecture

Phrasal Suffixes

<i>-l/n.kes.i-</i>	Conjecture	Presumptive
<i>-l/n.moyang.i-</i>	Presumptive	Intentive
<i>-l/n.tus.ha-</i>	Presumptive	Intentive
<i>-l/n.seymi-</i>	Presumptive	Intentive
<i>-l/n.the.i-</i>	Presumptive	Intentive
<i>-l.pep.ha-</i>	Presumptive	
<i>-phok.i-</i>	Presumptive	
<i>-phen.i-</i>	Presumptive	
<i>-l.kkey</i>	Intentive	
<i>-l.la</i>	Anxietive	

Pre-final suffixes in Middle Korean

<i>-eis/eys/seys/ess-</i>	Past tense	Aspect	Assertive	
<i>-ta/to/te -</i>	Retrospective			
<i>-(nu)n-</i>	Present tense	Perfect	Aspect	Affirmative
<i>-keyss-</i>	Presumptive	Intentive		

Final Suffixes in Middle Korean

<i>-li/oli/uli</i>	Intentive	Promissive	Interrogative	Conjecture
<i>-cima/cimala</i>	Prohibitive			
<i>-kala/kola/oa</i>	Compulsive	Intentive	Declarative	Assertive
<i>-eila/ula</i>	Compulsive			
<i>-yeysala</i>	Compulsive			
<i>-zahalila</i>	Compulsive			
<i>-sala/sola/sheyla/sheila</i>		Advisory	Requestive	Hortative
<i>-lela/tala/tela</i>	Retrospective	Inferential	Presumptive	
<i>-nila/tanila/nanila</i>	Assertives	Presumptive		

<i>-kola/kesila</i>	Declarative	Assertive	Advisory	
<i>-kota/kola</i>	Intentive	Assertive	Declarative	
<i>-syose/sose/sontye</i>	Compulsive	Requestive		
<i>-kwacye/kocie/koce</i>	Intentive			
<i>-ciila/cila/ciita</i>	Intentive	Presumptive		
<i>-cey</i>	Advisorie	Interrogative		
<i>-koce/oce/otye</i>	Intentive	Desiderative	Assertive	
<i>-lasta</i>	Intentive	Assertive		
<i>-lieta</i>	Inferential			
<i>-kosota</i>	Intentive	Assertive		
<i>-nata/nota/nosta</i>	Declarative	Assertive	Interrogative	Advisory
<i>-nota/kota/kosota/keta</i>	Declarative	Assertive		
<i>-syasta</i>	Declarative	Assertive		
<i>-tota/keta</i>	Declarative	Intentive	Presumptive	
<i>-lahatasta/lateita</i>	Reportive			
<i>-noni/nani</i>	Inferential	Assertive	Presumptive	
<i>-lani</i>	Speculative	Dubitative		
<i>-ni</i>	Assertive	Interrogative	Presumptive	
<i>-lyenye/losonyo</i>	Speculative	Dubitative	Interrogative	
<i>-lateola/latala</i>	Reportive			
<i>-liyo/lia/lio/o</i>	Speculative	Dubitative	Interrogative	
<i>-nga/a</i>	Speculative	Interrogative		
<i>-ingoyo/gayo</i>	Speculative	Interrogative		
<i>-niisko</i>	Speculative	Interrogative		
<i>-ma</i>	Permissive			

N.B. The English glosses of Korean sentences and phrases are sometimes awkward. This is so because they are intended to be matrix or performative sentences, e.g. 'I suppose that X' in which the KMS express their modality as predicators.

Chapter I. Introduction

The study of Korean Modal Suffixes (hereafter KMS) has attracted the attention of linguists because the morphological forms have controversial meanings and functions within the system and quite often share their forms with those of tense, aspect, and honorifics (See TAM system in Ch. 4 & 5 for the details). How this phenomenon came about and what its implications might be is one of the inquiries of this thesis.

There has been a lot of work on the modality of English and other languages. However, Modality in Korean has been treated as peripheral in studies dealing mainly with tense, aspect and honorific usage. The present writer is not in agreement with these limited interpretations of the KMS and seeks to establish modality as a key feature of the Korean suffix system.

Accordingly, this study intends to establish a rather comprehensive picture of the Korean modality system and to define the relationships between its sub-systems, mainly between the epistemic and deontic sub-systems. Because of the polysemous character of the KMS in question, this research constitutes an inquiry into the nature of semantic change. Thus, a conceptual model of semantics (Palmer 1986:97) is applied for further categorization of the sub-systems of the KMS, and it also employs a diachronic approach in the hope that this will help to track down the original meanings of the suffixes and justify the assumption that overtones or peripheral meanings have been derived from the original or basic meaning, and to trace the close interrelationships that exist between the Korean tense, aspect and modality systems. In this etymological overview, emphasis is put on the process itself because the process of expansion of meaning is what most interests the present writer: by what was the expansion of meaning caused? By inference or by metaphor?

This investigation has its basis in the assumption that the system has evolved through some period of time (cf. Hopper & Traugott 1993:143 ; Bybee & Pagliuca 1994:1). For the purpose of this investigation, the concept of modality has been tentatively defined as 'a linguistic device which enables us to qualify our subjective commitment to the objective content of propositions, in case we feel uncertain of our ground or when we wish to be tactful or polite' (cf. Lyons 1977: Ch.17.); also Halliday (1976:24-26); Palmer (1986:14-17); Jespersen (1924:313); Rescher (1968:24-26); Ehrman (1966:124);

Joos (1964:123); Searle (1983:166), etc.¹ A cognitive view of modality, that the individual assimilates any given piece of information, transforming or filtering it according to his schema, is also accepted to justify the subjectivity of modality (see Widdowson 1984:54).

For the formal criteria, this study established a set of necessary and sufficient conditions such that every permitted use of a form will be allowed by these conditions, and every rejected use of the form will be disallowed by these conditions. This study also tries to establish general meanings of the forms so that their specific meanings are always predictable on the basis of the interaction of the general meaning of the item with features of the context, i.e. where the meaning itself would be invariable, and they are tested by their acceptability of concordance. The immediate linguistic context of a modal suffix often provides evidence of its meaning or its relationship with other modals. In this case the modal seems to be redundant in that its meaning is already signalled by some other form, especially by adverbials (Hoey 1997:73).

The acceptability of those meanings is judged by reference to my own intuitions as a native speaker of Korean. I have also taken the liberty to use my native speaker's intuitions to construct sentences demonstrating the use of the Modern Korean modal suffixes. Not all modal suffixes will be considered. However, the number investigated is large enough to get a clear picture of Korean modality.

There are two major morphological distinctions that need to be made in relation to modal suffixes. The first is between mono-morphemic and poly-morphemic suffixes. This mono/poly-morphemic distinction is useful because poly-morphemic modal suffixes are quasi-modals in that their morphosyntactic characteristics are marginal and on the way to grammaticalization (see IV.3, V). Secondly, the distinction of 'pre-final' and 'final' suffixes is useful because pre-final suffixes involve the tri-functional TAM system (see IV.1.2.), whereas final suffixes involve the bi-functional Honorific-modal system (see IV.3).

This study accepts both minimal and maximal specification approaches. The former is interested in formulating general characterizations of words or morphemes and the

¹ Whenever speakers or writers say anything, they encode their point of view towards it: whether they think it is a reasonable thing to say, or might be found to be obvious, questionable, tentative, provisional, controversial, contradictory, irrelevant, impolite or whatever. The expression of such speakers' attitudes is pervasive in all uses of language. The fact that all utterances encode such a point of view is a central topic in linguistics (Stubbs 1996:202).

latter in the specific meanings in particular contexts which are derived from the general meaning of the words or morphemes in question combined with the contribution of neighbouring words or morphemes.

This study emphasizes maximal specification theory because minimal specification theory focuses only on the logical relations such as inference, entailment, and presupposition, ignoring such linguistic devices as metaphor, and ambiguities caused by logically unrelated domains (Taylor 1995:112). Furthermore, in the diachronic process, the transition from deontic to epistemic modalities has been repeatedly described as being the result of metaphor (Bybee and Pagliuca 1994:11). This seems to be partly responsible for the fact that the same forms are used for expressions of both epistemic and deontic modalities, and this clearly shows that the relationship of the two sub-systems is partly that of 'logic', leading to the idea that two seemingly distinctive systems are housed under the one roof of the modality system. Thus, both inferential and metaphoric interpretations will be used for the explanation of the meaning extensions in the KMS (see IV.1, 2 & 3).

In the course of discussion in Chapter five, interesting pieces of evidence seem to emerge that favour and support the disputed hypothesis that synchronic rules reflect the diachronic development of the Korean modal suffixes. For the samples of the diachronic study, existing sample texts which have already been researched by previous scholars have been selected and refuted. My intention here is to reinterpret and redefine the existing interpretations from a new perspective.

The development of the Modern Korean modal suffixes can be traced from the corpus of inscriptions on stone monuments and *Itwu*, which in broad sense is a method allowing Chinese to be read out as though Korean characters. Other sources are '*Hyangka*' in Middle Korean, and '*Enhay*', in which Hankul characters (which were invented in 1445) were placed alongside the Chinese characters to show what suffixes are added to the standard Korean glosses of the Chinese.

This study is divided into five chapters: The introductory chapter is followed by an account of the concept of modality as defined by previous scholars, and these accounts are reviewed and examined to determine whether earlier accounts are adequate for our purposes. this review also provides both a theoretical background and some examples to be discussed in more detail in the following chapters. The third chapter deals with

some typological characteristics of the Korean modal suffixes. In the fourth chapter the core meanings and types of concepts of modal operators are accounted for, relying on the informant's intuition on extended sentences where modal meanings are intensified by the extensions, and a meaning system of the Korean modal suffixes is established, keeping in mind the interrelationship of the sub-systems. The fifth chapter is devoted to an attempt to trace the origin of Modern Korean modal suffixes found in classical manuscripts. The final chapter summarises the findings of the thesis.

Chapter II. A Review of Previous Studies of Modality

II.0. Introduction

Modality is a complex topic and cannot be adequately accounted for within a single discipline. An integrative approach will therefore be followed, based on a review of previous works within three approaches. The review starts with the philosophical orientation to modality (II.1), followed by the linguistic approach (II.2), and then the cognitive approach (II.3). Finally, previous studies on Korean modality will be reviewed (II.4) prior to the establishment of the hypothesis of this study.

II.1. The Philosophical Approach to Modality

The exploration of the concept of modality is known to have commenced with ancient philosophers. Aristotle's 'De Interpretatione'² has fascinated subsequent philosophers. Their concerns have been to consider how a proposition varies in different possible worlds: 'propositional attitudes'³, so to speak. This line of enquiry has steadily evolved until the rise of the linguistic philosophers of our century. They are usually divided into two groups: the early Wittgenstein, Carnap, Quine, Davidson; and the later Wittgenstein, Austin, Grice, Hare, Searle and Strawson, among others.

In brief, the major concern of the former group was with the truth conditions of propositions and their interest in modality was as a part of the verification process of a proposition. Accordingly, their arguments dealt with notions of *necessity*, *possibility*, *impossibility*, etc. The scope of their study subsequently expanded to include those of *obligation*, *permission*, *knowledge*, *perception*, *memory*, *hope*, *striving*, etc.

The propositional attitude was their central concept and it was passed down from Russell to his disciple Wittgenstein. Quine (in Magee 1978:168) explains that the notion of modality is expressed by sentences containing subordinate sentences, e.g. X believes that P; X hopes that P; X fears that P; X rejoices that P, etc.

² *Aristotle's Categories and De Interpretatione*, Tr. By Charles, E. Butterworth (1983:Ch.12) Princeton: Princeton University Press,

³ Propositional attitudes, states like believing, desiring, and intending, play a major role in many of our theories, both in philosophy and science (Quillen, K. 1986:133).

This notion of the propositional attitude is further developed in the second group's approach to the idea that meaning derives from *use*. They have been influenced by the later Wittgenstein, and their aim is to elucidate our knowledge of language rather than to reduce it to observations of linguistic behaviour. Unlike the logicians, they do not investigate the simplest cases such as descriptive, indicative sentences. They treat complex ones such as imperatives, and non-truth conditional sentences. They elucidate the relation of language to the speaker, the actual user.

Austin (1962:13) uses the phrase *speech act* to indicate that language has no meaning, no existence outside the action for which it is used; sentences are generated in actual situations and one can really understand their meaning only if one understands the intentions of the language-users who utter them. He questions whether or not propositions that are not verifiable could be said to be meaningful, e.g. 'Do you take this woman to be your lawful wedded wife?' is only meaningful when said by a priest performing a wedding ceremony. Similarly, 'I bet'; 'I apologize' and other such performative phrases only have meaning within a given situation where the propositional attitude is involved.

Searle (1979:13) proposes to distinguish Constative from Illocutionary Force. He explains that Illocutionary force is derived from the relationship between the speaker's intention, the rules and conventions of the language, and the conditions under which he makes the utterance. Although he does not clearly specify 'modality' here, there already exists a similarity between his notion of 'Force' and modality. In his account of the process of Illocutionary Force, he asks how our mental states represent states of affairs in the world, and replies that some of our mental states are directed at or are about things outside ourselves. For example, if one has any belief, fear, hope, desire about something, it is one's subjective mental state of intentionality that is represented, i.e. the speaker's subjectivity is implied in the utterance. Here, it can be deduced by the modal notion that *directiveness* is concerned with *deontic* and *aboutness* is concerned with *epistemic* modality. He relates the subjective intentionality of mental states to the intentionality of the speech act and makes it clear that the involvement of the speaker's subjectivity is essential in the use of language. This process imposes intentionality on objects or facts that are not intrinsically intentional, e.g. the sentences 'I see that it is raining', 'I believe that it is raining' or 'I state that it is raining' have the same

propositional content of 'it is raining' but have different intentionalities of 'I see', 'I believe' or 'I state'. He generalizes that the speaker conveys a whole set of beliefs, desires and intentions in sentences.

Hare (1952:150) provides us with invaluable criteria to demarcate the boundary of deontic and epistemic modalities. He suggests a distinction between Phrasic and Neustic sentences whose propositions deal with fact and value respectively. He postulates that we conventionally accept that fact is independent of our wish, intention, hope, etc, and its criteria are truthfulness and rightness. On the other hand, value is dependent on our wish and intentionality and its golden rules are fairness and applicability. The notion of value, excellence or goodness carries within it the notion of 'worthwhileness' passing into 'obligatoriness' in recognizing it as worth having, worth doing or worth being. Thus, 'X is right' is equivalent to 'X is worth approval' and 'X is wrong' means 'Do not do X' in the imperative, in the process of satisfying desires we discover values that are worth desiring. So, the notion of *right* relates to the notion of *value* and again it relates to the notion of *desire*. This semantic relationship between the two systems leads to a possible answer to the general inquiry into how polysemous linguistic forms came to exist.

Von Wright (1951:1-2) established a framework for modal concepts. He asserts that a given event or proposition may be qualified by a particular worldview, state of affairs, set of principles, etc, and such frameworks are referred to as 'modality'.

He distinguished between four modes of modality. These are:

- The *Alethic* modes or modes of truth
- The *Epistemic* modes or modes of knowledge
- The *Deontic* modes or modes of obligation
- The *Existential* modes or modes of existence

On the other hand, Rescher (1968:24-26) further categorized the modal modes with glosses where needed. These are:

Alethic (truth): 'It is *true* that P.'

Temporal (time): 'It is *sometimes /mostly/ always, etc.*, the case that P.'

Boulomaic (desire): 'It is *hoped /feared/ regretted/ desired* that P.'

Evaluative: 'It is a *good/ wonderful/ bad* thing that P.'

Casual: 'The state of affairs will *bring about /prevent* its coming about that P.'

Likelihood: 'It is *likely* that the case is P.'

These modes are integrated into two modes - Epistemic and Deontic modalities - by F.R. Palmer (1986) (see the following section).

II.2. The Linguistic Approach to Modality

Linguists' approaches to modality have traditionally focused on an examination of the behaviour of the modal auxiliaries, and the ways in which they affect the meaning of the sentence or clause in which they appear. They start from classification and generalisation of the modal auxiliaries and particles, and then find the relationship between their forms and functions, thereby establishing their meaning system. In order to do so, they use mainly two methods: one is based on the theory of componentiality, and the other is on that of archetypal meaning.

Jespersen's (1924:320) definition and categorization of the system form a cornerstone in the study of modality. His concept of modality has been widely accepted by philosophers and linguists, especially by Wittgenstein and Austin. He defines modality as expressing certain 'attitudes of the speaker's mind' towards the 'content' of the sentence. His division of modality into a binary system has evolved to that of epistemic and deontic modalities. He suggests dividing the system into two sub-systems according to whether they contain an element of 'will' or not.⁴ It is clear here that by 'will' he means the speaker's volition. And his concept of Tripartition has been understood as a continuous system according to the degree of intensity. Jespersen also explores the evolution of the English modal auxiliaries from transitive verbs in Old English. He verifies his supposition by a diachronic analysis of the transitive verbs. Most interestingly, his proposal to classify the modal verbs as a category of transitive verb is

⁴ Jespersen (1924:320) divides the notional categories of 'will' as follows: Jussive, Compulsive, Obligative, Advisory, Precative, Hortative, Permissive, Promissive, Optative, Desiderative, Intensive, Apodictive, Necessiative, Assertive, Presumptive, Dubitative, Potential, Conditional, Hypothetical, Concessional.

in the same line as that of Generative-Semanticists, who also think modal auxiliaries function as transitive verbs in the semantic structure (Fillmore (1968:1-18).

Searle's (1979:13) concept of 'speech act' is in principle along the same line as that of Jespersen(1924:320). The following table shows this:

Jespersen	=	Searle
Content of sentence	=	Proposition
Speaker's attitude	=	Illocutionary Force
Without Will	=	Constative
With Will	=	Performative

Jespersen's notion of Tripartition is more interesting from a semantic point of view. He assigns the notions of necessity, possibility, probability, and those of obligation, permission, and prohibition on a scale of degree of intensity, classifying the notions of necessity, possibility and impossibility as basic (core) meanings and the notions of obligation, permission, prohibition as peripheral meanings because the latter meanings are derived from the former and the notion of volition, which is an exponent of the speaker's will. This generalization can be restated as the following equation :

necessity	+	volition	=	obligation
possibility	+	volition	=	permission
impossibility	+	volition	=	prohibition

This formula is reminiscent of an analogy of colour mixing where shades of colours result from the mixture of fundamental colours. In this regard, his generalization is neat and simple but in order to postulate such nuances of meaning as Pretentive, Anxietive, Compulsive and Advisory, we need to add various components, e.g. components representing authority, social norms, morality, ethical responsibility, etc. on one hand, and degrees of intensity of belief, on the other. Thus, the more complicated process will produce peripheral notions of modality from core notions, e.g.

necessity + volition + duty = compulsory

Accordingly, it is possible for us to find numerous modals carrying nuances of modality.

Joos (1964:149) expands the horizon of the study of modality by applying the distinction of markedness / unmarkedness to the meanings of English modals. He proposes to categorize finite verbs as unmarked modals expressing the speaker's subjectivity because finite verbs also qualify truth conditional-factual assertions as the auxiliaries *shall*, *will*, *can*, *may*, etc. do, and for the latter group he assigns markedness. We can safely interpret his assumption as there is no genuine sentence that does not include modality. I agree with this view because it is hard to think of any sentence in a natural language that is not manipulated by the speaker⁵. Thus, every sentence has an underlying matrix sentence, which represents the speaker's subjectivity, e.g. 'I assert that X'; 'I assure that X' etc. It is interesting that his underlying structure of modality is in accordance with that of Chomsky (1957:7), which also gives the modal auxiliary a definite place as predicate.

Joos also attempts to characterize the meanings of modality in terms of a three-dimensional matrix: the eight modal auxiliary verbs of English are characterized semantically by their participation in three kinds of binary oppositions. Each modal auxiliary consists of three features of meaning. They are considered either 'Adequate' or 'Contingent'; either 'Casual' or 'Stable'; and either 'Assert' the event or indicate 'Potentiality'. Joos saw meanings of the modals as follow:

<i>can</i>	:	Adequate	Casual	Potentiality
<i>may</i>	:	Contingent	Casual	Potentiality
<i>must</i>	:	Adequate	Stable	Assurance
<i>will</i>	:	Adequate	Casual	Assurance
<i>shall</i>	:	Contingent	Stable	Assurance
<i>ought to</i>	:	Contingent	Stable	Assurance

⁵ Exceptions can be found when we refer to Halliday's (1976:189) refutation that Imperative sentences must be excluded from the domain of modality on the ground that modal markers, in this case modal auxiliaries, do not appear in the surface structure of Imperative sentences, and think of modally neutral sentences in some languages.

<i>need</i>	:	Contingent	Stable	Potentiality
<i>dare</i>	:	Adequate	Stable	Potentiality

He assigns each modal a unitary combination of the semantic components on the analogy of phonological features. However, his terminology is too abstract.⁶

Ehrman (1966:10) clearly sets out the concepts of 'basic', 'use' and 'overtone' meanings for the description of the semantic system of modality. Her 'basic' meaning is the most general meaning of a modal, the meaning which can be applied to all its occurrences, for which context is unnecessary. The 'use' is a meaning conditioned by specific sentence elements and features of non-semantic interest, and 'overtone' is a subsidiary meaning which is derived from the basic meaning but which adds something of its own. 'Overtone' is determined by elements of the context which cannot be identified, isolated and listed. All the occurrences (or realizations) of a modal may have either a 'use' or an 'overtone'. For example, the basic meaning of *can* occurs in sentences like 'You *can* get something' and 'You *can* get a job working in a grocery store'. Here, the auxiliary *can* has a basic meaning denoting that there is no obstruction to the action of the lexical verb 'get' of which *can* is an auxiliary. She explains the term 'use' in the meaning of *can* using an example which expresses a Permissive meaning for a prohibitive sentence: 'Stop that! You will wake up the whole building. Wally *can't* go any place at this hour.' She gives the following example for a better understanding of the notion of 'overtone meaning': 'A dark room *can* be scary,...', where it has a Presumptive meaning. Her notion of 'basic meaning' is dubious and not clear when we trace the meanings of modal auxiliaries, e.g. *can*, whose original meaning was 'to know', which is rather close to the overtone meaning of 'presumption'.

Halliday (1976:189) divides the functions of English auxiliaries into two categories: one is Modality related to the Interpersonal function, and the other Modulation related to the Ideational function⁷.

He defines Modality as 'the speaker's assessment of probability and predictability

⁶ Joos (1964:149) also explains other terms with such abstract definitions as minimal, maximal, completeness, deficiency, penalties and immunity.

⁷ Halliday (1976:20) explains the term *Ideational function*: 'Whatever the adult is doing with language, he needs to exploit its generalized ideational potential, its potentiality for expressing a content in terms of his experience of the real world' and continued 'There is just one *macro-function* which embodies all use of language to express social and personal relations – all forms of the speaker's intrusion into the speech situation and speech act – *the interpersonal component*.'

toward the thesis, which is expressed in modal auxiliaries' e.g. 'This gazebo *may/could/must* have been built by Sir Christopher Wren.' Here, the speaker's assessment is expressed by *may, could, must* and 'This gazebo has been built by Sir Christopher Wren' is the thesis. However, he asserts that even the modals, when they do not express the speaker's comment on or assessment of the proposition, are said not to belong to the category of Modality but to that of Modulation. For example, in the sentence 'John *can* swim' *can* expresses Ability, it is categorized as an instance of Modulation because it is a part of the thesis and has an Ideational meaning. On the other hand, the possibility sense of *can*, in 'John *can* not be so busy (=Surely, John isn't busy)' belongs to Modality.

Halliday's distinction between Modality and Modulation is not perfect because one can detect the speaker's subjective comment in the underlying matrix sentences and the auxiliary *can* which he used to verify his assumption is the only one among the eight English auxiliaries that has two meanings of Modality and Modulation, and his definition is confined only to the Epistemic meanings. This becomes clear when we think of Imperative sentences. It is a well-established fact that Imperatives express the speaker's volition in a social context belonging to deontic modality.

Thus, the distinction of Modality/Modulation cannot exist, and this study suggests reformulating Halliday's definition: Modal meanings are derived from two functional origins, one is from the Ideational function to express the speaker's varying degree of belief in the Thesis, and the other from the Interpersonal function to express the speaker's involvement as an intruder wishing to impose his volition on another.

Viewed as such, this study finds a parallelism between Halliday's and Palmer's (see below) distinctions and proposes that Halliday's concept be accounted for along similar lines to Palmer's notion of the deontic/epistemic distinction.

Leech's (1969) view-point about the meanings of modals is to compare them to the bone structure of the human body; in his explanation of the logical relationships between the modal auxiliaries *can, may, must, will* and *shall*, he categorizes the semantic system of modal usage using three sets of oppositions: 1) Permission-Obligation, 2) Possibility-Necessity, 3) Willingness-Insistence, holding that they are governed by the inversion rule, e.g. the sentence 'These lines *can't* be by Shakespeare' *can't* be tested by the inversion rule. 'It is *not possible* for these lines to be by

Shakespeare' corresponds to 'It is necessary for these lines *not* to be by Shakespeare', where the notions of possibility and necessity have a corresponding exponent.

He also makes a distinction between Theoretical and Factual Possibility and between Theoretical and Factual Necessity. Theoretical Possibility, expressed by *can* in 'The road *can* be blocked', is congruent to 'It is possible for the road to be blocked', while Factual Possibility, expressed by *may* as in 'The road *may* be closed, is congruent to 'It is possible that the road is blocked'. The first sentence describes a theoretically conceivable happening, whereas the second feels more immediate, because the actual likelihood of an event is being considered. Thus, Factual Possibility is stronger than Theoretical possibility in the degree of intensity of the speaker's belief. Similarly, *have to* in 'Someone *has to* be telling lies (=It is impossible for everyone to be telling the truth)', and *must* in 'Someone *must* be telling lies (=It is impossible that everyone is telling the truth)' exhibit a parallel distinction.

However, the degrees of intensity of Theoretical and Factual Necessity can vary according to the situation and the speaker's subjectivity. Leech's logical account of modality does not include other important modal notions such as Promissive, Dubitative, Pretentive and Command, which are pragmatic rather than logical.

Lyons (1977:Ch.17) defines modality as 'expressing the speaker's opinion or attitude towards the proposition he expresses'. He particularises a difference between 'mood' and 'modality': 'Mood' also indicates the speaker's attitude, expressing a wish, issuing a command, or asking a question. However, it is essentially a grammatical category, frequently realized in the verbal forms in Indicative, Subjunctive and Imperative sentences. However, this study is not satisfied with this distinction because it is based purely on formal criteria.

Lyons specifies that an epistemically modalised sentence can be described as consisting of at least two sentential structures in the deep structure: a higher one characterised by the speaker's subjective assessment and a lower one, a proposition, which is dominated by the former. The higher structure, whether it is represented by modal verbs or other non-verbal modal expressions, is quantifiable with respect to certain degree of probability, which ranges from 0 to necessity 1. Although expressions of the Epistemic modality, such as *may* or *possibility*, are the exponents of relative conceptions which cannot be quantified by means of numerical variables in actual

discourse, we can express at least three different degrees of factuality in English, for example, by selecting a modal adverb over another among a set which includes *certainly*, *probably*, and *possibly*.

Lyons points out that we can put modal categories sharing common semantic features at a relative point on a semantic cline. In his later discussion, Lyons subdivides the three scales by taking into account such semantic characteristics as subjectivity and objectivity in epistemically modalised utterances, and by including Tense in the categories of modality.

Although comprehensive and theoretically consistent, his discussions in the long chapters fail to include the deontic domain of modality, which is also thought to be an important characteristic of the system.

Palmer's earlier work on modal auxiliaries was peripheral in his verb studies (Palmer, 1965, 1974, 1977, 1978 and 1979a) and his full-length treatment of modality was that of 1979b. This is known as one of the first studies of modality as a single grammatical category (cf. Johnneson 1976; Hermeren 1978).

Palmer (1979b) introduces von Wright's (1951) modal modes of Alethic, Epistemic, Deontic, and Existential. Later, he reduces these to two categories (1986): Deontic and Epistemic.

He establishes the category of modals as an autonomous grammatical category (1979b) in terms of the formal criteria of NICE properties⁸, and he uses the Survey of English Usage as a source of linguistic data. Palmer (1986) analyses the modals based on the notions Epistemic, Deontic, Dynamic, Necessity, and Possibility. He examines vast data from many different languages (74 languages in all but no Korean data!).

Palmer proposes a number of definitions encompassing types of modality as its sub-systems. His categorization of Epistemic/Deontic modalities is conclusively laid down after long contemplation. However, further systematic accounts might have been attempted for the notional types: the place of both Judgements and Evidentials within the Epistemic system is not stable and the criteria of distinction between the notional

⁸ Palmer (1974:15) explains that NICE properties place modals in the same class as the 'primary' auxiliaries BE, HAVE and DO. They are:

- i) Negative form with -n't (*I can't go*)
- ii) Inversion with the subject (*Must I come?*)
- iii) Code (*He can swim and so can she*)
- iv) Emphatic affirmation (*He will be there*)

types are uncertain. He could have examined the literature by the linguistic philosophers and used it in anticipation of his observations (though he discusses Searle and von Wright to some extent). Also, consulting the findings of cognitive science might have been beneficial for further refinement of the notions. We frequently come across vague expressions, such as "It is not immediately obvious why two such different notions should be handled in many languages with the same devices" (Palmer 1986: 18,121-125).

Hermeren (1978: 149) establishes a classificatory system for the meanings of modals. He divides the concepts into three groups in terms of the conceptual categories Internal, External and Neutral, and generalizes: 1) If the subject of a sentence is 'actor', a particular modal is Internal, e.g. 'John *won't* work hard'. Here, it is John who does not work hard. The modal indicates Volition or Ability. 2) If the subject of a sentence is 'goal', a particular modal is External. e.g. 'He may go'. Here, he is the deep subject of 'go' and at the same time the object of 'I permit'. 3) If the modality is neither Internal nor External it is Neutral. e.g. 'He *may* work hard. Here, the modal *may* expressing Probability indicates neither the Internal inclination nor the External granting of Permission upon the subject 'he'.

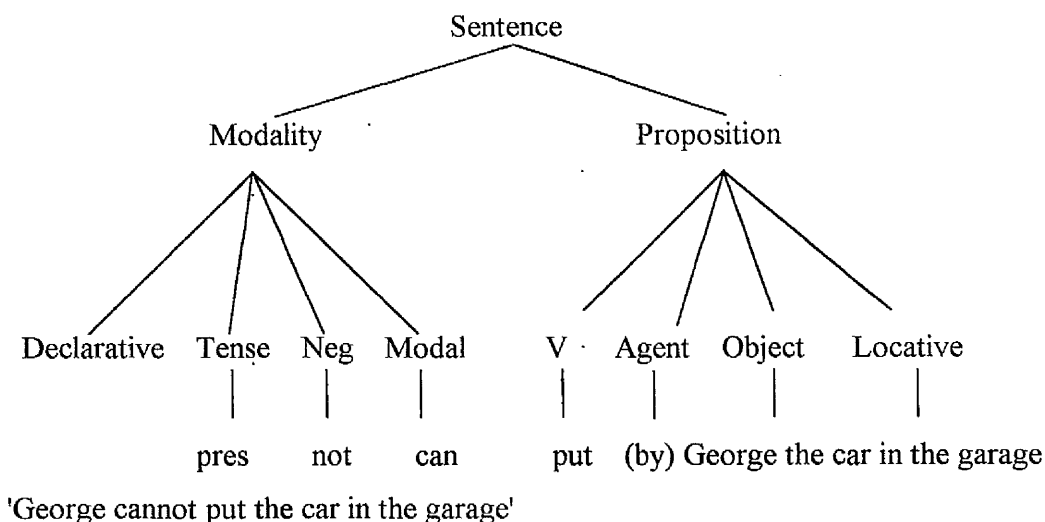
Hermeren's classificatory system according to the three conceptual categories seems to be as neat and economical as he claims, in accounting for the central meanings of a modal. However, when it comes to what scale it should be included on, the system runs into difficulty, for a modal may share all three characteristics in different contexts. Even in the same sentential context, a particular modal may share more than one conception. To solve this problem, he applies 'componential analysis' to one of twenty components of meaning, or sometimes combines as many as four components, e.g. FUTURE + PROBABILITY + APPROPRIATE + HYPOTHESIS (Hermeren 1978:149ff).

He uses the tool of paraphrase for analysis of meaning. However, his purely semantic approach prevents us from establishing formal distinctions between modals. His scale of modality sometimes forces unrelated modals into the same category frame, e.g. Ability into the Volition scale; or Hope into the Obligation scale, etc.

Fillmore (1968:23)⁹ distinguishes sharply between the propositional content of a

⁹ Fillmore (1968:23) states it that "In the basic structure of sentences, then, we find what might be called the 'proposition', a tenseless set of relationships involving verbs and nouns (and embedded sentences, if

sentence, and the elements that modify this propositional content. In a sentence like 'John may not finish this book', the propositional section of the sentence would be 'John finish this book' and the rest would be present tense, 'may' and negation. Consequently, the first division under the sentence node in Fillmore's grammar is between Proposition on the one hand and the Modality on the other hand. The following diagram shows that categories such as tense, negation, and modality are analysed as a higher predicate.



Bauer (1983:146)

Figure 1. Syntactic Relationship between Proposition and Modality

For Fillmore 'mood' is to be understood as made up of two sub-categories: modal verbs and declarative/interrogative/imperative, and he deals with them in the same way as the Generative Semantics school, i.e. by putting them in a higher predication. There is common ground between Interpretative and Generative Semantics¹⁰ with regard to the modal auxiliaries (Chomsky 1957; Jackendoff 1972; McCawley 1970) :

there are any), separated from what might be called the 'modality' constituent. This latter will include such modalities on the sentence-as-a-whole as negation, tense, mood, and aspect. The first base rule, then, is: Sentence => Modality + Proposition. S => M + P."

¹⁰ Palmer (1976:123) explains these terms: The information contained in the deep structure will allow us to do two things. First, we can generate the surface structures; Secondly, we can arrive at the semantics from the deep structure by semantic interpretation. It is in this sense that Chomsky's model is 'interpretative'. Other scholars argued that, if there is deep structure, it must be much deeper, so deep, in fact, that it is essentially semantic and not syntactic. In that sense the semantics is not interpretative, since it is the actual source of the syntax, it is 'generative'.

1) They divide the meanings of the modals into two groups: Epistemic and Root.¹¹ Epistemic modals have a meaning that expresses the speaker's knowledge and judgment towards a proposition, while Root modals express the volition, inclination, capacity, permission or obligation of the subject of the sentence.

2) Both theories maintain a similar view that Epistemic modals generally dominate the entire proposition, softening its assertive force, whereas Root modals modify only the main verb following them.

The reason for Generative Grammarians' simplification of the meanings of the modal auxiliaries is to give auxiliaries the function of operator of transformations, dominating the proposition in the case of Epistemic modals, and the VP in the case of Root modals. However, their theories would not need two sub-categories if the matrix sentences were applied to Root modal sentences: 'I order that X', 'I promise that X' etc. In this regard, their models are basically the same as that of Jespersen (cf. Jespersen's model in the previous pages).

II.3. The Cognitive Approach to Modality

Since the study of modality is a complex area, it is inevitable that we should attempt an integrative approach for the facilitation of the investigation. As was pointed out earlier, philosophers have been more interested in Epistemic modality for the reason that their major concern is to elucidate the concepts of the Necessity and Possibility of propositions (though Hare (1952) and Searle (1983) developed considerable arguments on Deontic modality).

On the other hand, cognitivists are more concerned about Deontic modality because their tracing of modality acquisition shows those children develop Deontic modality prior to the development of Epistemic modality at an early stage of their language acquisition (Piaget 1969; Hirst & Weil 1982; Kuczaj 1983).

Their hypothesis is that the use and comprehension of modal expressions depend on specific types of knowledge of the world, and since the way children comprehend the

¹¹ Palmer (1986:103) speculates on the term *root*: This terminology seems first to have been used by Hofmann, J. R. (1976) 'Past tense replacement and the modal system', in *Syntax and Semantics I*, ed. by McCawley, New York: Academic Press, 85-100.

world changes as they grow older, it should also follow that their usage and comprehension of modal expressions will change (cf. Perkins 1983:132).

According to Perkins, the Epistemic meaning of modals never appears until the age of 5. However, from the age of 6 onwards the Epistemic usage increases as the child grows older. Usage of *can* at the age of 6 to age of 12 was researched according to the different usages of *can* as 1) Ability as Core meaning, 2) Permission as Deontic meaning, 3) Possibility as Epistemic meaning, and 4) Suggestion as Deontic meaning:

Age	Ability	Permission	Possibility	Suggestion
6	30.4%	38.5%	21.5%	9.6%
10	32.7%	15.5%	40.4%	11.8%
12	25.6%	3.4%	50.4%	14.5%

Table 1. Different usages of Deontic & Epistemic meanings in Child Language
Perkins (1983:146)

Data reported in Perkins (1983:146) confirms this: 93% of *gonna*, 87% of *will*, 100% of *want to* express Volition (the informants are pre-school children).

Perkins' formulation of the relationship between the two sub-categories is quite in agreement with his hypothesis. However, the present study does not agree with his idea of Dynamic modality because it can be related to Deontic modality¹²: If one is unable to do X, one cannot be obligated to do X. The suggestion that Possibility and Necessity are related to Obligation in the Deontic system implies that he is intuitively implying that the pairs of meanings are extensions of oppositions.

Piaget (1969) relates cognitive development to the development of modal usage: his concerns are essentially judgement of obligation, and rational thought about knowledge of facts in the development of a child's language.

Turner (1975:19) remarks that modal expressions are first used at the beginning of the egocentric stage when the child cannot consider two aspects of the same situation at

¹² Palmer (1986: 102) explains: "Dynamic modality is said to be concerned with Ability and Disposition. Within Dynamic modality, however, I included both Neutral and Circumstantial modality, as in the MUST examples above, and 'Subject-oriented modality illustrated by CAN or by the Willingness use of WILL."

one and the same time: he will consider one, for example, to the exclusion of all other relevant information. His only use of modals is *will* and *can* for himself (to indicate willingness, inability, or request for permission), or allow or prohibit an action by his addressee; hence, he is concerned only with Deontic use. He does not use modals to refer to the willingness or ability of a third person. After this stage (age 7), he behaves according to mutually agreed rules and expresses social constraints and co-operative attitudes; thus, it is again Deontic modality that a child develops first. In the last stage, he is remarkably sensitive to the information given to him, he questions it and assesses its possibility; hence the development of Epistemic modality occurs after Deontic modality. The only lexical Epistemic modal expressions in this final stage are: *think, expect, reckon, suppose, infer, hypothesize, deduce*, etc... They would presuppose a considerably sophisticated knowledge of human reasoning processes which would be found only at an advanced stage (age of 12).

On the other hand, Kuczaj's (1977:12) developmental stage is earlier than this: the results of Kuczaj suggest that children between 2.6 and 3.6 produce in normal conversation more utterances with Deontic modals than with Epistemic modals when compared with the age of 4.0 and 5.9.

Aksu-koc (1988:204) suggests in her observation of acquisitional patterns that aspect and modality are more basic categories in Turkish than tense, and inflections typically treated as indicators of tense have to be reanalysed in terms of these functions. Her developmental data suggests that these categories should receive at least equal weight to tense. She presents a good illustration of the view that it is very difficult to separate tense, aspect and modality in most languages, which however does not preclude the possibility that one category may have primacy over the others in a given language. She reveals that the basic function of any modal particle when first acquired by children is aspectual and claims that children mark aspect before tense or epistemic modality: they make 'concrete' before 'relational' reference and talk about 'objective' aspects of reality before 'subjective' distinctions relevant to discourse.

This study noted that a remarkable parallelism exists between historical and child language development. The Korean diachronic data reveals that the development of aspectual-modal suffixes precedes that of tense (see the development of the KMS in chapter V).

II.4. Previous Studies on Modality in Korean

This section reviews previous Korean modality studies in order to lay the foundation for the following chapter. From the beginning of Modern Korean linguistics, there have existed some sporadic and peripheral accounts of the meanings of modality associated with some specific suffixes. However, modal meanings were not treated as autonomous but as part of tense because the modal category has ontogenetically shared forms with TAM markers (for the relevant concept see next chapter). For instance, S.K. Joo (1910) assigns the modal suffix *-keyss-* to 'future tense' with an intuitive suggestion that it also expresses a meaning of falsity.

Two decades later, S.B. Park (1935) and H.B. Choi (1937) suggested that suffix *-keyss-* has not only temporal meaning but also carries modal meanings of Conjecture and Possibility, and their claims were accepted without any refutation for decades. However, it was in the 1960s that some scholars established an autonomous position for the category of mood.¹³ Subsequently, such suffixes as *-keyss-*, *-te-*, and *-kwu-* have been arguably considered as mood suffixes.

Diachronic studies on these suffixes were delayed until later because it was only in the 1950s that research on Middle Korean morphology began to draw the full attention of Korean scholars. Furthermore, their subject matter was limited to the *honorific* system and the functions of certain obsolete suffixes that are not familiar in Modern Korean. Furthermore, diachronic studies of Korean were limited in scope to fifteenth century data due to the fact that data for stages prior to the fifteenth century were so scarce (K.M. Hong 1946; S.N. Lee 1961; B.C. Park 1968; J.M. Lee 1973; Y.K. Ko 1974, 1987; W. Heo 1975, 1987; S.D. Kim 1987).

H.S. Lee (1947, 1949) laid the foundation of Middle Korean and S.N. Lee (1961) started to use the term 'mood' in his *A Study of Middle Korean* (1961). It is he who introduced the concept by defining 'divergent expressions of the speaker's *describing attitude*'. He tries to introduce the notion of *volition* for it though he does not actually use the term 'modality'.¹⁴

¹³ Jang (1985:1-15) claims that "*modality* must be distinguished from *mood* because their concepts are different: the speaker's various attitudes towards the real event are expressed by *modality*, while the speaker's various attitudes towards the listener are expressed by *mood*." See also Palmer (1986:14) *Mood and Modality*.

¹⁴ Palmer (1986: 21) draws a clear distinction between 'mood' and 'modality'. The distinction between

It was not until the 1960s that a systematic approach to diachronic research was firmly established in Korean linguistics (W. Heo 1975, 1987, 1988). Y.K. Ko (1981) launched massive research based on data taken from Modern and Middle Korean. He establishes sub-sets of the mood system by making a formal distinction between the final suffixes *-ney*, *-kwu-*, *-ci*, etc., and pre-final suffixes *-keyss-*, *-te-*, claiming that the former group manifests Imperative, Promissive, Permissive and Co-operative, and the latter group indicates Exclamative and Explanative, respectively. However, these were not exclusively modal but individual modal senses in conjunction with meanings of mood.

On the other hand, C.S. Shin, 1976; K.S. Nam, 1972; H.M. Shon, 1975b; J.S. Seo, 1977b; C.G. Kim, 1980; and H.B. Yim, 1982 categorized them as a *compound tense* system with senses of Perceptive, Reaffirmative, Interjective, etc. They paid more attention to the suffix *-keyss-* than others, and interpreted in a variety of ways its general meaning. Analyses of these controversial interpretations of the modal suffix *-keyss-* are shown in the following table:

1. future tense with meanings of falsity, conjecture and possibility - S.K. Joo (1910), H.B. Choi (1937), K.M. Hong (1946).
2. future tense with divergent peripheral meanings of conjecture and intention - W. Heo (1960), S.N. Lee (1961).
3. future tense with imperative, promissive, permissive and cooperative mood - Y.K. Ko (1965), S. Martin (1965/1992).
4. future tense, at the same time a modal expressing tentative and presumptive senses - J.S. Na (1970), S.D. Kim (1974).
5. modality with meanings of conjecture, ability, uncertainty and intention - K.S. Nam (1972), C.S. Shin (1972).
6. modality with core meanings of conjecture, opinion, intention, ability - G.H. Jang (1985).
7. no grammatical category is assigned to it on the grounds that it contains heterogeneous functions such as future tense, volition, and conjecture - I.S. Yang

mood and modality is similar to that between 'tense' and 'time', 'gender' and 'sex'. The term 'mood' is traditionally restricted to a category expressed in verbal morphology. It is formally a morphosyntactic category of the verb like 'tense' and 'aspect', even though its semantic function relates to the contents of the whole sentence.

(1972).

Thus, two main streams of discussion are found in the classification of future tense and modality. It was C.S. Shin (1972) who first introduced the term 'modality' by suggesting that futurity cannot be a core meaning of the suffix *-keyss-*, and that the core meanings of some suffixes have to be categorized as modality rather than tense.

G.H. Jang's (1985) doctoral dissertation is regarded as the first attempt of its kind to describe modality as a single autonomous grammatical category. She proposes that seven hitherto controversial suffixes *-keyss-*, *-te-*, *-nye-*, *-kwu-*, *-ci-*, *-n-* and *-l-* be interpreted as modal suffixes and suggests that they should be classified as a category of modality. She tries to establish general (or 'core' as she puts it) meanings of the suffixes by elucidating the respective modal notions: *-keyss-* as the speaker's conjecture, ability, intention, opinion; *-te-* as the speaker's direct, personal and past perception, *-kwu-* as the speaker's 'new knowledge' regardless of any evidence, *-nye-* as the speaker's 'new knowledge' in contrast to *-ci-* implying the speaker's prior knowledge, and *-n-* and *-l-* as certainty and uncertainty, respectively.

Although her discussion is confined to only seven Modern Korean suffixes, she contributes to the further understanding of this notoriously fuzzy area of linguistics with clarity and systematic description.

However, the meanings she assigned to the suffixes in general were not able to establish their places within the system, and at the outset, her definition of modality is imprecise and incomplete in that it is limited to the epistemic domain which is thought to be one of the sub-systems of modality. It is undeniable, however, that she improves S.N. Lee's (1961:173) definition of mood by distinguishing the two concepts: mood and modality.

However, her distinction overlaps with the deontic/epistemic distinction within the modality system and overlooks the relationship between the sub-systems which is thought to be crucial for the analysis of modality as an autonomous system by most contemporary linguists (Jespersen 1924:320-1; Lyons 1977:452; and Palmer 1986:ch.1&2, among others, and Ch.4 of this study). Secondly, her core meanings of modals are inappropriate and sometimes inconsistent because different levels of abstraction are categorized at the same level, i.e. 'conjecture' and 'opinion', 'conjecture' and 'result conjecture' on one hand, and on the other, 'new knowledge', 'prior

knowledge' etc.; and lastly, her claim that modality cannot be negated is incorrect (see the refutation in the following section).

G.H. Jang's (1985: 46-48) interpretation of *-keyss-* as having the meaning of 'result conjecture' is unacceptable and her data interpretation is vague. She maintains that syntactically, none of the modal suffixes fall under the scope of negation, and their meanings are not controlled by the past or future tense of the predicate, while the lexical items are obligatorily coherent to the actual tenses of the particular referential event. However, it is possible that *-ci* can be negated if preceded by the negator *-ci.anh*, as will be discussed in detail in the following chapter.

In summary, the multi-dimensional studies of modality reviewed in this chapter have characterized a tentative concept of modality and established criteria, a set of necessary and sufficient conditions such that every permitted use of a form will be allowed by these conditions, which will be used in anticipation of the observations of the subsequent chapters.

Chapter III. Typological Approach to the Modal Suffixes

III.0. Introduction

This chapter intends to present the typological features of the KMS.

Prior to direct observation of Korean modality, I will give a brief overview of the typological characteristics of Korean that are relevant to the present study.

Korean is a typical Subject – Object – Verb (SOV) language. While other elements are relatively free in order, the verbal expression always comes at the end of a clause (or sentence), whether the clause or sentence is a matrix one or an embedded one.

Furthermore, Korean is a typical *agglutinative* language.¹⁵ Thus, Korean words are formed agglutinatively by suffixing meaningful units one after another to a stem, namely, various grammatical categories, such as voice, subject and hearer honorifics, tense, aspect, modal and sentence types follow the verb stem in the form of verbal inflectional suffixes (S.O. Sohn, 1995:17-18).

The inflectional suffixes, which are the last elements occurring within the verb, hence *finals*, are grouped into three different categories on the basis of the syntactic functions that they enable verbs to perform. They are (1) Final, (2) Pre-final, and (3) Post-final (see the following sections for the respective functions).

Modality in Korean together with other grammatical categories - aspect, tense and honorifics - is mainly substantiated by suffixes. A number of morphosyntactic parameters of the system will be accounted for in this section. Co-occurrence restrictions will be invoked all through the chapter for the justification of the analysis.

For the purpose of presentation, this chapter starts with the obligatory conditions of the KMS followed by the concept of honorifics as modality. The function of the KMS as predicator in matrix sentence is concerned followed by the consideration of the relationship of the KMS to negation, tense and adverbials. This chapter also proposes a

¹⁵ There are three basic strategies or techniques in encoding relational meaning: 1) An *inflectional language* encodes relational meaning by modifying the lexical base inflection; 2) In an *agglutinative language*, on the other hand, the individual exponents of relational categories are attached one by one to the lexical base leading to word structures which are relatively complex but less integrated because, at least in places, the phonological shape of the suffix may indicate its lexical origin; 3) An *isolating language* does not give overt expression to relational meaning or else does so by employing to this end the same kind of unit as is used for encoding lexical concepts (H.M. Sohn 1986:166 ff).

fixed suffixation order with some morphosyntactic constraints.

Lastly, the whole chapter will be summarized.

III.1. Obligatory Conditions of the KMS

There is a morphological distinction in relation to the KMS: a distinction between final and pre-final modal suffixes because the former involve the TAM system, whereas the latter involve the honorific system (for the concepts of TAM and honorific systems see the subsequent sections and chapter IV).

In Korean the occurrence of a final suffix is obligatory and that of pre-final suffixes is optional within simple sentences (Chang 1996:41; Lee1993:9). In other words, the Korean verb is a 'bound' form. Thus, it cannot stand alone as an independent word and requires the presence of at least one verb-final suffix. This morphological principle of 'closure' presupposes that bound predicates must be closed off by a set of suffixes belonging to the category of final suffixes, which are modal suffixes. Hence, it can be generalized that Korean sentences are always ended by modal suffixes: sentences without modality do not exist even though sentences without tense or aspect do. For example:

1. John-un ka -ss -ta/ ci/ kwuna/ ney/ na.

John Top go Ten Fin

'John went'

2. John -un ka -ss -keyss/ te/ llye/ ltey -ta/ ci/ kwuna /ne / na.

John Top go Ten Pre-fin Fin

'John went'

In examples 1 and 2, the sentences express the same proposition, but the speakers express different attitudes towards the propositional content and make different assumptions about the listener. Example 1 illustrates a sentence with only sentence final suffixes; Example 2 - has pre-finals and final suffixes, where the occurrence of final suffixes is, as was mentioned, *obligatory*.

This position is confirmed as not unique when Palmer (1979:152) points out with reference to a Hidatsa example that “the most remarkable point about Hidatsa is that it is not possible to make what we might call an *unmodalised statement* at all”.

III.2. Honorifics in the KMS

The Korean honorific suffixes are ordinarily divided into three categories: 1) subject honorification, 2) object exaltation, and 3) sentence style. ‘Style’ expresses the relative social rank of the person to whom the speaker is talking. The sentence style is determined by the relationship between the speaker and the listener; it reflects social factors that are external to the utterance itself. This part of the honorific system is not the same as subject honorification and object exaltation. For one thing, it is divided into more levels than these two categories of honorifics. Subject honorification and object honorification are both alike in that they are determined by a referent within the sentence itself. In contrast, the sentence style is something quite different from both because it is determined by something outside the sentence, namely, the rank of the listener. The element that bears the grammatical load of the style is the sentence-final of the predicate (Martin 1992:305-312; Chang 1996:191; Ramsey 2000:239).

The speech level is structurally manifested in the form of sentence finals. Six speech levels, characterized by sentence finals, are schematically introduced by Chang (1996) with reference to the four basic sentence types.

Speech Level	Declarative	Interrogative	Imperative	Propositive
High Formal	-(su)pnita	-(su)pnika	-(u)sio/psio	-(u)psio/-psita
Polite	-(e)yo	-(e)yo	-(e)yo	-(e)yo
Mid Blunt	-so	-so	-so	-so
Familiar	-ney	-na/ka	-key	-sey
Low Intimate	-e	-e	-e	-e
Plain	-ta/la	-(nu)nya	-lla	-ca

Table 2. The sentence type and honorific system in Korea

For their modal meanings of the suffixes in Table 2 see IV.3.

Sentence final suffixes combine the functions of speech level (= honorific system) with

modality. This bi-functional character of sentence final suffixes can be termed as an *integrated* system as is the TAM system.

III.3. The KMS as Predicator

The notion of predication in matrix sentences has been presented by Generative Grammarians (Chomsky 1972; Fillmore 1968): modality is distinct from proposition, and does not contribute to the truth-conditions of the sentences, but predicates the proposition. Example 3 gives the most obvious example of this phenomenon in the KMS, and Figure 2 shows its underlying structure.

3. John -i ka -keyss -ta -siph -ta¹⁶
 John Subj go Mod Fin Prs Fin
 '(I) presume that John is going'

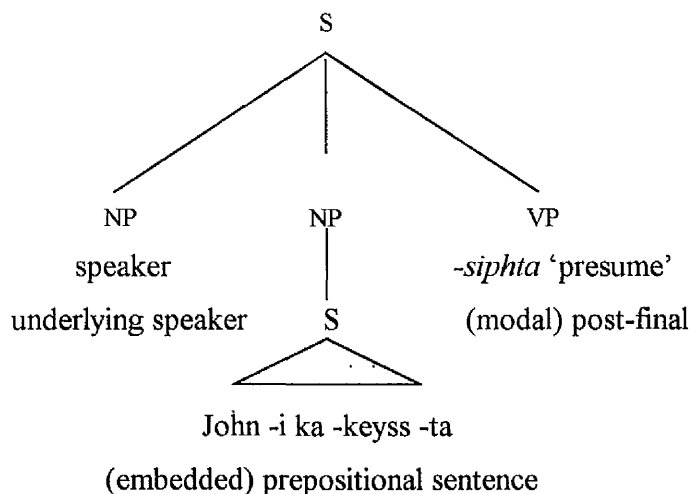


Figure 2. The Underlying Structure of the Post-final Modal suffix *-siph-*.

In 3, Prs *-siph-* indicating the speaker's opinion (presumption) functions as a transitive

¹⁶ Post-final suffix *-siph-* has evolved from a verb expressing 'to presume'. Similar examples are shown in Middle Korean. For example:

pumo ui unhyay lul a nanda hananila
 parents' gratitude Acc know Pre-fin Fin

'I assert that I know my parent's gratitude' (Pak: 58)

Here, a verb *-hananila* 'to assert' is used as a final suffix in matrix sentence.

verb and predicates the embedded proposition.

The best examples of this phenomenon are shown by the post-final modal suffixes, which seem to have been developed from transitive verbs such as *siph* 'to wish' and *po* 'to see'.

Traditionally, Korean scholars, including H.B. Choi (1957:244-45; Martin 1992:1067), asserted that sentences including these verbs are complex sentences because they are followed by such sentence final suffixes as *-ta*, *-na*, *-ci*, etc. and are then extended by a particular group of transitive verbs. However, the present study understands example 3 not as a complex but as a simple sentence, and suggests that these Sentence-final function as predicator preceded by an embedded sentence including a 'Final + Post final suffix construction', on the grounds that: 1) a pause is not allowed between the two units, and 2) the function of predicator is different from that of proper predicate verbs in that it expresses the speaker's opinion, hence, the present study proposes to assign such post final verbs to a category of modal suffixes. Another example is:

4. John -i ka -ss -na -po -ta
John Subj go Ten Req Mod Fin
'(I) presume that John went' (It seems that John has gone)

In 4, the suffix *-po-* expresses the epistemic meaning of conjecture.

Although the modal suffix *-po-* functions as transitive verb, it differs from 'proper' transitive verbs in that it does not take the accusative case marker *-lul* but takes the complement marker *-ko-* or final markers. The following example makes this point clear:

5. * John -i ka -ss -na -lul -siph -ta
John Subj go Ten Fin Acc Mod Fin
'(I) guess John went'

5 is unacceptable because the accusative suffix *-lul* precedes the modal suffix *-siph-*.

III.4. The KMS and Adverbials¹⁷

The acceptability of the KMS can be tested by modal-adverb co-occurrences. Thus, adverbials play a key role in interpreting modal suffixes. This concept of the modal-adverb collocation was originally suggested by Palmer (1986) and elaborated by Hoey (1997) ('*modal adverb collocation*' is Hoey's term). They indicated that the immediate linguistic context of a modal provides evidence of its meaning or its relationship with other modals. Observe the following example:

The adverb *ama* 'maybe' is not allowed in assertive statements. For example:

- 6a. *Ama pi -ka on -ta
maybe rain Subj come Fin
'It must possibly be raining'

Simple conjectural statements, on the other hand, may take *ama*. For example:

- 6b. Ama pi -ka o -lkes.i -ta
maybe rain Subj come Mod Fin
'It may possibly be raining'

However, the deontic suffix *-keyss-*, expressing the speaker's intention, does not co-occur with *ama*. For example:

- 6c. *Na- nun ama ka -keyss -ta
I Top maybe go Mod Fin
'Maybe I will go'

On the other hand, *ama* occurs in sentences where the suffix *-keyss-* is used in an epistemic sense to express the speaker's conjecture. For example:

¹⁷ Profiles of a modal's behaviour with its various adverb satellites is yet a further defining characteristic of the modals themselves. Modal-adverb collocations therefore play a relatively central role in the expression of modality in English (Hoey 1997:4).



6d. Nayil ama pi -ka o -*keyss* -ta
 tomorrow maybe rain Subj come Mod Fin
 'Perhaps, it will rain tomorrow'

The adverbs *kkok* 'surely' and *cengmal* 'really' only co-occur with such suffixes as *-ma*, *-lkkey*, *-llay* and *-lye* which express the speaker's intention. For example:

6e. Nay -ka kkok ka -*ma*
 I Subj surely go Mod
 'I will surely come'

6f. Nay -ka kkok ka -*lkey*
 I Subj surely go Mod
 'I will surely come'

6g. *John -i cengmal ka -ss -*ci*
 John Subj really go Ten Mod
 '*I really presume that John went'

6h * John -i cengmal ka -*na.siph* -ta
 John Subj really go Mod Fin
 '*Really I guess John is going'

In 6g and 6h, the adverb *cengmal* 'really' cannot co-occur with the final modal suffixes *-ci-* and *-siph-* which express the speaker's uncertainty about a proposition. However, if they are used to express a deontic sense of intention they are acceptable.

III.5. Matrix Subject - the Speaker - and the KMS.

One of the characteristics of the KMS is that they exhibit a fairly distinctive set of grammatical forms which express the speaker's own identity not only as an observer but also as an actor in the world. From the concepts of the KMS a common denominator

would seem to be that they are morphosyntactic devices expressing the speaker's involvement, and are realized as predicators of a sentence representing the speaker's own identity in subordinate sentences.

In Korean syntax, the deletion of the first person pronoun is deemed essential in standard practice except where it carries contrastive stress. Any ambiguity caused by such deletion is overcome by the modal suffix system, which is co-referential to the speaker and serves to make meanings explicit. As is in other languages, the role and identity of the listener, including the speaker's relationship with the listener, are made explicit in Korean by modality¹⁸.

From this notion of modality the existence of the speaker in the matrix sentence can be taken for granted and it can be justified when humble honorific suffixes appear co-referentially with the matrix-subject. It should be noted that only modest expressions are allowed on the part of the speaker because this is a social as well as a grammatical norm in Korean. In other words, modal suffixes cannot relate to persons different from the speaker, for example:

7a. *John -i ka -si -na -*siph* -usi -ta
 John Subj go Hon Fin Mod Hon Fin
 '(I) guess John went'

7a is ungrammatical because the honorific suffix *-(u)si-* is not related to John but to the underlying subject of matrix sentence, i.e. the speaker. Accordingly, the high-formal honorific suffix *-(u)si-* does not appear co-referentially with the agentive *John* in 7a.

On the other hand, an agentive subject is exclusively used in a deontic use. For example:

7b. John -un ka -*l.seym.i* -ta
 John Subj go Mod Fin
 'John intends to go'

¹⁸ Sohn, H.M. (1975b: 493-520) also notes that null subject arguments (zero pronoun-ellipsis) are frequently correlated with the presence of agreement on the modals which encode the pronominal features of person, number, the social status, etc. This allows omission of overt arguments in context.

7c. Haksayng -un tosekwan -ul iyongha -*l.swu.iss* -ta
 student Subj library Acc use Mod Fin
 'Students can use the library'

7d. Pi -ka o -*l.swu.iss* -ta
 rain Subj come Mod Fin
 'It will rain'

In 7b & 7c, it is not the speaker but the agents (John and students) who intend to do something. However, in 7d the suffix *-l.swu.iss-* expresses the epistemic sense because the subject *pi* 'rain' itself is not agent.

III.6. Negation and the KMS

According to Lee and Ramsey (2000: 215) negation constructions in Korean are created in two ways: 1) with *an(i)* or *mos* added to the predicate; or 2) by using the negative auxiliary verb *mal-*. These two types of negation are used with different types of sentences. The negatives *ani-* and *mos-* are used with Declaratives, Interrogatives, and Exclamations, and the negative auxiliary *mal-* is used with Propositions and Imperatives: for example, *gaci mal.ca* 'Let's not go', and *gaci mal.ala* 'Don't go'.

It has been claimed that modal suffixes cannot be negated (G.H. Jang 1985:17; H.B. Lee1970), and the general idea of negation in Korean is confused by K.D. Lee (1993:313) when he notes that there are two negation markers in Korean, *an* and *mos*, and that these two markers appear in two different positions: the pre-verbal position and the post-verbal position.

His positional distinction of pre/post verbal position is vague because the possibility of occurrence of the post-verbal negator *-ci.anh-* is varied. It can appear both after a verb and before modal markers. In this regard, the present study suggests that negation has two different scopes in a simple sentence: propositional negation and modal negation. For example:

8a. John -i *anh* -ka -ss -ta
 John Subj not go Ten Fin
 '(I) assert that John did not go'

8b. John -i ka -ci -*anh* -ass -ta
 John Subj go Com not Ten Fin
 'It is not that John went' (I deny that John went)

In 8a, the negation marker *anh* modifies the predicator *ka* 'go'; in other words, the speaker's assurance about the fact is not negated, only the fact itself is negated. On the other hand, in 8b, it is the speaker's attitude that is negated.

This study does not intend to refute K.D. Lee's (1993: 313-337) claim about the general principles of negation, rather to further specify his claim on post-verbal negation. It is a universally accepted rule that there are two kinds of negation: main verb negation and modal negation. Thus, the three negative markers *-anh*, *mal-* and *mos-* can appear in two different positions: pre-verbal position for propositional negation, and pre-modal position for the modality negation. For example:

9. Nwun -i o -ci -*anh* -*ci*
 snow Subj come Com Neg Mod
 'It is not that it is snowing'

The two occurrences of *-ci* in 9 are homophonous: the former *-ci* is a complementizer analogous to 'that' in English; and the latter one is modal suffix expressing the speaker's epistemic sense of presumption and deontic sense of propositive. It is noticeable that in modal negation the negators *-ci.anh/-ci.mal-* are accompanied by complementizer (originally sentence finals) such as *-ci-*, *-ta*, *-ko-*, *-nye*, etc. In this case, the adverb *ma* is used for the imperative and propositive negations.

Among these negatives, the negative suffix *-anh* is also used in constructions that are not negations, but rather such modal expressions as the speaker's confirmation or doubt. For example:

10. Kekceng -ma, nay -ka is.ci -anh.ni?
 Worry Mod I Subj am Mod
 'Don't worry, I am here for sure'

In 10, *-anh.ni* does not have a meaning of negation, and the speaker is almost certain about the fact.

III.7. Tense and the KMS

G.H. Jang (1985) claims that the KMS are tense-free on the grounds that the tense markers *-n-* (present) and *-ess-* (past) do not follow modal suffixes as in the case of main verbs. The present study will acknowledge Jang's claim, but will further discuss the relations between tense and modal suffixes: 1) Tense, Presumptive modal suffixes and the phrasal modal suffixes; 2) Tense and the deontic/epistemic modality distinction, and 3) Tense and compound modal suffixes.

1) Tense markers cannot follow modal suffixes (G.H. Jang 1985). The following sentences are ungrammatical because they violate this constraint.

11a. * John -i ka -keyss -ess -ta
 John Subj go Mod Ten Fin
 '(I) guess John went'

11b. * John -un ka -te -ss -la
 John Top go Mod Ten Fin
 '*I recognise John will go'

In 11b the past tense marker *-ss* can follow the modal suffix *-te-* and a counter example is found in the following example where the past tense marker *-ess-* follows the modal suffix *-keyss-*.

11c. Ipwul hanche -lul saca -to sipiwen -un cwue -yaha -*keyss* -*ess* -ta
 duvet one Acc buy even 12 Won pay must Mod Ten Fin
 'I might have to pay at least 12 Won for even a piece of duvet'
 (*Sin of Love* by Lee Kwang swu)

In case of Presumptive modal suffix *-siph-* is exception. For example:

11d. John -i ka -ss -ta -*siph* -*ess* -ta
 John Subj go Ten Mod Pse Ten Fin
 '(I) guessed John went' (It seemed to me that John's gone)

The phrasal modal suffixes are also tense sensitive. For example:

11e. John -un ka -*n.moyang.i* -*ess* -ta
 John Top go Adnz BN Ten Fin
 'John seemed to go'

11f. John -un ka -*l.moyang.i* -*ess* -ta
 John Top go Adnz BN Ten Fin
 'John seemed to go'

In 11e and 11f, the phrasal modal suffix *-n/l.moyang.i-* is followed by the past tense marker *-ess.ten-* (see examples in 15a & 15b of III.8).

2) No deontic modal suffixes express temporal senses. If they co-occur with tense markers they have epistemic readings¹⁹. For example:

11g. *Na -nun ka -n/ l/ ss -*keyss* -ta
 I Top go Ten Mod Fin
 'I will go'

¹⁹ It is a well established grammatical rule in Korean that Declarative and Interrogative sentences are tense sensitive, but Imperative and Propositive sentences are tense free (this is confirmed by a personal discussion with C.K. Ha).

11h. John -i ka -ss -*keyss* -ta
 John Subj go Ten Mod Fin
 '(I) presume that John went'

11g is ungrammatical because the suffix *-keyss-* expressing the speaker's intention is preceded by one of the tense markers *-n-*, *-l-*, and *-ess-*. In 11h, the suffix *-keyss-* only expresses an epistemic sense because it is preceded by tense marker *-ss-*.

3) Despite these syntactic constraints, temporal senses are often expressed by 'compound modals' such as *-keyss.te-*, *-keyss.kwu-*, for example:

11i. John -i -ecey -ka -*keyss.te* -la
 John Subj yesterday go Mod Fin
 '(I) guessed that John was going yesterday'

11j. John -i cikum -ka -*keyss.kwu* -na
 John Subj now go Mod Fin
 '(I) guess that John is going now'

In 11i and 11j, compound modal suffixes are preceded by the temporal adverbs *cikum* 'now' and *ecey* 'yesterday'. In this case, they only express epistemic senses. However, *cikum* cannot co-occur with *-keyss.te-*, and *ecey* cannot co-occur with *-keyss.kwuna*. The peripheral temporal meanings of the suffixes *-te-* and *-kwuna* seem to be responsible for the cooccurrence discrepancy.

III.8. The Suffixation Rules of the KMS

Korean suffixation involves integrated grammatical categories, which includes modality, tense, aspect, and honorifics. These grammatical categories are so closely linked or formed that they cannot be considered as independent systems.

Palmer (1976/1990:203) assumes that sequences of an auxiliary and a main verb are 'forms' of the verb. Thus, *would have been taking* is treated as a form of TAKE, just as the Latin *amavisset* is a form of AMO. The point being made is that there is a relatively

strict order for auxiliaries.

Regarding this assumption as a language universal, it can be supposed that Korean also has strict and rich word-formation patterns, and that such forms can also be manifested in word-internal structure. As was mentioned in introductory section of this chapter, the Korean language has an SOV order, in which the verb has an agglutinative nature²⁰ that manifests itself in the suffixes terminating the sentence. Thus, Korean verb suffixes are complex both in the structure and in how they are used, namely, an extremely large number of grammatical phenomena, including the sentence type, speech level, tense, aspect, voice, conjunction, modality as well as various semantic connotations, are expressed through verb suffixes.

They can be subdivided into a number of subclasses. First, by their distributional position, they are divided into pre-sentence finals and sentence-finals. Sentence finals terminate the verb as well as the sentence, because verbs are the last element of sentence in Korean. Pre-sentence final suffixes combine with following sentence-final suffixes, in other words, they are inflectional elements that come between the verb stem and the sentence-final suffixes (Lee & Ramsey (2000: 173).

S.J. Chang (1996:40) rightly posits that the Korean verb is composed of a stem, simple or expanded, and a sequence of inflectional suffixes, and suggests seven sequential positions (1)-(7).²¹

	1	2	3	4	5	6	7
	Status	Tense	Tense	Tense	Mood	Mood	Sentence Modulator
Stem	Hon -si	Pr -n	Pst -ess	Pst -ess	Vol -keyss	Ret -te	S-final -la

Table 3. Sequential positions of verb inflections (according to Chang 1996:40)

²⁰ It needs to be recalled here that Korean is an agglutinative language with a number of suffixes that serve for modulations of meaning when appended to nouns and verbs. The verb is made of an invariant root followed by a string of suffixes, the suffixes agglutinate to a verbal stem one after another in a **fixed order**, each functioning as a marker of honorifics, aspect, tense and modality. However, Fillmore (1968: 1) assumes that the universal base specifies the needed syntactic relations, but the assignment of **sequential order** to the constituents of base structure is language specific.

²¹ Martin (1992) assigns four of the seven **inflectional slots** to tense and aspect, as follows: I-Status, II past tense (-ess); III- past tense; IVa -future tense (-keyss); IVb-Prospective aspect (-ul) and VI-Indicative, Subjunctive, Retrospective, and Processive aspects, VII-Mood.

where the abbreviations are : Hon=Honorific; Pr =present tense
Pst=past tense; Vol=volitional mood; Ret = retrospective mood

Here, Chang (1996) and Martin (1992) assign seven sequential positions: one status, three tenses, two moods and one sentence modulator place. However, this study is not happy about their terminology, and raises questions about the acceptability of their suggestions: 1) why are places for voice, aspect, speaker honorification and modal suffixes missing in the sequential positions, and 2) why are the same terms used for different positions, i.e. tense for place 2, place 3, and place 4; and mood for place 5 and place 6?

This study presumes that if there exist morphologically distinctive classes, there should be places of occurrence for the respective classes which give automatic clues for their identification, and proposes further places for such distinctive suffixes as the three kinds of honorific suffixes (see III.2), for post sentence final suffixes and most importantly for further specified modal suffixes.

This research provisionally presents a plausible series of ten sequential positions:

John	-i	cap	-hi	-si	-ess	-ess	-keyss	-pni	-ta	-lako	-hay	-yo
	Stem	Pas	Hon	Asp	Ten	Mod	Hon	Fin	Com	Mod	Mod	
		1	2	3	4	5	6	7	8	9	10	
		o	o	o	o	o	o	o	o	o	o	o

Table 4. Sequential positions of verb inflections suggested in this study

Here, all the positions are optional except the sentence-finals, which are phrase-finals or clause-finals including sentence finals. Suffix places have been broadly categorized into three groups according to their positions: Pre-final (place 1 - place 6); Final (place 7); Complementizer (Place 8); and Post-final (place 9). From place 9 onwards the suffixation can recur preceded by the complementizer *-ko-* and *-ci-* analogous to the English sentence 'It is said that X said that X.', etc. Place 1 is for passive/ causative and is allotted to both the causative and the passive because they are in complementary

distribution. Places for modal suffixes are 5, 7, 9 and 10.²²

The following sections present and describe the sequential positions for the suffixes with some explanations where they are required. Morphosyntactic constraints are shown by 'x', which indicates the non-occurrence of a suffix; optional occurrences are indicated by '?' and obligatory occurrences are indicated by 'o'.

There exists morphosyntactic behaviour in Korean whereby the pre-final suffixes intervene between verb stem and the final suffixes which have a sentence terminating function. On this basis we arrive at the following suffixation patterns by which we can predict the possibilities of occurrence of suffixes.

III.8.1. Suffixation Place 1

This bold-typed slot is for the passive /causative suffixes.

No suffix can intervene between a verb stem and the final suffixes except in the case of the above-mentioned suffixes²³. An example sentence is displayed in Table 5:

John	-i	cap	-hi	-si	-ess	-ess	-keyss	-pni	-ta	-lako	-hay	-yo
		Stem	Pas	Hon	Asp	Ten	Mod	Hon	Fin	Com	Mod	Mod
			1	2	3	4	5	6	7	8	9	10
			o	?	?	?	?	?	o	?	?	?

Table 5. Sequential position 1

Table 5 shows that if place 1 is occupied, place 7 is obligatorily occupied and places 2-6, 8-10 are optional.

Passive suffixes are: *-i*, i.e. *po-i* 'be visible'; *ssa-i* 'be piled', *-hi*, i.e. *mek-hi* 'be eaten' *-li*, i.e. *mwul-li* 'be bitten'; *cap-hi* 'be caught', *-ki* i.e. *cam-ki*

²² Although previous studies categorize *-supnita* as one suffix (sentence final), this study divides it into *-supni* (Honorific suffix) and *-ta* (final suffix) because they have distinctive distributional features: *-nai.ta*; *-aopni.ta*; *-ni.te*; *-sim.te* (Southern dialect); *-sup.ma'y* (Northern dialect); The passive/causative suffixes are said to be part of verb-stem by many. However, this study categorizes them as non-modal 'suffixes' on the grounds that they optionally occur in *automatic* suffixation.

²³ All the positions are optional except for the last one which is the word-final or the clause-final position including the sentence final (Chang 1996:40).

'be drowned'.

Causative suffixes are: *-i*, i.e. *meyk-i* 'feed'; *po-i* 'show'; '*-li*', i.e. *al-li* 'inform'.

III.8.2. Suffixation Place 2

The subject honorific suffix *-si/sey* occupies this place.

Subject honorification²⁴ is expressed by the bold typed suffix *-si/sey* and its morphosyntactic distribution is shown in the following table:

John	-i	cap	-hi	-si	-ess	-ess	-keyss	-pni	-ta	-lako	-hay	-yo
		Stem	Pas	Hon	Asp	Ten	Mod	Hon	Fin	Com	Mod	Mod
			1	2	3	4	5	6	7	8	9	10
			?	o	?	?	?	?	o	?	?	?

Table 6. Sequential position 2

Table 6 shows that if place 2 is occupied, place 7 is obligatorily occupied and places 3-6, 8-10 are optional. For example:

12. John -i -ka -**si** -n -ta
 John Subj go Hon Tense Fin
 'John goes'

In 12, The honorific suffix *-si* occupies Place 2, expressing respect to the subject John. If place 2 is occupied by *-si /sey-*, the first person pronoun *na* is not likely to appear because 'speaker lowering' is obligatory and the honorification of the speaker is

²⁴ The speaker-hearer interplay and their relation with the subject (and object) referent are grammaticalized in Korean. This is generally known as Honorification. It is viewed as consisting of three sub-systems: (1) speech (or discourse) levels, based on the interplay between the speaker and the hearer, (2) subject honorification, based on the interplay between the speaker and the subject referent, and (3) object honorification, based on the interplay between the speaker and the indirect-object referent. The speech level is structurally manifested in the form of sentence finals and the subject honorification in the honorific suffix '*-si*' and certain lexical items. Object honorification is marginal in that it is formed by only a handful of lexical items. Honorification is an integral part of Korean grammar, imbued in the cognitive system of the language users. It is simply impossible to think of Korean discourse free from the system of honorification (S.J. Chang 1996:190).

conventionalised as a taboo in Korean.

III.8.3. Suffixation Place 3

Aspectual suffixes such as *-ess* and *-ko.iss* (progressive) and *pe.li* (perfect) occupy this place. Aspect and tense are so closely related that their distinction is often felt to be little more than a terminological convenience (S.J.Chang 1996:118) as the shared form *-ess-* is historically affiliated to both.

John	-i	cap	-hi	-si	-ess	-ess	-keyss	-pni	-ta	-lako	-hay	-yo
		Stem	Pas	Hon	Asp	Ten	Mod	Hon	Fin	Com	Mod	Mod
			1	2	3	4	5	6	7	8	9	10
			?	?	o	?	?	?	o	?	?	?

Table 7. Sequential position 3

Table 7 shows that if place 3 is occupied, then place 7 is obligatorily occupied, and places 1~2, 4~6, 8~9 and 10 are optional. The progressive aspect *-ko.iss-* denotes incomplete action, while the perfective aspect *-ess-* denotes completed action. Thus, such co-occurrence test words as *-e.pe.li.ta* 'finished' and *-ki.sicak.ha.ta* 'to start' are useful when the meanings are ambiguous and the English aspect markers 'have', '-ing' are used for their glosses. The formally identical suffix *-ess-* occurs both in Place 3 and 4 expressing aspectual and temporal meanings, respectively. In this case, both aspectual and temporal readings are possible.

13a. John -un ka -ss -ta
 John Top go Asp(completion) Fin
 'John has gone'

In this case the insertion of the perfective *-pe.li-* 'complete' will disambiguate the suffix *-ess-*.

13b. John -un ka -*pe.li.ess* -ta
 John Top go Asp(completion) Fin
 'John has gone'

Another method of disambiguation is to specify the stem class. If stems are intransitive verbs (e.g. *anta* 'sit', *seta* 'stand', *nwupta* 'lie' or passive verbs *alliecita* 'be known', *cwuecita* 'be given', they retain readings of both the temporal meaning of <V-*ess*-> and the aspectual meaning of <V- *e.iss*->²⁵.

On the other hand, The imperfective Korean aspect is usually realized by compound verbs such as *-ko.iss-* (Progressive); *-ki.sicak-* (Inchoative); *-kon.ha-* (Habitual); *-hay.tay-* (Iterative).

III.8.4. Suffixation Place 4

Place 4 is occupied by the temporal suffixes *-ess-* and *-(nu)n-*. Its morphosyntactic constraints are shown in the following table:

John	-i	cap	-hi	-si	-ess	-ess	-keyss	-pni	-ta	-lako	-hay	-yo
		Stem	Pas	Hon	Asp	Ten	Mod	Hon	Fin	Com	Mod	Mod
			1	2	3	4	5	6	7	8	9	10
			?	?	?	o	?	?	o	?	?	?

Table 8. Sequential position 4

Table 8 shows that if place 4 is occupied, then places 1~3, and 5~10 are optional, while place 7 is obligatory. The past tense suffix *-ess-* and the present tense suffix *-(nu)n-* occupy this place (the present study posits a past/non-past tense distinction).

²⁵ *-iss-* is sometimes used as an auxiliary verb preceded by *-a/e* (*-a.iss/e.iss-*) expressing aspectual meaning of continuation, e.g. *kkoch i phi e.iss ta* 'Lilies are in full bloom(without wither away)'; *congalsay ka hanul nophi sos a.iss ta* 'A skylark soars high to the sky (and stays there).'

14a. Na -nun kuttey haksayng.i -ess -ta
 I Top then student Ten Fin
 'I was a student then'

14b. John -un ecey ka -ss -ta
 John Top yesterday go Ten Fin
 'John went yesterday'

In 14a and 14b, the suffix *-ess-* denotes past tense co-occurring with the adverb *kuttey* 'then' and *ecey* 'yesterday'. However, it can have two functions, Temporal and Aspectual, and it occurs consecutively in Places 3 and 4, for example:

14c. John -un ka -ess -ess -ta
 John Top go Aspect Tense Fin
 'John had gone'

In 14c, the suffix *-(e)ss-* appears twice in the same sentence, exhibiting two grammatical functions, aspectual and temporal. It is noted that the identical form *-(e)ss-* expresses both aspectual and temporal meanings by occupying two different places 3 and 4, which leads to ambiguity. For the differentiation of *-(e)ss-* in place 3 from that of place 4, we need to replace more obvious aspectual suffixes with *-(e)ss-*, e.g. *-ko.iss* (progressive) + *-ess*; *-peli-* (perfect) + *-ess* where we can recognize that the former place of aspect can only be replaced by those alternatives, for example:

14d. John -un ka -ko.iss -ess -ta
 John Top go Asp Ten Fin
 'John was going'

14e. John -un ka -peli.ess -ta
 John Top go Asp Fin
 'John has gone'

In 14d & 14e, both progressive and perfect aspectual suffixes *-ko.iss-* and *-peli.ess-* can be substituted with *-(e)ss-*. Thus, it can be clarified that the formally identical suffix *-ess-* functions differently according to the sequential places.

On the other hand, the occurrence of the *-(e)ss-* + *-(e)ss-* sequence determines the choice of deontic/ epistemic use of modality (see description of place in the following section). For example:

14f. Na -nun ka *-lke* -ta
 I Top go Mod Fin
 'I will go'

14g. Na -nun ka *-keyss* -ta
 I Top go Mod Fin
 'I will go'

The suffixes *-keyss-* and *-lke-* in 14f & 14g express the speaker's intention, a deontic modal meaning, if they are not preceded by '*-ess-* + *-ess-*'. However, if this sequence precedes the modal suffix, then the modal suffix exclusively exhibits a meaning of epistemic modality. For example:

14h. Na -nun ka *-ess* *-ess* *-keyss* -ta
 I Top go Asp Ten Mod. Fin
 'I presume that I had gone'

In 14h, the modal suffix *-keyss-* expresses only the epistemic sense of resumption.

The suffix *-keyss-*, which has arguably been classified as future tense marker, does not occupy place 4 but place 5. Hence, it can be categorized as a modal suffix.

For example:

14i. ?John -un ka -ss *-keyss* *-ess* -ta
 John Top go Asp Mod Ten Fin
 'I presume that John had gone'

In 14i, the place of *-keyss-* is awkward because it precedes the temporal suffix *-(e)ss-*.

III.8.5. Suffixation Place 5

Place 5 is assigned to modal suffixes. This modal place can be sub-categorized into three places: 5-1 for *-keyss-*; 5-2 for *-te* and 5-3 for the phrasal modal suffixes, e.g. *-l/n.seym.i-*, *-l/n.moyang.i-*, etc. The following table shows the place for the initial modal suffix *-keyss-*.

	cap	-hi	-si	-ess	-ess	.keyss	-te	.l/nsyem	-pni	-ta	-lako	-hay	-yo
	Stem	Voi	Hon	Asp	Ten	Mod	Mod	Mod	Hon	Fin	Com	Mod	Mod
		1	2	3	4	5-1	5-2	5-3	6	7	8	9	10
ep		?	?	?	?	o	?	?	?	o	?	?	?
de		o	x	?	x	o	x	x	?	o	?	?	?
	cap	-hie		pele		-keyss			-pni	-ta			-yo

Table 9. Sequential position 5-1

Table 9 shows that if place 5-1 is exclusively occupied by the suffix *-keyss-*, it expresses epistemic senses. While place 7 is obligatorily occupied, and 1~4, 5-2, 5-3 and 6~10 are optional. On the other hand, when the suffix *-keyss-* expresses deontic senses, Honorific place 2 and Temporal place 4, 5-2 and 5-3 cannot be occupied, and 7 is obligatory, and places 1, 3, 6, 8, 9 and 10 are optional. The suffix *-keyss-* occupies the initial place among modal places, and it always initiates 'Serial modal suffixes' (Compound suffixes): *-keyss.kwu.na*, *-keyss.te.kwu.na*, and *-keyss.te.kwun.yo*, etc.

Place 5-2 is occupied by the suffix *-te-*, and its morphosyntactic environment is shown by the following table:

cap	-hi	-si	-ess	-ess	.keyss	-te	.l/nsyem	-pni	-ta	-lako	-hay	-yo
Stem	Voi	Hon	Asp	Ten	Mod	Mod	Mod	Hon	Fin	Com	Mod	Mod
	1	2	3	4	5-1	5-2	5-3	6	7	8	9	10
ep	?	?	?	?	?	0	?	?	o	?	?	?

Table 10. Sequential position 5-2

Table 10 shows that if place 5-2 is occupied by the suffix *-te-*, then place 7 is obligatorily occupied, and places 1~4, 5-1, 5-3, 6 and 8~10 are optionally occupied for the epistemic senses. The suffix *-te-* normally does not express deontic senses because deontic modality is tense sensitive.²⁶

Place 5-3 is occupied by the phrasal modal suffixes *-l/n.seym.i-*

cap	-hi	-si	-ess	-ess	.keyss	-te	.l/nsyem	-pni	-ta	-lako	-hay	-yo
Stem	Voi	Hon	Asp	Ten	Mod	Mod	Mod	Hon	Fin	Com	Mod	Mod
	1	2	3	4	5-1	5-2	5-3	6	7	8	9	10
ep	?	?	?	?	?	?	o	?	o	?	?	?
de	o	x	?	x	x	x	o	?	o	x	x	?
cap	.hie		.peli				.lseymi	-pni	-ta			-yo

Table 11. Sequential position 5-3

We divide the phrasal modals *-l/n.seym.i-* into 1) *-l.seym.i-* expressing deontic senses, 2) *-n.seymi-* expressing epistemic senses according to *-l-* and *-n-* the initial particles of the phrase. Table 11 shows that if place 5-3 is occupied by phrasal suffixes, then place 7 is obligatorily occupied, and places 1~4, 5-1, 5-2, 6 and 8~10 are optionally occupied for the epistemic senses. On the other hand, when they express deontic senses, place 7 is obligatorily occupied, places 1, 3, 6 and 10 are optional and places 2, 4, 5-1, 5-2, 8 and 9 cannot be occupied. For example:

²⁶ This phenomenon implies that the modal suffix *-te-* has a temporal meaning as a peripheral sense.

15a. Na -nun ka -*l.moyang.i* -pni -ta.yo
 I Top go Mod Hon Fin
 'I intend to go'

15b. John -un ka -*n.moyang.i* -pni -ta.yo
 John Top go Mod Hon Fin
 'John seems to go' (It seems that John has gone)

In 15a and 15b, for the deontic meaning the suffix *-l-* is initiated, and for the epistemic meaning *-n-* is initiated. These constraints are also applied to other phrasal modal suffixes. For example:

16a. Na -nun ka -*l.sem.i* -ta
 I Top go Mod Fin
 'I intend to go'

16b. Ta kapuhu-*n.sem.i* -ta
 all paid Mod Fin
 'All seem to have been paid'

Other phrasal modal suffixes occupying this slot are: *-l/n.the.i-*, *-l/n.pok.i-*, *-l/n.kes.i-*, *-l/n.tus.ha-*, *-l/n.swu.iss-*, etc.

In conjunction with the sequential positions of suffixation, it is important to notice that the KMS normally express dual senses, namely, deontic and epistemic senses (for detailed discussion see Chapter IV.1, 2 & 3), and they choose different places for different senses. These morphological constraints suggest a distinct morphosyntactic environment for the two sub-categories in the KMS. For example:

16c. Na -nun ka -*lthey* -ta
 I Top go Mod Fin
 'I will go'

In 16c, when the suffix *-lthey-* occurs with no preceding suffixes, it expresses the speaker's intention, a deontic sense. However, when *-lthey-* is preceded by any suffixes, it expresses the epistemic sense of conjecture. See the following example:

16d. John -un ka -si -ess -ess -lthey -ta
 John Top go Hon Asp Ten Mod Fin
 'John might have gone'

In 16d, the suffix *-lthey-* expresses an epistemic sense of conjecture by occupying the modal place 5-3 preceded by other suffixes.

For the Deontic/Epistemic differentiation, the *-ess-* + *-ess-* test is useful: if a suffix is preceded by the temporal suffix *-ess-*, it expresses epistemic sense, and if it is not, it expresses a deontic sense. Adverbial *com* 'please' cooccurs with deontic senses and *ama* 'perhaps' with epistemic senses.

III.8.6. Suffixation Place 6

Place 6 is occupied by the speaker lowering suffixes²⁷ *-(su/ao/o) pni-*, *-sipsi-*, *-opsose* (archaic). The underlying principle of honorification is self-lowering. The speaker should always lower him/herself (see III.2. for the explanation of Honorifics in Korean). The following table shows its morphosyntactic environment.

	cap	-hi	-si	-ess	-ess	.keyss	-te	.l/nsyem	-pni	-ta	-lako	-hay	-yo
	Stem	Voi	Hon	Asp	Ten	Mod	Mod	Mod	Hon	Fin	Com	Mod	Mod
		1	2	3	4	5-1	5-2	5-3	6	7	8	9	10
ep		?	?	?	?	?	?	?	o	o	?	?	?
de		o	x	?	x	x	x	o	?	o	x	x	?
	cap	.hie		.peli				.lseyymi	-pni	-ta			-yo

Table 12. Sequential position 6

²⁷ Confer to note of III.8.2. for the concept.

Table 12 shows that if place 6 is occupied by the humble suffix, place 7 is obligatorily occupied, and places 1~4, 5-1~5-3 and 8~10 are optionally occupied for the epistemic senses. On the other hand, if the *-l.seym.i-* expresses deontic senses, places 1, 3, 7 and 10 are occupied and the rest places are obligatorily empty.

III.8.7. Suffixation Place 7

Place 7 is obligatorily occupied by the sentence final suffixes, and its syntactic environment is shown in the following table.

	cap	-hi	-si	-ess	-ess	.keyss	-te	.l/nsyem	-pni	-ta	-lako	-hay	-yo
	Stem	Voi	Hon	Asp	Ten	Mod	Mod	Mod	Hon	Fin	Com	Mod	Mod
		1	2	3	4	5-1	5-2	5-3	6	7	8	9	10
ep		?	?	?	?	?	?	?	o	o	?	?	?
de		o	x	?	x	x	x	o	?	o	x	x	?
	cap	.hie		pe	li			.l.seym.i	-pni	-ta			-yo

Table 13. Sequential position 7

Suffixes plausible to occur in this slot are: 1) final suffixes expressing epistemic sense such as *-ta*, *-la*, *-ka*, *-kwu.na*, *-ci*, *-ney*, *-na*, *-o*, and *-a*; 2) final suffixes expressing exclusively deontic senses such as *-ma*, *so*, *-lkkey*, *-sey* and *-ca*. The sentence final honorific suffix *-yo-* is added to the sentence final suffixes for the upgraded speech levels in place 10.

III.8.8. Suffixation Place 8

Place 8 is occupied by the sentence complementizer *-ko/lako-* and its syntactic environment is shown in the following table:

cap	-hi	-si	-ess	-ess	.keyss	-te	.l/nsyem	-pni	-ta	-ko	-hay	-yo
Stem	Voi	Hon	Asp	Ten	Mod	Mod	Mod	Hon	Fin	Com	Mod	Mod
	1	2	3	4	5-1	5-2	5-3	6	7	8	9	10
ep	?	?	?	?	?	?	?	?	o	o	o	?
de	o	x	o	x	?	x	o	?	o	?	x	?
cap	-hie		.peli				.lseyemi	-pni	-ta			-yo

Table 14. Sequential position 8

The suffix *-kollako-* is often replaced by the sentence final suffixes. For example:

17a. Ka -ko -siph -ta
 go Com Mod Fin
 'I intend to go'

17b. John -i ka -ci -siph -ta
 John Subj go Com Mod Fin
 'It seems that John goes'

17c. John -i ka -na -po -ta
 John Subj go Com Mod Fin
 'It seems that John goes'

17d. Na -nun ka -ko -siph -ta
 I Top go Com Mod Fin
 'I intend to go'

17a and 17d express the same meaning, except 17a deletes *na* (the speaker *I*). In 17b and 17c, the complementizer *-ko-* is replaced by sentence finals.

III.8.9. Suffixation Place 9

Place 9 is occupied by Post sentence final suffixes such as *-siph-*, *-po-* and *-ha(y)* that express both deontic and epistemic modality. S.J. Chang (1996:48) calls them ‘auxiliary adjectives’ forming adjective phrases with a preceding main verb (or adjective) connected by *-ko-*, *-ci-*, *-na-*. However, this study categorizes them as modal suffixes on the grounds that they predicate embedded sentence (For the morphosyntactic characteristics of them confer III.3. and the previous section III.8.8.).

Their morphosyntactic environment is shown in Table 15.

	cap	-hi	-si	-ess	-ess	.keyss	-te	.l/nsyem	-pni	-ta	-ko	-hay	-yo
	Stem	Voi	Hon	Asp	Ten	Mod	Mod	Mod	Hon	Fin	Com	Mod	Mod
		1	2	3	4	5-1	5-2	5-3	6	7	8	9	10
ep		?	?	?	?	?	?	?	?	o	o	o	?
de		o	x	o	x	?	x	o	?	o	x	x	?
	cap	-hie		.peli				.lseyimi	-pni	-ta			-yo

Table 15. Sequential position 9

The sequence of post final modal suffixes *-ta- ko -hay* and *-la- ko- hay* have contracted forms *-tay* and *-lay* ‘it is saidthat . . .’

III.8.10. Suffixation Place 10

Place 10 is occupied by the Sentence final suffix *-yo*. It is categorized as an honorific marker which usually occurs after the intimate-level suffix *-e-* (its variants are *-a-* and zero) but can also occur after any major break in discourse. Its morphosyntactic environment is shown in the following table:

cap	-hi	-si	-ess	-ess	.keyss	-te	.l/nsyem	-pni	-ta	-ko	-hay	-yo
Stem	Voi	Hon	Asp	Ten	Mod	Mod	Mod	Hon	Fin	Com	Mod	Mod
	1	2	3	4	5-1	5-2	5-3	6	7	8	9	10
ep	?	?	?	?	?	?	?	?	o	o	o	o
de	o	x	o	x	?	x	o	?	o	x	x	o
cap	-hie		.peli				.lseyemi	-pni	-ta			-yo

Table 16. Sequential position 10

The sentence-final suffix *-yo-* expresses the strong assertiveness of the speaker and politeness at the same time. For example:

18. Changmwun -i yelye -iss -ney -yo
 Window Subj open Asp Mod Fin
 'The window is open, isn't it.?'

The suffix *-yo-* is considered to be polysemous in that it denotes the polite Declarative; the polite Imperative; and the polite Propositive senses (cf.III.2).

III.9. Summary of Chapter III

Some typological characteristics of the KMS can be summarized as follows:

1) The occurrence of sentence final markers is obligatory, and they express modality and honorifics, while that of other suffixes (e.g. tense and aspect) is optional. So it can be generalized that Korean sentences always end with modal suffixes. Sentences without modality do not exist even though sentences without tense or aspect do.

2) Morphemes indicating the speaker's opinion function as transitive verbs in a matrix sentence and predicate the embedded sentence. This phenomenon is best shown by the post sentence final modal suffixes which have been developed from the original transitive verbs. Accordingly, the existence of the speaker in matrix sentences can be taken for granted and it can be justified when humble honorific suffixes appear co-

referentially with the subject.

3) Negation has two different scopes in the KMS: propositional and modal negation.

4) Tense behaves in conjunction with modality in two ways: i) tense markers cannot follow the modal suffixes. ii) If modal suffixes co-occur with tense markers they have epistemic readings (no deontic modal suffixes express temporal senses).

5) It is possible for two or more modal suffixes to appear in a single compound suffix, and the compound suffix forms sequences without intervention by any overt markers of coordination, subordination or any intensifiers.

6) The KMS have a strictly fixed suffixation order and the respective positions provide clues about syntactic function; they differentiate deontic/epistemic, aspect/tense, and speaker honorific/hearer honorific oppositions.

7) The KMS are multifunctional: pre-final suffixes are trifunctional - tense, aspect and modality, and the final suffixes are bifunctional - honorifics and modality.

Chapter IV. A Semantic Account of the Korean Modal Suffixes

IV.0. Introduction

This chapter is concerned with the semantic features of the KMS. A number of semantic parameters of the system will be accounted for, and definitions of sub-categories and formulations will be proposed on a conceptual basis. I adopt Palmer's (1986) practice of giving a capital initial letter to the names of notional categories and properties. Co-occurrence restrictions will be invoked all through the chapter for the justification of the analysis.

For the presentation, this chapter starts with the general concept and property of the polysemy of modality, followed by a detailed account of the polysemy of the KMS. Then the inter-categorical system – involving polysemy in the cross categories of tense, aspect and modality - is illustrated by some relevant modal suffixes such as *-(nu)n-*, *-ess-*, *-keyss-* and *-te-*.

The relationship between deontic and epistemic modality will be explained with semantic grounds for distinguishing these two categories, and the rise and development of phrasal and verbal modal suffixes are presented. This chapter also schematically categorises the subsystems of the KMS. Finally the whole chapter will be summarized.

IV.1.0. Polysemy of Modality in General

This section is dedicated to the description of the polysemous character of modality in general and to the establishment of the principle which governs the expansion of meanings, the cause and nature of semantic change.

Palmer (1990:100) postulates that if the differences in the meanings of a word are regular and to some degree predictable, we have *polysemy* rather than *homonymy*. Norving and Lakoff (1987:197ff) in their discussion of semantic assimilation argued that the link between the two senses involves minimal variation and a simple difference. When we say that sense A is a minimal variation of sense B, we mean that even though A and B may differ in many ways, all their differences boil down to a single difference

and can be predicted.²⁸

Modals are believed to exhibit rich polysemy, so that while their older senses involve obligation or the speaker's preference, they have all developed a probability sense, that is, the speaker's assignment of the likelihood of the proposition. One of the most familiar kinds of relationship between meanings is 'inference' where a word brings about some peripheral meanings; another one is 'metaphor' where a word appears to have both a 'literal' meaning and one or more 'transferred' meanings.

In this study I accept that the two mechanisms are more flexible in the characterisation of the meanings of linguistic categories following Comrie's (1985:18) comment that the more flexible approach provides a more accurate characterisation of the linguistic system. This phenomenon can be explained in terms of a compromise between the two approaches (cf Bennett 1990; Taylor 1995, chap. 14). See IV.1.2.3. for further discussion.

IV.1.1. Polysemy in the KMS

As stated previously the KMS fall into two major categories: Deontic and Epistemic modalities. The former category includes all aspects of volition whether of a forceful or merely suggestive nature; the latter conveys the speaker's opinion about the proposition under discussion.

In Korean, to a far greater extent than in English, this is further complicated by honorific suffixes which are a part of modality. Although they are to a large extent laid down by Korean social convention there are subtle distinctions within this system, as indeed is the case in other languages.

The Korean language also shares with other languages the diversity of meanings contained within one form which can be loaded with layers of peripherals according to the situation. For example, the suffix *-te-* has a basic meaning of 'certainty', which

²⁸ Ravin & Leacock (2000:1-10) review three major approaches to polysemy : 1) the classical approach -- senses are represented as set of necessary and sufficient conditions; there are as many distinct senses for a word as there are differences in these conditions; senses can be represented independently of the context. 2) the prototypical approach -- demonstrating that people do not categorize objects on the basis of necessary and sufficient conditions but on the basis of resemblance of the objects to a prototypical member of the category. The meaning extensions are motivated by two general principles: metaphor and metonymy. 3) Computational approach -- tries to solve the mapping problem by simulating human understanding using statistical procedures to capture patterns of co-occurrences of words in context.

postulates several peripheral meanings, i.e. 1) retrospective meaning of past time; 2) temporal meaning of past time; 3) aspectual meaning of the progressive; 4) aspectual meaning of imperfective; 5) the modal meaning of certainty; 6) emotive meaning of surprise; 7) sudden realization; 8) honorific meaning of plain level; 9) hearsay, etc. A better illustration is given by the following examples and the subsequent Figure 3 showing a proto-componential model of the suffix *-te-*:

1a. Tal -i palk -te -la
 moon Subj bright Mod Fin
 'I recall that the moon was bright'

1b. Pi -ka o -te -la
 rain Subj come Mod Fin
 'It was raining'

1c. Photo -ka matiss -te -la
 grape Subj delicious Mod Fin
 'The grape was certainly delicious'

1d. Pi -ka wa -ss -ta -te -la
 rain Subj came Ten Fin Mod Fin
 'It is said that it rained'

1e. John -i coh -te -la
 John Subj nice Mod Fin
 'I assert that John is nice'

In 1a, the meaning of retrospective sense expressed by the suffix *-te-* is 'inferentially' related to senses of past time, and certainty from the direct experience of the speaker. In 1b, the retrospective meaning is added to by the sense of continuity which denotes that it was still raining at the time the speaker experienced it. In 1c, a sense of certainty is inferentially derived from the sense of the past experience because we always feel sure

and confident about something we have already experienced in the past. In 1d, *-te* is reduced from *-ha + te-* and a quotative sense has been metaphorically derived from the sense of remoteness or non-directness. In 1e, the speaker states firmly and forcefully what he means, which is inferentially supported by past experience and he sometimes tends to insist in a forceful way that people pay attention to him.

A network of the meanings of the suffix *-te-* can be illustrated in the following diagram using Langacker's (1978) model of meaning expansion. Viewed as such, it is assumed that the process is driven by both inferential and metaphoric devices in which some 'associations' based on the semantic similarity between the old meaning and the new meaning may be regarded as a necessary condition. And such variation seems to be the rule rather than the exception.

The suffix '*-te*' expresses the following meanings:

- 1) An epistemic modal meaning of certainty is inferentially derived from a past experience which is familiar compared with the uncertain world of the future.
- 2) A temporal sense of the past time is metaphorically derived from the past event.
- 3) An aspectual meaning of the progressive is metaphorically derived from the vivid memory of physical experience.
- 4) A modal meaning of exclamation is metaphorically accompanied by a vivid memory of the past.

The instances above highlight the proposition that polysemy comes from inferential or metaphorical relations; the former is a relation of logic (cause and effect), and the latter is that of imagination. The following model is an amended structure of the meaning expansion originally presented by Langacker (1978) in Taylor (1995: 287).

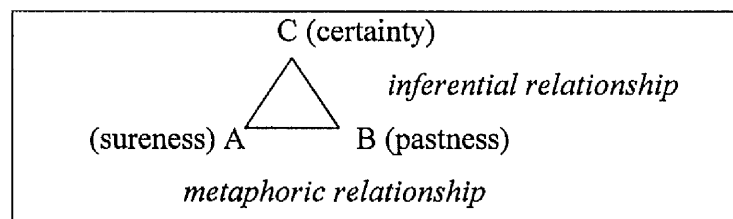


Fig. 3. The network structure of polysemy of the suffix *-te-*

According to the model, the established senses of a word constitute the nodes of a possibly complex and extended network. These senses are linked, horizontally by relations of similarity (metaphor), and vertically by the relation of a schema and its instantiations (inference). The nuclear structure of the network is depicted in Fig.3. Sense B is an extension of sense A, namely, B is perceived to be 'similar', thus metaphorical, in some respect to A; sense C is schematic for both A and B, that is, it captures, at a level which 'abstracts' away from the specific differences between A and B, the commonality between them, thus it is inferential.

On the other hand, the basic (core/general) meanings of modal suffixes can be postulated by componential analysis.²⁹

We can identify two distinct uses of the suffix *-keyss-*.

2a. Ohwu -ey pi -ka o -*keyss* -ta
 afternoon in rain Subj come Ten Fin
 'It will rain in the afternoon'

2b. Na -to ka -*keyss* -ta
 I too go Mod(Int) Fin
 'I too intend to go'

2c. Kulssi -lul po -ni ku salam -i -*keyss* -ta
 handwriting Acc look as that person Pre Mod Fin
 'The handwriting hints that it is that person'

2d. Ku mwunce -lul phwul -*keyss* -nya
 the problem Acc solve Mod Fin
 'Can you solve the problem ?'

²⁹ An appropriate way of reduction of senses is shown in Bennett (1975:7-9).

2e. Wusuwe cuk *-keyss* -ne
 funny die Mod Fin
 'I am dying out from laughter'

A componential analysis of the meaning of the modal suffix *-keyss-* will be presented in search of the basic (core) generator of neutral meanings of the KMS:

- the speaker's conjecture + futurity in sentence a.
- the speaker's intention + decisiveness in sentence b.
- the speaker's conjecture + evidential in sentence c.
- the speaker's conjecture + ability in sentence d.
- the speaker's conjecture + assertion in sentence e.

According to the full specification, the suffix *-keyss-* expresses: 1) future tense in sentence 2a; 2) the speaker's intention in sentence 2b; 3) the speaker's conjecture based on the evidence in sentence 2c; and 4) ability in sentence 2d an assertion in 2e respectively. However, we need to reduce the amount of polysemy by eliminating cases of vagueness. In 2a-e), the suffix *-keyss-* expresses future tense, modal senses of conjecture, promissive, and assertion depending on its contexts.

We note in the above table that components such as futurity, decisiveness, evidential and ability are also supplied by other lexemes in the environment of *-keyss-*. So we prefer to say that *-keyss-* itself is 'neutral' rather than to say that it conveys the meanings of futurity, decisiveness, and ability, and we postulate a general meaning of *-keyss-* as the speaker's 'conjecture' and 'intention'.

IV.1.2. The TAM phenomenon - polysemy across the categories of tense, aspect, and modality

Palmer (1986:208) points out that there are several ways in which modality is realised in other categories. First, a single formal system may contain some members that are clearly modal in their meaning, but also others that seems to belong to different typological-grammatical categories.

Lyons (1977:809-23) has a whole section entitled 'Tense as a modality' where he notes that tense could be separated from the proposition and treated as a qualification to which an original proposition is subjected, such a qualification being said to represent a modality.

It is cross-linguistically understood that a given grammatical item may have more than one meaning (i.e. 'will' in English might have both temporal and modal meanings), that a grammatical category may have a basic meaning and a number of peripheral meanings or uses, and that the basic meaning of a grammatical category may be definable both in terms of a prototype, i.e. in terms of the most characteristic instance, and in terms of necessary and sufficient conditions.

In Korean, once this modal function joined the temporal-aspectual function, the three functions were integrated into one 'TAM-system'. I use this term in the similar meaning in which it was used in Bickerton's (1991) characterization of the Creole TAM system.

Palmer (1986:8) also suggests that "in such cases it is better to deal with them in terms of a 'mixed' system rather than to attempt to argue that they belong to one only". Furthermore, Takeuchi (1987:5) gives her account of such compound systems by suggesting that "...semantic parameters can conveniently be classified into the category -- tense, aspect, and modality..."

In fact, it is doubtful whether any one form can be completely defined by parameters belonging to only one of the three categories. As scholars agree, this network of relationships can be seen in the light of a single form combining three different functions in itself. The form relates to tense, aspect and modality and results in a 'compound' constituent. The Korean Modal suffixes abound with evidence for this claim that they constitute an inseparable grammatical category.

Prior to the presentation of the KMS case, I will start with some examples of English tense markers for an easier understanding of this phenomenon (Comrie 1985:15). Although in most uses the English past tense does serve to locate situations prior to the present time, there are several uses that do not. One is in counterfactuals, e.g. 'If you did this I would be very happy', where 'did' clearly does not have past time reference, but refers rather to a potential action in the future, and in 'If John were here', 'were' refers to counterfactual present. Another example will explicate the point further: In 'I just wanted to ask you if you could lend me a pound', the past tense 'wanted' expresses

polite request. In this example, past time reference is the basic meaning of the past tense, while politeness is a secondary meaning of the same form. In the following section some examples of the cross-categorical interpretation of the KMS will be given.

IV.1.2.1. The non-past tense marker *-(nu)n-* as a TAM system

S.J. Chang (1996:118-124) claims that tense and aspect are so closely related to time that their distinction is often felt as little more than a terminological convenience, and he gives labels tense 1, tense 2, tense 3, and two aspects in the sequence of verb inflection. The following examples are some typical uses of the present tense.³⁰ The co-occurrence of temporal (punctual, durational, or repetitive) modifiers with *-(nu)n-* is used to test and clarify the meanings of the tense in the following examples:

3a. Cikwu -ka twungkul -ta
 earth Subj round Fin
 'The earth is round'

In 3a, the modal sense of categorical assertion is expressed by a zero tense marker after the adjective *twungkul* 'round':

3b. Wuri -nun nul manna -n -ta
 we Subj always meet Ten Fin
 'We always meet'

In, 3b, the habitual sense of aspect is expressed by the present tense marker *-(nu)n-*.

3c. Yekiey congi -lul noh -nun -ta
 here paper Acc put Ten Fin
 'I put the paper here'

³⁰ Present tense has been regarded as non-past by many Korean linguists, especially, by S.O. SOHN (1995).

In 3c, the assertive sense of modality is expressed by the present tense marker *-n-*.

3d. John -i nayil yengkuk -ulo ttena -n -ta³¹
John Subj tomorrow England to leave Ten Fin
'John leaves for England tomorrow'

In 3d, future tense is referred by the present tense marker *-(nu)n-*.

3e. kuttay ilen mal -ul ha -n -ta
that time such word Acc say Ten Fin
'He then said like this'

In 3e, the past tense is expressed by the present tense marker *-(nu)n-*.

3f. Na -nun cinsimulo sakwaha -n -ta
I Top sincerely apologize Ten Fin
'I sincerely apologize'

In 3f, an assertive sense of modality is expressed by the present marker *-n-*.

In the above examples, the suffix *-(nu)n-* denotes such TAM senses as assertive sense of modality, habitual sense of aspect and future time sense of tense. This phenomenon is considered as a cross-linguistic tendency toward duality in the same grammatical category, for example, in English, the simple present typically occurs with time-position adverbials to suggest that a future event is certain to take place: "The plane *leaves* for Ankara at eight o'clock tonight".³²

³¹ Simple present is optionally used to refer to the past with verbs of communication or reception to suggest that the information communicated is still valid, e.g. "I *hear* that you need an assistant" or "I *understand* that the game has been postponed" (Greenbaum & Quirk 1990:50).

³²Greenbaum & Quirk (1990:49)

IV.1.2.2. The past tense marker *-ess-* as a TAM system

The suffix *-ess-* originates from a contraction of *-e-* and *-iss-* 'to exist' expressing the perfective aspect (see V.3.3. The Development of the suffix *-ess-*)³³. It indicates a definite and complete event or state which took place in the past and also a past event or state still having some bearing upon the modal sense. The co-occurrence of aspectual (punctual, durational, or repetitive), modal and temporal adverbials with *-ess-* helps to clarify the tri-functional meanings. The following examples show the polysemy of the suffix *-ess-* :

1) *-ess-* expresses an aspectual sense:

4. Na -nun cikum sayngkakha -ko.iss -ta
I Top now think Asp Fin
'I am thinking now'

5. Ku- nun ka peli.ess -ta
he Top go Asp Fin
'He has surely gone'

6. John -i yengkuk -ey ga -ss -ta
John Subj England to go Ten Fin
'John has gone to England'

2) *-ess-* expresses a past temporal sense:

7. Na nun kuttay yel sal i.ess ta
I Top then 10 years old Ten Fin
'I was ten years old at that time'

³³ *-iss-* is sometimes used as an auxiliary verb preceded by *-a/e* (*-a.iss/e.iss-*) expressing aspectual meaning of completion, e.g. ssek -e.iss -ta /ssek -e.peli -ta 'have rotted'.

8. Ecey na -nun yenghwakwan -ey ka -ss -ta
 yestertay I Subj cinema to go Ten Fin
 'I went to the cinema yesterday'

3) *-ess-* expresses a modal sense:

9. Ne -nun icey cwuk -ess -ta
 you Subj now die Ten Fin
 'You shall certainly die now'

10. Alko poni ku i -ess -ta
 know after the person Ten Fin
 'I recognized him later'

The polysemy of *-ess-*, obtained from *anteriority*, is contextually derived. Those diverse meanings are not solely signalled by the suffix itself, but by other elements such as the speaker's goals and concerns, time adverbials, and lexically inherent aspectual properties of the verbs.

In this case, adverbials play a key role in interpreting the extended meaning of *-ess-*. For example:

11. Ne encey ilena -ss -ni
 you when get up Ant Fin
 'When did you get up?'

12. Ne tutie ilena -ss -ney
 you finally get up Ant Fin
 'Finally, you have got up.'

In 11, the adverbial *encey* 'when' points to a specific time referent, and thus indicates that what is referred to with *-ess-* is a simple past. An adverbial *tutie* 'finally', in 12,

implies that the issue is whether the situation described has reached its terminal stage, and thus the meaning of completion is obtained, signalling that the speaker is concerned with the current state of affairs rather than past time.

On the other hand, the possible meaning of the suffix *-ess-* is also affected by lexically inherent aspectual properties of the verbs, that is, inherent aspectual properties of situations referred to by verbal expressions: achievements, accomplishments, activities, and states. They are punctual and durative. Such differences in inherent aspectual properties among these situation types constrain possible meanings that can be obtained with the suffix *-ess-*. The meanings of completion and termination are in general not compatible with activities and states, and can be obtained only with achievements and accomplishments.

It is noticeable at this point that the same suffix can also be interpreted as indicating modality if we consider the speaker's concern about the proposition. For example:

13. Ne -nun nayil cwuke -ss -ta
 you Top tomorrow die die Mod Fin
 'I'll surely kill you tomorrow'

14. a: Khephi hancan ha -l -ka
 coffee a cup have Mod Fin
 'Shall we have a cup of coffee?'

b: Kuley coha -ss -e
 certainly good Mod Fin
 'Certainly, let's have some'

In 13 and 14, the suffix *-ess-* may indicate the speaker's intention and certainty. We understand that the deontic sense of intentionality is derived from the external physical and social domain and the same suffix is used to denote epistemic worlds that we use to express our concern about a proposition. Thus, they are not basic but contextual and peripheral. Among them *anteriority* can be proposed as the core meaning, neutral in aspect, tense and modality. It simply indicates that a situation is terminated at or before

a certain reference point in time. If the speaker is concerned with the location of a reference point with respect to the situation described, it is identified depending on the temporal juncture the situation is located at.

In this case, what the speaker emphasizes is whether a situation described has passed its due course and thus reached its terminal point. The suffix *-ess-* indicates that the reference point is at or after the terminal juncture of the situation, giving a meaning of completion, i.e. perfective in the temporal view of perfectivity.

In summary, the neutral notion of *anterioity* accounts for cases with a relative past tense interpretation and with a perfective aspectual interpretation (completion) and modal interpretation (certainty) out of the inference that whatever happened yesterday is certain. Whether it gets a past tense meaning, a perfective meaning or a modal meaning in a given context depends on the context. That is, the various meanings that are associated with the suffix are contextually derived meanings due to the speaker's communicative concerns and goals.

IV.1.2.3. Relationship between Deontic and Epistemic modalities in the KMS

Duality of modality is regarded as a universal phenomenon by linguists (Palmer 1986; Lyons 1977; Heine & Hunnemeyer 1991; Sweetser 1990; Walton 1993). Palmer (1976/1990:6) states that there are potentially two very different uses of the modals: to make judgments about the probability of truth of the proposition, on the one hand, and to influence the action of the subject by giving him permission or by imposing an obligation on him to do so, on the other. These two uses of the modals are distinguished as 'epistemic' and 'deontic' modalities; one of them essentially involves making a judgment about the truth of a proposition, and the other is concerned with influencing actions, states or events ('Directive' by Searle's term 1983:166).

There is a striking cross-linguistic tendency towards duality in the same grammatical category. For example *should* in English shows both deontic and epistemic significance (e.g. He *should* go to the doctor; He *should* be at the doctor's by now).³⁴ *Would* in

³⁴ There is considerable parallelism between the epistemic and deontic modes. Both can be described in terms of alternative worlds, and both have parallel subtypes produced by quantifying over these worlds. Thus, epistemic necessity is parallel to deontic obligation, and epistemic possibility is parallel to deontic permission. As a morphosyntactic realization of this parallelism, modal auxiliaries in many languages,

English shares temporal, aspectual and modal functions, like the Korean TAM system.

Such correlations encourage us to search for a broader motivation for the linking of these two apparently disparate semantic domains. Heine & Hunnemeyer (1991:175) relates the two domains in their section 'From deontic to epistemic modality' by generalising that the development from volition or intention to future appears to be part of a more general process that also includes the development of verbal meaning leading from deontic to epistemic modality (see Ch. 5 for detailed discussion).

I will devote the following section to a discussion of meaning expansions in the KMS using mainly the framework proposed in Sweetser (1990). Her metaphoric framework will be amended by adding the inferential mechanism of componential analysis. If the Korean modal suffixes systematically show an apparent multiplicity of semantic usages, as was shown in the previous section, we can assume that there are relationships or some links among the relevant deontic /epistemic domains.

Traditional truth-conditional semantic analysis focused only on logical relations such as inference, entailment and presupposition, ignoring such linguistic device as metaphor, which relates seemingly unrelated deontic and epistemic domains. Multiple senses of polysemous forms do not necessarily seem to share objective truth-conditions.

Componential and Field approaches have also been interested in the closely woven inter-relationships within clearly delineated areas of meanings (e.g. those of kinship and colour). But their limitations are that they cannot be immediately applied to the explanation of semantic relationships between fields, so to speak, inter-fields within a system (for further criticism of previous analyses see Palmer 1976/1990). Viewed as such, they would find it difficult to explain why deontic meanings should be regularly applied to the opposite epistemic domain.

We will consider an example to illustrate the principle of this semantic representation:

15a. Pi -ka o -*keyss* -ta
 rain Subj come Mod Fin
 'It will rain'

notably English, often have both epistemic and deontic senses, and they can usually be ranked in a single hierarchy from necessity/obligation to possibility/permission, along the lines of 'must>will>can>may' (Shopen 1985:241-247).

15b. Ne -lul cuki -*keyss* -ta
 you Acc kill Mod Fin
 'I will kill you'

In 15a & 15b the suffix *-keyss-* is glossed as 'will' expressing the speaker's conjecture on the proposition in 15a; on the other hand, the same suffix *-keyss-* denotes a meaning of 'intention' in 15b. It seems unlikely that there is any objective inferential or presuppositional correlation in the real world between the two senses. However, such variation is intuitively thought to be regular rather than an exception. It is justifiable to ask the question why, then, is the intensitive meaning of *-keyss-* used to mean conjecture, if there is no logical relation between them.

For the explanation we need a theory of semantics that can take conceptual organization into account. This aspect has been considered by Lakoff and Johnson (1980); Lakoff (1987); Turner (1987); Sweetser (1990) and many others. They argue that a great deal of polysemy is driven by metaphoric devices, and that in fact not only our language but also our cognition operates metaphorically.

A brief generalization of their theories is that metaphor allows people to understand one thing through another, without thinking that the two things are objectively the same. According to Sweetser's description (1990) systematic metaphorical connections link our vocabulary of a sociophysical domain with that of the epistemic domain. She asserts: it is not by chance that *must* in English is polysemous between social obligation and logical certainty, although it could be hard to find a common objective feature of these meanings.

Thus, the above-mentioned scholars maintain that the inter-domain connections are cognitively based, and they pervasively influence patterns of polysemy. This position is known as the *experientialist* viewpoint (see Lakoff 1987). The cognitively oriented approach of Colman and Kay (1981) has argued for changes in our understanding of the internal structure of word meaning. They maintain that the internal structure of word meaning is not autonomous but exists against the background of our general assumptions about the world, and word meanings are frequently prototype-based rather than being composed of checklists of features.

Lakoff and Johnson (1980) have further proposed that linguistic usages frequently

reflect our inherently metaphorical understanding of many basic areas of our lives, and argue that the kind of 'likeness' (e.g. cultural categorization of women, fire, and dangerous things into a class) and metaphors inherent in language do not seem to fall out neatly from the sort of features proposed by formal-lexical analysis. Sweetser (1990) argued that two overlapping but distinct systems of metaphors connect (or unify) the vocabulary of physical action/ motion/ location.

The experientialists agree that similarities between the behaviour of deontic and epistemic modality and also some apparently idiosyncratic differences between the two, can be shown to follow naturally from an appropriate understanding of the different natures of the domains in which they operate, and from our understanding of these domains as metaphorically identified with each other.

Fauconnier (1985) and Sweetser (1990) propose ways of explaining this position. They assert that if an analysis of linguistic modality is extended from the real world domain (deontic) to the domain of reasoning (epistemic), a possible explanation can be to find 'counterparts' in both domains. Namely, polysemous structures seem to be able to name counterparts in different domains with the same forms. Thus the closely allied concepts of different modal forces can be more fully understood by examining the linguistic treatment of counterparts in the two domains (this concept in fact seems to be in line with that of the componentialists in that a general meaning is abstracted for both domains).

According to Talmy (1981,1988), our understanding of mental 'forces' in terms of real-world 'forces' can be mapped onto the epistemic world; and the semantics of deontic modality is best understood in terms of our linguistic treatment of force and barriers in general. This position can well be justified by the Korean modal suffixes. For example:

16a. Kule -si -*kwu.lye*
 to do so Hon Mod
 'I permit you to do so'

16b. Seyweli ppalli kanun -*kwulye*
 time quickly pass Mod
 'I realize that time really flies'

16c. Kuley na -to ka -*ci*
 Certainly I too go Mod
 'Certainly, I would go'

16d. Ne -to ka -*ci*
 you too go Mod
 'I wonder whether you are going'

In 16a-16d, the modal suffixes *-kwulye* and *-ci* have senses of permitting instances of taking away (or keeping away) a potentially present barrier. With *-kwulye* and *-ci* the barrier may be a physical one or a social one.

Adopting Talmy's (1988: 49-100) basic idea of dynamic analysis, I shall offer tentative force-dynamic analyses of some Korean deontic modal suffixes. My primary object will be to demonstrate subsequently that such analyses are possible and readily extendable to the epistemic domain rather than to argue for this specific set of analyses as they stand. I prefer to adopt the view that modality basically refers to intention that is directed force and barriers. It seems to be tenable that if deontic modality is viewed as referring specifically to permission giving or to social duty, there could appear to be little chance of extending such an analysis to epistemic modality. The suffix *-kwulye* of permission granting and the *-kwulye* of possibility seem unconnected, since there is no permission granted in the world of reason.

However, according to idea-dynamic analysis, *-kwulye* is an absent potential barrier in the sociophysical world, and the epistemic *-kwulye* is the force-dynamically parallel case in the world of reason, i.e. the epistemic world. The meaning of the epistemic *-kwulye* would thus be that there is no barrier to the speaker's process of reasoning from the available premises to the conclusion expressed in the sentence qualified by *-kwulye*.

Our experience of these domains shares a limited amount of common structure, which is what allows a successful metaphorical mapping between the relevant aspects

of the two domains. In the following section I will provide examples of the KMS which are compatible with the above-mentioned explanation. For example:

17a. Ppali ka -ya.hay
 quickly go Mod
 'You must go quickly'

17b. Ku nun na pota yelsal alay nikka cikum tulimepsi sumwusal ĭeya.hay
 he Subj I than ten-year junior so now certainly twenty-year old Mod
 'Since he is ten years junior to me, he is certainly twenty years old now'.

In 17a, the direct force of authority *compels* us to go in haste; and in 17b, the available (direct) evidence *compels* us to the conclusion that things are described. The modal suffix *-(i)ya.hay* in the first sentence is characterized as deontic modality denoting real-world obligation; and the same suffix in the second sentence as epistemic modality denoting certainty in the world of reason. This duality is not peculiar to Korean but is a cross-linguistic tendency, which is shown in Sweetser's (1990:49) example:

18a. John *must be* home by ten; mother won't let him stay any later.

18b. John *must be* home already; I see his coat.

Sweetser (1982:429) also points out that there is a distinction between a deontic reading (19a) and an epistemic reading (19b) in the following examples:

19a. He *will be* home soon.

19b. He *will be* home by now (since he is usually asleep around this time).

However, we cannot deny that the metaphoric analysis leaves some problems unsolved. One of the basic problems is that the approach fails to draw a clear distinction between similar modals: It does not show the difference between *-ci* and *-keyss-*; *-iya* and *-tela*, which are equally 'is not barred' and 'compels'. And we

understand that the metaphorical approach cannot be the only analytical approach because not all of the extended meanings are derived by metaphorical processes.

In the next section I will exploit both methods of analysis, namely, inferential and metaphoric approaches in the hope that we will be able to combine the opposite views of objectivism and experientialism. There seems to be a misunderstanding that the two opposite views adopt totally different analyses: minimal specification vs. full specification (Lakoff 1987). However, the two seemingly opposite approaches are revealed to go in the same direction. Although the componentialists' way seems to sacrifice full specification for the maximum abstraction, they are not unaware of contextual senses because the process of abstraction itself starts from full specification and considers every possible interaction existing between basic and peripheral senses.

To arrive at a common denominator, every instance has to be taken into account. As Bennett (1990:17) points out "things are not so neatly polarized as Lakoff would have us believe." Similarly Taylor (1995:266) comments on the two approaches: "one which happily allows the proliferation of the number of senses of a word and the other which attempts to maximally restrict polysemy by bringing as many different uses as possible under a single common representation".

What the two domains have in common is that both express a specific degree of probability or certainty concerning the actualisation of events or the truth-value of the speaker's conclusion. Similarly, Sweetser (1982) observes that the possible link between epistemic and deontic domains is metaphorical since we view logical necessity, for example, as being the mental analogue of sociophysical force and logical possibility as the mental analogue of permission in the real world. In the expressions of necessity, the obligation sense of *have to* predicates certain conditions on a wilful agent. In 'X is obliged to Y' the epistemic sense is a metaphorical extension of obligation to apply to the truth of a proposition: X is obliged to be true.

It is noticeable that most of the Korean modals share the meanings of the binary opposition deontic/epistemic modalities. Previous accounts of the opposition can be exemplified as follows:

20a. Wuli kathi ka -l -ka
 we together go Mod Fin
 'Shall we go together ?'

20b. Onul pi -ka o -l -ka
 today rain Subj come Mod Fin
 'Will it rain today?'

In 20a and 20b, the suffix *-lka* has the deontic sense of a proposal and the epistemic sense of potentiality. This dual interpretation is reached by enriching the world described as 'possible' with the world described as 'worth while to propose' and 'potential'.

This cognitive process seems to be driven by the metaphorical/inferential device. When the state of affairs described as a 'proposal' from the speaker's point of view is granted 'potential' by the hearer, this is inferentially understood as issuing 'permission'. 'Proposal' and 'potential' worlds are types of 'possible' worlds. In this view, categories like 'potential' and 'proposal' are nothing but names for different 'possibilities' of the suffix *-lka*. This study suggests a general concept for them, namely, core meaning as 'probability'. Another example will confirm this position and better explain the process:

21a. Na -nun ka -keyss -ta
 I Top go Mod Fin
 'I will go'

21b. Pi -ka o -keyss -ta
 rain Subj come Mod Fin
 'It will rain'

In 21a & 21b, there arises an ambiguity in interpreting the two separate senses of the suffix *-keyss-*: one can be the speaker's 'will' or 'intention' which represents a deontic world in 21a and the second, the speaker's 'guess' about a proposition, representing an epistemic world in 21b.

Here we get two opposite interpretations: one is *na nun ka keyss ta* (deontic) and the other is that the speaker presumes that *pi ka o keyss ta* (epistemic). The possible solution could be the combination of the semantic properties of the verb 'go' with the future tense - possible/probable world (since the action of going does not occur when

the speaker says *na nun ka keyss ta*, that is, the environment of *-keyss-* is deontic in the case of the first interpretation, and epistemic in the second). On the other hand, the suffix *-keyss-* itself is neutral. In both senses, it indicates simply that the speaker is involved in the worlds of possibility and probability. This illustrates that separate senses are derived from the general meaning and its relations in the particular situations.

It is hard to imagine a context in which examples 21a-b could have an interpretation other than deontic/epistemic reference. And the generalization that a semantic parallelism exists between deontic and epistemic notions helps to explain why a linguistic form is used in divergent senses. In the modal system, the basic concepts of possibility, probability and necessity are interpreted in terms of peripheral concepts of permission, obligation, and volition, namely, if we say 'X is not true' it inferentially follows that 'Do not do X'. Thus, the first statement, expressing epistemic modality, is interpreted in terms of deontic modality. In other words, the notions of true/right, and false/wrong are mutually transferable or interchangeable. And the concept of value carries within it the concept of worthwhileness, passing into obligatoriness. In recognising something as good, we at the same time recognise it as worth having (desideratives), worth doing (suggestives) or as imposing an imperative of action or respect, or admiration (honorifics), etc.

Moral convictions contain components of feelings, but these are inseparably bound up with belief (epistemic) that the conduct in question is objectively right or wrong in the sense that it cannot be judged otherwise. Moral judgements are liable to be true or false. This cognitive network is thought to be reflected in modality.

At the same time, this seems to be partly responsible for the fact that the same forms are used for the expression of both epistemic and deontic domains. The relationship of the two sub-systems is to a great extent logical and they are both under the same roof of the modality systems (cf. the diagram shown in the following paragraph).

The basic meaning of the two opposite interpretations can be proposed in the following model:

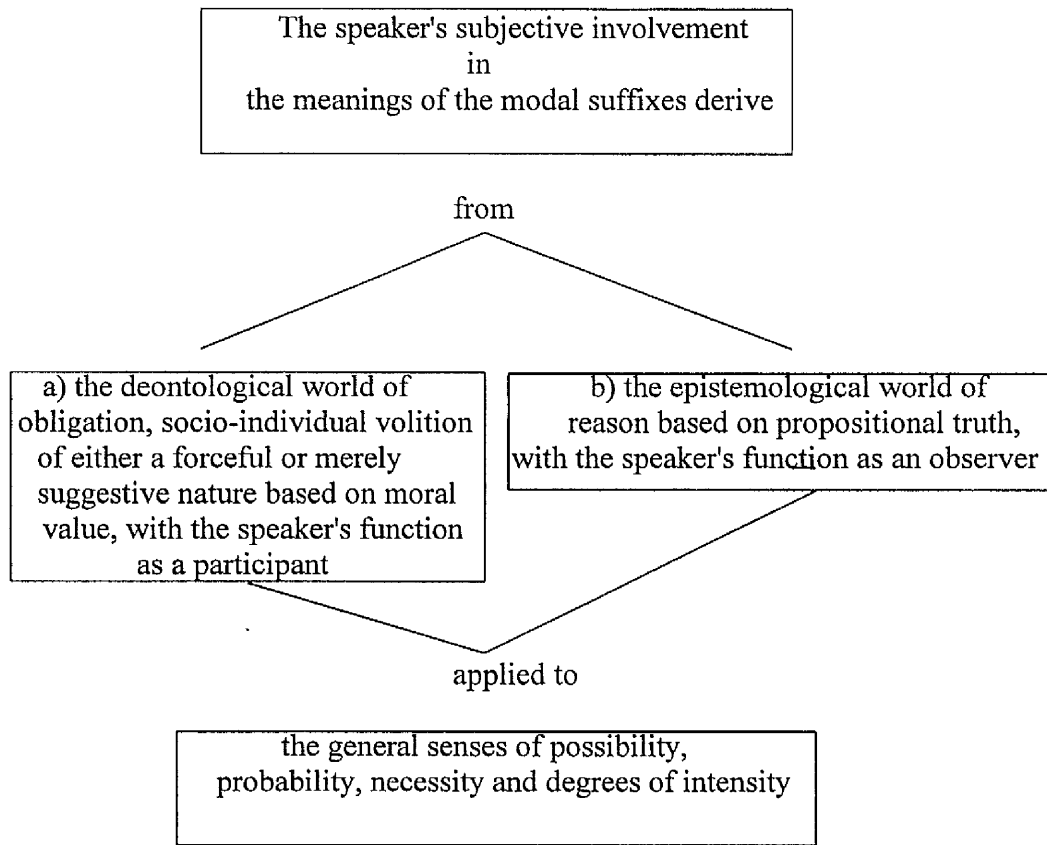


Figure 4 The Basic Meanings of the two Opposite Interpretations of Modality

In this study a criterion is suggested for the test of duality: the degree of a speaker's conviction can be deduced not only from the conversational context, but also by examining adverbial phrases which represent the speaker's degree of confidence towards a proposition, e.g. the collocation of the adverbials *cyom* 'please', which may combine with deontic meanings, *ama* 'perhaps'; *cengmal* 'truly'; *sasil* 'in fact' which combine with epistemic meanings.

IV.2. Phrasal and Verbal Modal Suffixes in the KMS

This section tries to explicate the semantic characteristics of verbal and phrasal modal suffixes³⁵. It also traces their origins, using the diachronic approach.

³⁵ One of the most fascinating aspects of Korean is 'serial' or 'phrasal' verbs. These are flexible in

These grammatical categories can be understood as quasi modals because their syntactic status is marginal and they are still developing into modal suffix proper. According to Bybee, inflectionally-marked modals are almost always epistemic (Bybee 1985:69). She asserts that in the diachronic process, the transition from deontic to epistemic senses has been repeatedly described as being the result of metaphor.

The present study includes these rather fuzzy categories, with the intention of establishing more clearly the semantic features of the Korean modal system. Verbal modal suffixes, such as *-siph-* and *-po-* have been called 'post sentence final auxiliaries' or 'serial verbs' because of their original character of transitive verbs expressing meanings like *siph-ta* 'to wish', *poda* 'to see' and *hata* 'to do' (Um 1990:1). Their original verbal characters are changed to modals when they are preceded by sentence-finals such as *-ta*, *-na* and

-ci and function as the propositional *-matrix-* predicators or sentence qualifiers.

Other quasi-modal suffixes concerned in this study are phrasal modal suffixes, such as *-l/n.tus.ha-*, *-l/n.moyang.i-*, *-l/n.kes.i*, *-l/n.the.i-*, *-l/n.seym.i-* and *-l/n.pep-i*.

This study would like to examine the constituents *-l/n-* and *-i-* which regularly precede and follow bound nouns.

Martin (1992:247) suggests that the suffix *-l-* has been developed from a lexical item in Middle Korean, *uli* 'will surely be', appearing with *-ulyem (una)* expressing cajolatives, or an endearing command. For example:

22a. Kuli ha *-li* -ta
 so do will Fin
 'I will do so'

22b. Ku *-ka* ha *-lye* hantey
 he Subj do will and then
 'He tried to do and then'

(*Hancwunglok* 1805)

nature, thus allow words which possess shared features to combine and create new words, to express situations more clearly, that is, phrasal verbs are formed when two or more words are combined into a single lexical item. Contrary to English, the verb 'walk' can be represented in two compound verbs. e.g. *na mun kele.kasta*. 'I walked and went,' (cf. infrequent English compound verbs such as *pinch-hit*, *drop-kick*, *hitch-hike*). Most Korean aspects are expressed by phrasal verbs, e.g. *ilke.pelita* 'read.completely', *chaca.poassta* 'find.look', etc.

22c. Esti seysang -ey se -li -o
 how world in survive will Fin
 'How can we survive in the world?' (Hancwunglok 1805)

22d. Nay nomo -lul pongyang -ha -l -sa -nya
 my old mother Acc support do will Bn Fin
 'Will you support my old mother?'
 (Olyun hayngsil to translated by Ankwuk Kim 1518)

In the last example, the lexical item *li* is accompanied by the bound noun *sa*, and *-nya* is the contracted form of *-ni + -a* where *-ni* is a predicator. The bound noun *kes* is used frequently in Middle Korean. For example:

23a. Adi mos -kes -i -la
 know not Bn Pre Fin
 'I don't know' (Twu 2:16)

23b. Hyengchey mos isi -myen mos myen -ha -nun -kes -i -la
 form not exist if not exempt do Adn Bn Pre Fin
 'If the form does not exist it cannot be exempted' (Welin:15)

Later, the lexical item *li* developed to the suffix *-(u)n/l-* which functions as a prospective modifier and intentive modal suffix. Later its deontic meaning was expanded to include epistemic modality when its adnominative use was extended to a predicative use followed by the predicator *-ie*, as in:

24. -l + sa + ie > -lsye (wish, conjecture)
 -n + ta + ie > -ntyē (command, assumption)
 -l + ta + ie > -ltyē (wish, presumptive)

where *-sa* and *-ta* are nominalizers and *-ie* is a predicator (Martin 1992: 247).

In this case we observe that the nominalizers *-ta* and *-sa* were replaced by nouns such

as *-moyang*, *-seym*, *-the*, *-kes*, *-tus*, etc., which lost their original meanings in the process of grammaticalization. Thus, the meaning of the adnominalizer *-l* has been retained. In most classic studies, adnominal suffixes *-(nu)n* and *-(u)l* were regarded as tense markers. Martin (1992:246) describes *-(u)l* as Prospective within the future tense class, and *-(u)n* as Processive within the aspect class, respectively.

G.H. Jang (1985) expands her observation of these adnominalizers and recognizes the property of modality in interpreting their general meanings as 'certainty' and 'uncertainty'. However, there is a contradiction as far as the past tense is concerned in her example.

25. Nay si lul ilk.un /ilk.ul/ *ilk.ess.ul/ ku ai -lul teylie.o -lyem
 my poem Acc read/ to read/ to have read the child Acc bring Mod
 'Bring the child who reads/ will read /will have read my poem'

(G.H. Jang 1985:125)

In 25, Jang observes that the use of the adnominal suffixes *-(nu)n* and *-(u)l* is restricted, depending on the characteristics of the predicates. The past suffix cannot be embedded with *-(u)l* as shown in *-ilk.ess.ul-* when the predicator is an action verb, whereas no such restrictions are observed when the verb is descriptive or a copula as in the following examples. The following are examples of phrasal modal suffixes which show no such constraints:

26a. Ecey -nun Swuni -ka hakkyo -ey ka - n -kes i - ya
 yesterday Top Swuni Nom school to go Cert Bn Fin
 'The fact is that Suni went to school yesterday'

26b. Swuni -ka nayil hakkyo -ey ka -l -ke -ya
 Swuni Subj tomorrow school to go UnCert Bn Fin
 'I think that Swuni will go to school tomorrow'

26c. Swuni -ka ecey hakkyo -ey ka -ss -ul -ke -ya
 Swuni Subj yesterday school to go Ten UnCert Bn Fin
 'I think that Suni went to school yesterday'

26d. Kulenikka Swuni -ka te chakha -n -ke -ya
 therefore Swuni Subj more nice Cert Bn Fin
 'Therefore the fact is that Suni is nicer'

26e. Swuni maumssi -ka chakha -l -ke -ta
 Swuni character Subj nice UnCert Bn Fin
 'I think Suni's character is nice'

26f. Elyessul ttay -nun Swuni -to chakhay -ss -ul -ke -ta
 young when Top Swuni too nice Ten UnCert Bn Fin
 'I think that when Suni was young she was also nice'

In 26a-26f, the suffixes *-(nu)n-* and *-(u)l-* reflect the speaker's mental attitude, rather than describe the objective situation; the suffixes *-(mu)n* and *-(u)l* express the speaker's subjective attitude toward the proposition, uncertainty and certainty.

In S.J. Song (1988:32) *-n/mun-* is defined as a modifier which indicates that the event is completed or continues into the present. However, this study interprets this phenomenon as a grammatical transference from adnominalizer to phrasal modal suffix and the more specific syntactic constraints are reduced to a general status. This syntactic phenomenon implies that the phrasal suffixes express epistemic modal senses and are not derived from the adnominalizers alone but from the phrase as a context. Since there is a systematic co-occurrence of bound nouns followed by predicators such as *-i* and *-hata*, it can be generalized that epistemic modality always accompanies these constituents, and that if *-l/n-* occur in place 5-3 with no *-ess-* + *-ess-* intervention, they express deontic modality. For example:

27a. Na -nun ka -n -ta
 I Top go Mod Fin
 'I (simply) go/ I intend to go'

27b. Ka -l -kkey / lay
 go Mod Fin
 'I intend to go'

In 27a and 27b, the suffixes *-l/n* express the deontic meaning of intention without accompanying bound nouns or predicators between the adnominalizer *-l* and the sentence final suffix *-ta*. This phenomenon of generalization and contraction results in grammaticalization.

Examples of schematic grammaticalized phrasal modal suffixes are shown as follows:

28. Phrasal Modal Suffixes

Adnz	Bn	Pre	Fin
<i>-l/n</i>	<i>tus</i>	<i>ha</i>	<i>ta</i>
<i>-l/n</i>	<i>pep</i>	<i>ha</i>	<i>ta</i>
<i>-l/n</i>	<i>moyang</i>	<i>i</i>	<i>ta</i>
<i>-l/n</i>	<i>kes</i>	<i>i</i>	<i>ta</i>
<i>-l/n</i>	<i>the</i>	<i>i</i>	<i>ta</i>
<i>-l/n</i>	<i>seym</i>	<i>i</i>	<i>ta</i>

Table 17. Phrasal Modal Suffixes

In 28 the bound nouns *kes* 'fact', *tus* 'like', *moyang* 'appearance', *the* 'mean' and adnominal modifiers *-l/n* are formed into <Adnz[-l]+kes/moyang/ tus.i.ta> 'it will/may be that/ will/ probably', where the meanings of the bound nouns are generalized and they are frequently contracted, as in:

29. kes (bound noun) + i (predicator) > *ke*
 the (bound noun) + i (predicator) > *the*
 moyang > *yang* (deletion)

Examples of grammaticalized phrasal modal suffixes are shown:

- 29a. Pi -ka o -l/n -tus -ha -ta
 rain Subj come Adnz Bn Pre Fin
 'It will rain / might have been raining'

- 29b. John -un ka -l/n - moyang -i -ta
 John Top go Adnz Bn Pre Fin
 'John will go/might have gone'

In this regard, adnominalizers *-n/l-* cannot be modal suffixes but the whole phrases can be modal suffixes. There is no distributional difference between *-keyss-* and phrasal and verbal modal suffixes expressing the same general meaning of intention and conjecture.

- 29c. Ka -l.ye.ha -o
 go Mod(Int) Fin
 'I intend to go'

- 29d. Ka -l.they -ta
 go Mod(Int) Fin
 'I intend to go'

- 29e. Ka -l.ke -ta
 go Mod(Int) Fin
 'I intend to go'

29f. Pi -ka o -*l.ke* -ta
rain Subj come Mod(Prs) Fin
'I presume it will rain'

In 29c-f, *-lke-* denotes similar meanings to *-keyss-* in that it expresses the speaker's intention and conjecture.

29i. Ka -l -ka -*po* -ta
go Mod Fin Mod(Int) Fin
'I intend to go (but am not sure whether I shall be able to)'

29j. Pi -ka o -na -*po* -ta
rain Subj come Fin Mod(Prs) Fin
'I presume that it is raining'

In sentences like 29j, the suffix *-po-* is used when the speaker presumes something based on his own experience or knowledge (note that the original meaning of *-po-* is 'to see').

29k. I kulim -un caltwey -*n.phok.i* -ta
this picture Top well done Mod(Inf) Fin
'I think this picture is well done'

29l. Ikes -un ssa -*n.seym.i* -ta
this Top cheap Mod(Inf) Fin
'I think this is cheap'

29m. Nai -ey pihey nulku -*n.pyen.i* -ta
age with compare old Mod(Inf) Fin
'I think he looks older than his age'

29n. John -i ka -ss -l.theyn -tey
 John Subj go Ten Mod(Inf) Fin
 'I infer that John went'

It is noticeable that in 29a-29n, some modal suffixes are preceded by the morpheme *-l-* which denotes prospective sense (see Ch. III. & V. for the development of *-l-* and its implications).

29o. Ka -ss -umyen
 go Ten Mod(Int)
 'I wish I go' (Im 1998:77)

29p. Ka -ko -cye
 go Com Mod(Des)
 'I desire to go'

29o and 29p (in archaic & literary style) combined with the preceding complementizer *-ko* express the speaker's wish - mitigated intention. Both suffixes can co-occur with the adverb *kkok* 'certainly'. However, realization in the world is the demarcation of the two suffixes. They are glossed as 'I hope X', 'I wish X' etc. In 29o the suffix *-myen* is combined with the preceding tense suffix *-(a)ss-* to form a subjunctive marker denoting the speaker's wish. In this case, the main clause 'I will be happy' is omitted after the subordinate marker *-myen*. The tense marker *-ss-* expresses hypothetical and subjunctive mood in this context. Further examples of phrasal modals are shown:

29q. Kukey cengmal -i -lka
 it true Pre Mod(Prs)
 'Will it be true?'

29r. John -i o -lyeni
 John Subj come Mod(Prs)
 'I presume that he will come'

29s. John -i ka -*l.tus.ha* -ta
John Subj go Mod(Prs) Fin
'John is likely to go'

29t. John -i ka -*l.pep.ha* -ta
John Subj go Mod(Prs) Fin
'John is likely to go'

29u. John -i ka -na -*siph* -ta
John Subj go Fin Mod(Prs) Fin
'I think John is going'

29v. John -i o -m -*cikha* -ta
John Subj come Nomz Mod(Prs) Fin
'John is supposed to come'

29w. John -i o -*l.moyang.i* -ta
John Subj come Mod(Prs) Fin
'John is likely to come'

29x. Pi -ka o -*l.seym.i* -ta
rain Subj come Mod(Prs) Fin
'It will probably rain'

29y. John -i o -*l.the.i* -ta
John Subj come Mod(Prs) Fin
'John should be coming'

29z. Pi -ka o -*l.swuiss* -ta
rain Subj come Mod(Prs) Fin
'It probably will rain'

The similarity of the suffix *-keyss-* and its equivalent phrasal modal suffixes is that they all express the speaker's prudence or lack of confidence in the truth of what he is saying. The speaker has no sure ground from which to advocate his confidence, and vaguely expresses his speculation. Hence, his belief is not stable and his commitment is weak. Thus, the speaker anticipates that his judgement might be fallible or could be misinterpreted, and he is also aware that his assertion could be challenged by the hearer. Here again the speaker may use these modal suffixes tactically in interpersonal communication to show his modesty and politeness towards the hearer.

It can be tested by examining the adverbials which represent the speaker's certainty -- degree of confidence toward a proposition. The adverbial *com* 'please' may combine with deontic meanings and *ama* 'perhaps', *cengmal* 'truly' and *sasil* 'in fact' with epistemic meanings.

IV.3. The Categories and Systems of the KMS

This section intends to establish the conceptual categories and systems of the KMS.³⁶ The purpose is not merely to assign taxonomic categories but to explicate the relationship between the sub-categories,³⁷ especially the polysemous character of the binary system.

It is also hoped that a more general idea of our complex cognitive network could be reflected in the KMS system. The idea and terminology are borrowed from those of Jespersen (1924), Hare (1952), Austin (1962), Kiparsky & Kiparsky (1970), Lyons (1977), Searle (1979), Givons (1982), Palmer (1986), and Sweetser (1990).

The aim of this typological approach can be summarised as to find out some basic or prototypical features that are the same for all languages and to avoid the vagueness caused by the polysemy of the KMS, which results in difficulties in differentiating

³⁶ Heo, W. (1975) categorizes the Korean modal system into Request/ Without request, then, subcategorized Request into Question, Hortative and Jussive, and Without request into Descriptive, Interjective, Promissive, and Optative assigning seven suffixes into each sub-categories. However, Heo's system is problematic in that: 1) In principle, concepts of both Volition and Request belong to the same subcategory of deontic modality, and epistemic modality is missing., 2) The seven Korean suffixes express only deontic modality, however, cross-linguistically, modals are normally bi-functional expressing both deontic and epistemic modalities. 3) there are some hierachical level-clashes between subcategories and 4) Interjective is simply not modal.

³⁷ Ravin & Leacock (2000:7) define the conceptual category: ...the categories are arranged in a hierarchy, where concepts on the same level of the hierarchy inherit and share the core properties of the higher concepts, but have defining features that are mutually exclusive.

between modality, tense, and aspect.

This study will start by establishing criteria and definitions of sub-categories and propose their formulations while providing appropriate examples. Applying the typological framework proposed by Palmer (1986), the KMS can be divided into two main domains:- deontic and epistemic. Each domain is sub-divided according to degrees of intensity of will, certainty and politeness.

The concept of semantic clines is invoked, thus, a scalar model of semantics is applied for further categorisation of the sub-systems. The semantic sub-categories are exemplified under each heading. The semantic relationships between the individual suffixes are generalized and summarized at the end of each sub-category.

IV.3.1. Deontic Modal Suffixes

IV.3.1.0. A Conceptual and Cognitive Ground for the Definitions of Deontic Modal suffixes.

According to Hare, J.(1952), deontic modality deals with our modes of interpersonal action which are manipulated by moral value and social codes³⁸. The speaker directs or regulates the hearer's action in accordance with social norms by choosing relevant linguistic forms. Hare assumes that this system has two properties as criteria: 1) universality, and 2) prescriptivity, and that the speaker functions as an active member participating in social life. His life is regulated by authority and loyalty which lead to duty, triggering the attitudes of the speaker towards the hearer. He puts it that if we take into account the concept of duty and consider the participants who are involved, we can sub-divide it into two notions: one is initiated by the speaker and the other by the hearer which leads to a regulative and a volitive modality, respectively.

In this system, basic concepts of possibility, probability, and necessity are interpreted in terms of the peripheral concepts of permission, obligation, and volition; namely, if we say 'X is not true' it inferentially follows that 'Do not do X'. Thus, the former statement expressing epistemic modality is interpreted in terms of deontic modality. In other words, the notions of true/right and false/wrong are transferable or exchangeable

³⁸deontic modality can be compatible with the *interpersonal* function of Halliday's (1985) tripartite function: *ideational / interpersonal / textual* functions.

with each other and the concept of value and goodness carries within it the concept of worthwhileness, passing into obligatoriness. In recognising anything as good, we at the same time recognise it as worth having (desideratives), worth doing (suggestives), as imposing an imperative of action, of respect or admiration (honorifics), etc.

According to Hare's (1952) explanation, moral convictions contain feeling components, but these are inseparably bound up with belief (epistemic) that the conduct in question is objectively right or wrong in the sense that it cannot be judged otherwise. In this chapter, the Korean deontic modal suffixes are distinctively set out according to types of impositive action or intentions and terms are arranged according to the force of the speaker's authority, 'Regulative' and 'Volitive'. In the Regulative system, actions are imposed on the hearer and he is a benefactor or sufferer. And they can be further divided into such conceptual categories as Impositive, Prohibitive, Obligative, Permissive, Requestive, and Propositive. In the Volitive sub-system, actions are imposed on the speaker and the hearer is a benefactor or sufferer. And they can be further divided into such notional categories as Promissive, Intentive, Desiderative, Threative, and Anxietive. Propositive can be thought of as a marginal category in which actions are imposed on both the speaker and the hearer.

IV.3.1.1. Regulative System

IV.3.1.1.1. Impositives

Impositives³⁹ usually convey the strongest type of directive when the speaker is confident to impose his authority on the hearer. In this case the speaker is not in the position to be challenged by the hearer (see concept of barrier in Sweetser 1990).

In Korean, there are five levels of honorific markers expressing Impositives: 1) high (-*sose* and -*ososo*). 2) high plain (-*o*, -*so*, -*ayo* and -*kulekulye*). 3) neutral (-*sa* and -*kes*). 4) low plain (-*key*). 5) low (-*la*, -*a*, -*ci*, -*lyemwuna*, -*lcieta*, and -*lyessta*), etc. (cf. Chang 1996). For example:

³⁹ This study assigns Imperative and Directive into Impositive in that they share the same suffixes.

30a. Pwucilenhi il -ha -la
 diligently work do Mod(im)
 'I compel you to work hard'

The Impositive suffix *-la* in 30a. has *-e.la*, *-ke.la*, and *-ye.la* as its variants. It usually expresses the imposition of the speaker on junior hearers and can be glossed as 'I impose on you to do (or to be) X', where imposition includes notions of compelling, urging, advice, instruction, etc.

The first-person pronoun *na* 'I' and the second-person pronoun *ne* 'you' denoting the speaker and the hearer are normally deleted in the surface structure of the sentences, as in English. However, the deletion of the personal pronouns is norm and unmarkedness in Korean because modal suffixes unfailingly occur co-referentially with underlying pronouns and consequently the use of pronouns is redundant (cf. Figure 2 in Chapter III). For example:

30b. Ka -a
 go Mod(Im)
 'I urge you to go'

In 30b, the suffix *-a* has variant *-e*. The suffix *-yo* is followed when the hearer's social status is higher than the speaker.

30c. Ka -lyem
 go Mod(Im)
 'I impose on you to go'

In 30c. the suffix *-lyem* is a contracted form of *-lyemwuna* and *-lyessta* is used for authoritative imposition.

30d. Ka -key
 go Mod(Im)
 'I urge you to go'

In 30d. the suffix *-key* expresses the speaker's imposition on the hearer whose social status is lower or equal to his, e.g. son in law, old classmates, and who deserve his courtesy. *-kwulye* is used in similar cases as in *-key*.

30e. Ka *-o*
 go Mod(Im)
 'I urge you to go'

30f. Ka *-sose*
 go Mod(Im)
 'I pray you to go'

These suffixes are used with hearers whose social status is equal to or higher than the speaker's. In 30e the suffix *-si-* can precede *-o* for a higher level of honorific expression. The suffix *-so-* is a contracted form of *-si-* + *-o*. In 30f, the suffix *-sose* expresses the speaker's imposition on a hearer whose social status is higher than his. The suffix *-psyo* is a variant.

30g. I selyu -lul ceychwul -ha *-lsa*
 this document Acc submit do Mod(im)
 'I urge you to submit this document'

In 30g the suffix *-lsa* expresses the speaker's imposition on a hearer who has to accept the proposition as a legal obligation or moral duty. This suffix is exclusively used in written style.

30h. Modwu o *-lkes*
 everybody come Mod(Im)
 'I ask everybody to come'

In 30h the suffix *-lkes* (archaic & literary style like the suffix *-lsa*) is neutral in terms

of honorific system.

IV.3.1.1.2. Prohibitives

Prohibitives convey a strong type of countermand against taboo or illegal, unlawful or irrational conduct, based on social norms and rationality. They are substantiated into modes of interpersonal actions: 'If X is not right in terms of social, moral norms, it follows that X is prohibited'. In this situation, the authority and the impositive action of the speaker are strong and necessitated. Thus, the speaker is not in a position to be challenged by the hearer, and he rightfully chooses lower or neutral levels of the honorific system. In Korean, this notion is substantiated by the modal prohibitive suffixes such as *-ma*, *-mos.hay* and *-antwey*. For example:

31a. Ka -ci -*ma* -la
 go Com Mod(Prh) Fin
 'I prohibit you to go'

The suffix '-*ma*' expresses the speaker's negative imposition to the hearer who is obliged to abide by the proposition. It is always preceded by the complementizer '-*ci*-' and followed by the imperative suffixes *-la*, *-sio*, *-psio*, *-lkes*, etc. (cf. Ch. III.6. the Modal negation).

31b. Ka -ci *mos.han* -ta
 go Com Mod(Prh) Fin
 'I prohibit you to go'

In 31b, the suffix *-mos.han-* expresses the speaker's negative imposition to the hearer who has to abide by the proposition. It is preceded by the complementizer *-ci-* and followed by the declarative suffix *-ta*, nominalizer *-m*, or the imperative suffix *-ay*.

31c. Ka -myen *an.twey*
go if Mod(prh)
'I prohibit you to go'

In 31c the prohibitive modal suffix *-an.twey* is preceded by the adverbializer *-myen* 'if' and followed by the declarative suffix *-ta*, nominalizer *-m*, the imperative suffixes *-o* and *-yo*.

IV.3.1.1.3. Obligatives

Possibility and necessity are related to the notion of obligation. When the speaker imposes an obligation or duty upon his hearer, he at the same time imposes the possibility and necessity. Obligative is different from Impositive, in that the speaker has definite confidence in what he is asking. At the same time, the speaker asks the addressee to do something relying on the social norms or a justifiable reason. For example:

32. Ka -*ya.han* -*ta*
go Mod(ob) Fin
'I impose on you to go' or 'You are obliged to go'
(You must go)

In 32 the suffix *-yahan-* is followed by *-ta*, etc. *-yahay* and *-yatwey* are allomorphs of the suffix. It also denotes the speaker's intention.

IV.3.1.1.4. Propositives

Propositive is a weak type of Directive. The force of the speaker's imposition is mitigated and he is subject to the hearer's challenge. It is related to possibility in its intensity. And within the deontic system, it is termed as a marginal category in which actions are imposed upon both the speaker and the hearer. For example:

33. Wuli icey hamkkey ka -a
 we now together go Mod(Prp)
 'Let's go now'

In 33 the suffix *-a* expresses the speaker's mitigated imposition upon the hearer and at the same time his proposal to act cooperatively. The usage of the suffix *-a* for Propositional and Imperative is hardly distinguishable. However, apart from the context of situation, which is usually the only clue leading to the distinction of Imperative and Propositional, the presence of the first person pronoun *wuli* 'we' and frequently adverbials *kathi* 'together', *hamkkey* 'together, etc.', support the Propositional meaning. It is used on the hearer whose social status is either the same or lower than the speaker's. The suffixes *-sey* and *-ca* are among the other Propositionals.

IV.3.1.1.5. Requestives

The Requestives express the speaker's request to the hearer of a favour for his benefit, the speaker is no more imposing but asking or begging in some cases. He is not in the position of taking advantage of his prestigious social status. Thus, he is reluctant to use low-level honorific expressions and he frequently adds the adverb *com* 'please' to the suffixes. For example:

34. Nay kohyang -ulo nal ponay -cwu
 my hometown to me take Mod(req)
 'Take me to my hometown'

In 34 the suffix *-cwu* originates from lexical item *cwu* 'to give' which is a transitive verb. Other Requestives are *-ta.o*, *-ta.kwu* and *-telako*.

IV.3.1.1.6. Permissives

The notion of Permissive is expressed by a deontic possibility: the speaker's favour is rendered to the hearer. It can be glossed as 'I permit you to act X'. For example:

35. Ka -to -toy
 go even Mod(Per)
 'I permit you to go'

This suffix is preceded by the adverb *to* 'even though' and it originates from the verb *toy* 'is possible'. Other Permissives are: *-coa*, *-lyem(wuna)*, *-kwulyey*, etc.

IV.3.1.1.7. Anxietives

Anxietives express the speaker's anxiety with the hearer and imply the speaker's intention to regulate the hearer's actions. Verb *-kekcengita* 'worrying, be afraid' naturally follow this suffix. For example:

36a. Nucu -*l* -la
 late Mod(anx) Fin
 'I am afraid of your being late (so make haste) /I am afraid you'll be late'

36b.* Ilu -*l* -la
 early Mod(anx) Fin
 'I am afraid of your being early'

36b is unacceptable because the speaker's intention to regulate the hearer's action is unnecessary.

The distinctive semantic feature of the Anxietive suffixes is:

[v] → [+negative]

The suffix *-lla* only co-occurs with verbs expressing negative connotation in both epistemic and deontic senses. For example: *cukulla/ *salla* 'die/live'; *thulilla / *maculla* 'incorrect/correct'; *mostwella/ *caltweylla* 'unsuccessful/successful'; *cwukyepelilla/ *salyepelilla* 'kill /rescue', etc.

IV.3. 1. 2. The Volitive System

As was mentioned in the introductory section on the deontic system, deontic modal suffixes can be sub-divided into Volitive and Non-volitive (Regulative) in accordance with the direction of the speaker's imposition (whether it is directed to the speaker himself or to the hearer). It seems that Volitive modals are self-impositive, while Non-volitive modals are addressee-impositive. The notion of Volitive can be explained in terms of a cognitive process. In recognising anything as 'good' or 'worthwhile', we at the same time recognise it as worth having; we intend to, or desire to achieve or fulfil what we think worthwhile. Along these lines, the notions of Desiderative or Intentive of the deontic modality are established.

The Volitive system can be further divided into two sub-systems: Combative and Willingness. According to Searle (1983:166), the notion of Combatives includes two concepts: Promissive and Threats. In Promissive, the speaker imposes on himself the proposition to be fulfilled and the hearer is a beneficiary. In the case of the Threative, the hearer is a sufferer.

The willingness system is further divided into Intentives and Desideratives according to the degree of realizability. In the case of Intentives, the intensity of the speaker's will to fulfil something is at the level of necessity. In Desideratives, it is at the level of probability and possibility.

IV.3.1.2.1. Intentives

Intentives express the speaker's intention and can be glossed as 'intend, want, and try to do, in the construction 'I will X', expressed by such suffixes as *-keys-*, *-ma*, *-Ikke*, *-llay* and *-lye*. For example:

37a. Na -nun ka -*keyss* -ta
I Top go Mod(Int) Fin
'I intend to go'

37b. Nay -ka ka -*ma*
I Subj go Mod(Int)
'I will come'

37c. Nay -ka ka -*l.kkey*
I Subj go Mod(Int)
'I will come'

Note that in all these sentences the subject is the speaker. Intentives are not allowed in questions:

37d. *Nay -ka ka -*ma* ?
I Subj go Mod(Int)
'I will come'

37e. *Nay -ka ka -*lkey* ?
I Subj go Mod(Int)
'I will come'

It also can be noted that they are not used in reference to a third person:

37f. *Ku -*nun* ka -*ma*
he Top go Mod(Int)
'He will come'

Intentives are also expressed by such phrases as -*l.ye.ha-*, -*l.tey-*, -*l.ke-* and -*lka.po-*.

37g. Ka -*l.ye.ha* -*o*
go Mod(Int) Fin
'I intend to go'

37h. Ka -*l.tey* -ta
 go Mod(Int) Fin
 'I intend to go'

37i. Ka -*l.ke* -ta
 go Mod(Int) Fin
 'I intend to go'

37j. Ka -*l* -*ka* -*po* -ta
 go Mod(Int) Fin Mod(Int) Fin
 'I intend to go (but am not sure whether I shall be able to)'

In 37g-j, the intentive modal suffixes are all preceded by the morpheme *-l-* which denotes Prospective sense (see Ch. III.&V. for the development of *-l-* and its implication), and I presume that the Prospective sense of the morpheme *-l-* pervaded in the suffixes. These modal suffixes originated from bound nouns and contracted on the way of grammaticalization : *-lyey-* < *-li-* + *-ieo-*, *-the-* < *-the-* + *-i-*, and *-key-* = *-ke-* + *-i-*, respectively. The modal suffix *-kapo-* originated from the lexical items: *-ka-* + *-po-* 'to go + see'. In 37g-j the subjects are deleted; the distributional conditions are the same as in 37a~f.

IV.3.1.2.2. Desideratives

Desideratives express the speaker's mitigated intention. Both categories, Intentives and Desideratives, can co-occur with the adverb *kkok* 'really'. However, realizability in the real world is the demarcation of the two categories: Intentives are more realizable than Desideratives They are glossed as 'I hope X', 'I wish X', etc. For example:

38a. Ka -*ss* -*umyen*⁴⁰
 go Ten Mod(Des)
 'I intend to go'

⁴⁰ See Yim, H.B. (1998: 77).

38b. Ka -ko -*cye*
 go Com Mod(Des)
 'I desire to go'

In 38a the suffix *-(u)myen-* is combined with preceding tense suffix *-ss-* to form a modal marker denoting the speaker's wish. In this case, the main clause 'I will be happy' is omitted after the modal marker *-myen*. It was originally a conjunctive suffix expressing certain/uncertain assumption with co-referential adverbs such as *hoksi* 'if' and *manyak* 'if'. The past tense marker *-ss-* is used as is the case in English: 'I wish I were.' The modal suffix *-cye* in 38b, is the contracted form of *-ci +e/a-*, and so *-ca* is a variant of *-cye*. The suffix *-myen* also expresses Intentive sense (see IV.3.1.2.1.). Martin (1992:257) terms these suffixes as Frustrated intentive glossing 'I had hoped that ...but'. Yim, H.B. (1998: 77) also gives a similar account.

IV.3.1.2.3. Promissives

In Promissives, the speaker imposes the proposition on himself to fulfil or achieve something. Thus, he is the actor of the event, and the hearer remains as a beneficiary. The particle *-cwu-* originates from a lexical item *cwu* 'to ask a favour or give a benefit'. For example:

39. Neyil ka *-cwu.l* -key
 tomorrow go Mod(pr) Fin
 'I promise you to go tomorrow'

In 39, the morpheme *-l-* which has a Prospective sense following *-cwu-* conjoins to express the modal sense of the speaker's intention and desire (c.f. IV.3.1.2.1. the suffixes *-ma*, *-lkey*, etc.).

IV.3.1.2.4. Threatives

Threative differs from Promissive in that the hearer remains a sufferer rather than a beneficiary. Thus, if the threative suffixes co-occur with beneficiary, the sentence

cannot be acceptable as shown in 40d. Causative suffixes *-i-* or *-ye-* precede this suffix.

For example:

40a. Cwuk -i -*l.kapo* -ta
kill Cau Mod(Thr) Fin
'I will kill you'

40b. Cwuk -ye -*pe-* -n -ta
kill Cau Mod(Thr) Ten Fin
'I will kill you'

40c. Cwuk -i -*lthey* -ta
kill Cau Mod(thr) Fin
'I will kill you'

40d. *?Sa -cwu -*lkapota*
buy Cau Mod(Thr)
'I will buy (it) for you'

Threatives appear in conjunction with causative suffixes, *-i-* and *-ye-* and blasphemous expressions. The following componential formulation is plausible:

cwuk 'kill' + *-i-* + *-l-* (Performative) + *-ka-* + *-po-* (Intentive) = Threative

cwuk 'kill' + *-ye-* + *-pe-*-(Perfective)+ *-l-*(Performative)+ *-ka-* = Threative

Here, the component '*-l-*' denotes meanings of 'to try', 'to perform, or 'to execute'.

The semantic and morphosyntactic distinctive features of the Threative suffixes are:

- 1) [v] → [+causative] preceded by causatives *-i/hi/wu*
- 2) [v] → [+native Korean] they are not Shino-Korean but native Korean.
- 3) [v] → [-moral] swearwords, rude or blasphemous

expressions that are likely to embarrass or offend other people.

The following summary chart schematically compares the characteristics of the two sub-systems of modality and shows their relationship.

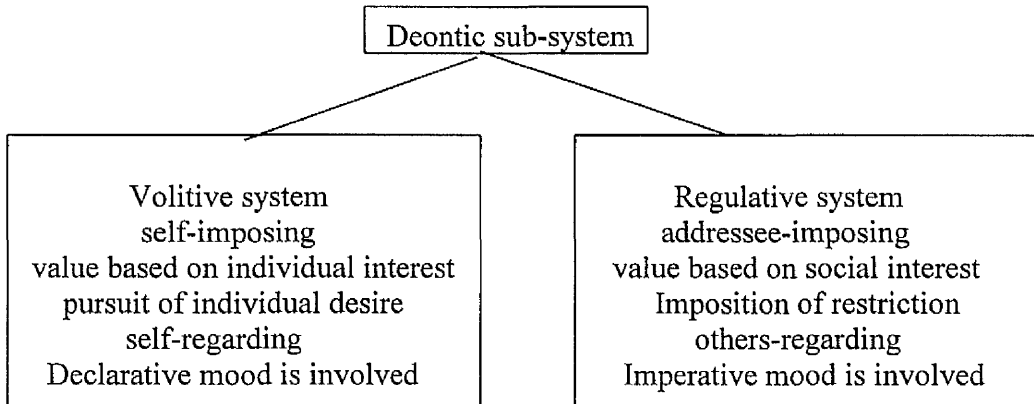


Figure 5. Volitive and Regulative Deontic Modalities in comparison

IV.3.2. The Epistemic Modal Suffixes

IV.3.2.0. The Conceptual ground for the definition of the Epistemic modal suffixes.

This section intends to establish and discuss the criteria of the classification of the epistemic modal system. The whole epistemic system is concerned with the subjective belief of the speaker in the factivity of propositions and it is governed by the truth conditions of propositions. The speaker's function here is a subjective observer of the world. The epistemic concepts will be presented according to a gradation of the intensity of the speaker's beliefs, ranging from absolute belief in what he is saying to definite disbelief. Declaratives and Interrogatives represent its extreme within the system. In actual sentences their domains are other than that of factivity (propositions) and the explicit naming of the speaker is not obligatory in the surface structure of a sentence in Korean.

IV.3. 2.1. Sub-systems of Certainty

This section establishes and discusses the criteria of the classification of certainty system. The category consists of two main sub-categories: absolute certainty and virtual certainty. The relevant criterion is the challengeability of the speaker's assertion by the addressee. Absolute certainty is further divided into Declaratives and Assertives by the criterion of questioning belief.

IV. 3. 2.1.1. Declaratives

Declaratives express the speaker's confidence in the truthfulness of his statement and his addressee's acceptance. In a sense, the statements are taken for granted (cf. Austin 1962 and Searle 1979). Thus, the suffixes *-ta-* and *-(s)o-*, which have been categorized as a declarative mood marker -- sentence final markers -- can be termed 'categorical' assertions.

Lyons (1982:110) states that there is not a language which can utter a subjectively unmodified declarative sentence, e.g. 'the dog is dead'; 'the sun rises in the east'. He means that even though these sentences are syntactically not modalised, their 'assertive' meanings are obvious. In Korean, the declarative suffixes *-ta* and *-o*. express a straightforward statement of a fact. These suffixes also denote the plain honorific level. For example:

41a. Pam -i ki -pni -ta
 night Subj long Hon Fin(Dec)
 '(I assert that) the night is long'

In 41a. the suffix *-pnita* expresses the speaker's assertion at the plain formal honorific level where the addressee's social status is higher than the speaker's.

41b. Na -to halcul a -o
 I also to do know Mod(Dec)
 '(I assert that) I too can do'

41c. Mwul -i malk -so
 water Subj clean Mod(Dec)
 '(I assert that) the water is clean'

In 41b-c, the suffixes *-o* and *-so* express the speaker's assertion together with 'low formal honorific level'. These suffixes, although identical in forms to the interrogative ones, differ from them in intonation, which is rising for the Interrogatives and falling for the Assertives. e.g. *Nayil ttena si o* 'Are you leaving tomorrow?'. The same forms also express deontic meanings as Imperatives. They are not always distinguishable from the homophonous declarative suffixes. However, Imperative sentences, though characterised by the same type of intonation as declarative sentences, are distinguished by their subject omission in the surface structure. For example:

41d. Cwuuy ha -si -o
 caution do Hon Mod(Dec)
 '(I warn you) be careful'

In 41d the subject *tangsin* 'you' has been deleted to form an Imperative sentence.

IV. 3. 2.1.2. Assertives

Assertives are roughly thought to have the notions of maxim, declaration, insistence, advocacy, claim, or dogmatic, pontifical, creetal, pompous overtones. Challengeability by the hearer is the criterion for this category. Their credulity is not taken for granted but they express the strong confidence of the speaker in the truth of the proposition.

A number of attempts have been made at establishing criteria for Assertives in typological studies. However, the suggestion of 'factitivity' as a criterion seems to be unsatisfactory upon examination (Lyons 1977; Hopper 1975; Kiparsky & Kiparsky 1971). Givon's (1994:24) proposal is worth noting here. He suggests that three types of proposition can be recognised:

- 1) Propositions which are taken for granted, via the force of diverse conventions, as

unchallengeable by the hearer and thus requesting no evidentiary justification.

2) Propositions that are asserted with relative confidence, but are open to challenge by the hearer and thus require or admit evidentiary justification.

3) Propositions that are asserted with doubt as hypothesis and are thus beneath both challenge and evidentiary substantiation.

The above suggestions can be interpreted as follows:

Type 1) refers to Declaratives and Assertives⁴¹, 2) and 3) to Evidentials and Judgements respectively. However, this study assigns the first category into 'absolute certainty' and the last two into the category of 'virtual certainty' on the grounds of the formal categories of the Korean data. Justification or substantiation for the category of 'absolute certainty' is not needed because modality, by definition, concerns the speaker's *subjective* account of the contents of the sentence. For example:

42a. Na -nun ka -no.la
 I Subj go Mod(Ass)
 'I assert that I am going'

42b. Kot pom -i o -na.ni
 soon spring Subj come Mod(Ass)
 'I assert that spring is coming'

42c. Ikes -i cohu -ni.la
 this Subj good Mod(Ass)
 'I assert that this is good'

42d. Yeki -ka kuklak -i -lo.ta
 this place Subj paradise Pre Mod(Ass)
 'I assert that this place is a paradise'

⁴¹ For the difference between Declarative and Assertive see IV.3.2.1.1. and the previous section.

42e. Am, coh -*komalko*
 Inj nice Mod(Ass)
 'Oh! I do not doubt that it is nice'

42f. Ol -*khe.ni*
 right Mod(Ass)
 'I assert that it is right'

42g. Kyelceng ha -*l kes*
 decide do Mod(Ass)
 'I assert that I will decide'

42h. Mary -nun cham ippu -*ney -yo*
 Mary Subj very pretty Mod(Ass) Fin
 'Mary is very pretty, isn't she?'

In 42a-h the suffixes *-no.la*, *-na.ni*, *-muni.la*, *-i.lo.ta*, *-komalko*, *-kheni*, *-lkes* and *-yo* express the speaker's confidence and authority. It is noted that all the assertive suffixes except *-komalko* are surviving Middle Korean suffixes which were used in rather pedantic, poetic, and pompous expressions. In 42e. the suffix *-komalko* expresses the speaker's belief in his statement. The pattern can be glossed as 'It goes without saying X', 'I am telling you X' or 'Of course X'. It can also be used as an emphatic affirmation in an answer to a question, (The equivalent of the deontic sense is the speaker's strong will, e.g. *-komalko*). For example:

42i. Ka -*komalko*
 go Mod(ass)
 'It is no doubt that I go / Of course, I go' (answer to the question *Ne ka -ni?* 'Are you going?')

The criteria of assertion are not only the fact that the truth of the proposition is taken for granted but also that the speakers have authority and their statements are taken as

truthful on the grounds that their social status deserves respect. Korean society has established a convention that juniors normally accept what their seniors state to be true because of their socially accepted integrity and reliability. Thus, whenever seniors make assertions to juniors, they employ the assertive suffixes in their statements. This social convention has been well exercised in the Korean language in general.

In 42f and 42g, the suffix *-ni* expresses certainty and the suffix *-kes* is a short form of the modal phrase *-l.kes.i-* which is exclusively used in the written language (i.e. legal documents), with authoritative connotations. It also expresses the deontic senses of Imperative and Regulative in legal documents or official memoranda (see IV.3.1.1).

The suffixes used in expressing tense and aspect also indicate the speaker's assertion, (cf. the TAM system in the previous chapter). For example:

42j. Pi -ka o -n -ta
 rain Subj come Ten(mod) Fin
 'I assert that it rains now'

42k. Pi -ka o -wass -ta
 rain Subj come *Ten(Mod)* Fin
 'I assert that it has rained'

42l. Pi -ka o -koiss -ta
 rain Subj come Asp(Mod) Fin
 'I assert that it is raining'

In 42j-42l, the suffixes *-n-*, *-wass-*, and *-koiss-* indicate the speaker's assertion because they are categorical (present) and perfective, which gives them sense of definiteness. Evidentials such as *-ten.te* and *-la.nikka* also have assertive sense expressing the speaker's certainty (cf. the next section). For example:

42m. Ku -nun kongpwu -lul cal -ha -ten.te
 he Top study Acc well do Mod(Ass)
 'I am sure that he was studying well'

42n. Ap nay -ey koki -ka man -tela.nikka
front stream in fish Subj plenty Mod(Ass.)
'I am sure that there were plenty of fish in the front stream'

Taking into account the explicit criteria for the related notions suggested by Givón (1984), it can be generally assumed that mitigation of absolute certainty is exploited in the following circumstances: 1) when the speaker wants to show modesty in assertion. 2) when the speaker wants to defend his position as being truthful from a challenge by the addressee. 3) when the speaker imagines possible worlds other than the current world. The strategies of the modification are by 1) indicating that he is not presenting what he is saying as fact, but rather that he is asserting it as a result of inference or deduction. 2) indicating that he is quoting what a reliable person asserts. 3) showing evidential clues based on perceptions through senses.

All the tactics can be summarised as being concerned with the indication that the speaker has less commitment to the truth of the proposition. In other words, the speaker's confidence in the truthfulness or assertive intention are mitigated. They are realized by the linguistic devices of relevant notions: Evidentials, Quotatives, Deductives, Inferential, etc. Propositions are modified by the suffixes representing modality glossed as: 'It is possible X', 'I think X', 'It is to be concluded X', 'It is said X', 'It is heard X', 'It appears X', 'It is perceived X', etc.

This study classifies them into four categories in terms of the degrees of intensity: Evidentials > Quotatives > Deductives > Inferentials in the given descending order.

IV.3.2.1.3. Evidentials

Evidential modality is substantiated by such suffixes as *-ney*, *-kwun*, *-tela*, *-tita*, etc.

1) The suffix *-ney* indicates present time reference (compare with the suffix *-te* which indicates past time reference). The suffix *-ney* also expresses deontic modality indicating the speaker's notice to the hearer which in some occasions expresses request or courtesy to a junior.

43a. Yen -i cipwung -ey iss -ney
kite Subj roof on is Mod(Evi)
'A kite is on the roof, I can see'

43b. Acwu an po.i -ney
totally not seen Mod(Evi)
'I realize that it is totally out of sight'

43c. Tal -i poi -ney
moon Sub seen Mod(Evi)
'I can see the moon'

43d. Isanghan soli -ka tuli -ney
funny noise Subj heard Mod(Evi)
'I hear a funny noise'

43e. Cwuk -keyss -ney
die will Mod(Evi)
'I feel as if I am dying'

In 43a-e the suffix *-ney* expresses the speaker's sensory experiences and supplies evidence for judgement. It accompanies honorifics in the low plain level.

2) The suffix *-kwuna*: the time of judgement is the present. For example:

43f. I kkos -ul ttass -kwuna
this flower Acc pick Mod(Evi)
'I realize that you have picked this flower'

43g. Ne to khes -kwuna
you too grow Mod(Evi)
'I realize that you too have grown'

43h. Nal -i tep *-kwuna*
 weather Subj hot Mod(Evi)
 'I feel the weather is hot'

Syntactically, the suffix *-kwuna* is normally preceded by a tense-aspectual suffix *-ess-*. However, there is no restriction when it occurs with descriptive verb stems, e.g. 43h. And it forms a compound modal suffix with *-te* which indicates past time reference: *-te.kwuna* expressing the speaker's present judgement of the past event. For example:

43i. Ku -ka owa -ss *-te.kwuna*
 he Subj come Ten Mod(Evi)
 'I find that he/she had come'

43j. Achim -i palka o *-nwuna*
 morning Subj illuminate start Mod(Evi)
 'I see that a dawn is breaking'

3) The suffix *-tela* can be glossed as 'I report to you what I saw the actor was doing or what event occurred' and 'I tell you my deduction or inference based on my first hand experience and perception'. From these glosses, we infer that the action or situation under discussion is taking place in a 'world over there' either physically or emotionally remote from the speaker.

Knowledge sometimes suddenly enters the speaker's conscience from world over. And sometimes, the suffix *-tela* cites acknowledged and long-standing facts or proverbs. These modal usages of *-tela* come close to the basic meanings from which temporal, aspectual, and honorific meanings derive. In these situations, one is rarely calm and objective, and a sudden realization is a subjective reaction and naturally accompanies emotional reactions such as surprise and excitement. When one is recalling past events, memories may be inexact. Under such circumstances we often paraphrase *-te.la* as 'It seems to me that...', 'It looks as if ...', or 'It must be that..', etc (cf. the probability in IV.3.2.3.). Its variants are *-ti*, *-tay*, *-lay*, *-la* and it also participates in compound modals such as *-te.kwun*, *-ten.kel*, *-te.ni*, *-te.nyo*, *-te.kwuman*, *-tela.ni*, etc. Examples are:

43k. Kay -ka cis -te -la
dog Subj bark Mod(Evi) Fin
'I recall that a dog was barking'

43l. Tal -i palk -te -la
moon Subj bright Mod(Evi) Fin
'I saw the moon was bright'

43m. Mary -nun yeppu -te -la
Mary Top pretty Mod(Evi) Fin
'I found Mary pretty'

43n. Yocum pap -i cal mek.hi -te -la
recently meal Subj well eaten Mod(Evi) Fin
'I have experienced an increase of appetite recently'

43o. Na -to molukey wul -te -la
I even unconscience weep Mod(Evi) End
'I found myself unconsciously weeping'

43p. ku -ka coh -te -la
he Subj nice Mod(evi) Fin
'I found him nice'

43q. moey man nop -ta ha -te -la
mountain only high Fin say Mod(Evi) Fin
'I notice that people complain about the height of the mountain'

In 43k the speaker recollects that he heard a dog barking; in 43l, the speaker recalls that he saw the bright moon; in 43m the suffix *-tela* expresses the speaker's assessment based on his own perception; in 43n the speaker indicates reaffirmation of his recognition; in 43o the speaker recognizes something belated; in 43p the speaker asserts

what he experienced; in 43q the speaker shows sagacity to grasp a maxim.

The past time reference is not an obligatory condition in this case, when time reference is needed *-ess-* precedes *-tela* to indicate past time. For example:

43r. Pelsse John -i ka -ss -te -la
already John Subj go Asp Mod(Evi) Fin
'I recall that John had already gone'

A compound modal suffix is formed by adding *-keyss-* which refers to the Evidential Presumptive sense. For example:

43s. Pi ka o -keyss -te -la
rain Subj come will Mod(Evi) Fin
'I presume it will rain'

The suffix *-te.la* imposes a modal sense co-related with the suffix *-ess-* which normally indicates the past time reference. For example:

43t. Pi -ka o -wass -te -la
rain Subj come Asp Mod(Evi) Fin
'I find it had rained'

The suffix *-te.la* implies honorific sense in the inflected forms: a high formal level in *-pti.ta* and *-tey.yo* and a low plain level in *-tye*. For example:

43u. Pi -ka o -p -ti -ta
rain Subj come Hon Mod(evi) Fin
'I find it rains'

IV.3.2.1.4. Quotatives

The quotatives share their character with Evidentials in that the speaker asserts what

he is saying with relative confidence, and his assertion is open to challenge by the hearer. Thus, he needs some evidence to support his assertion. However, they are different from Evidentials in the ways of justification: they rely on what others have said. The speaker quotes what others have said: when he needs 1) to plead self-defence. 2) to disclaim responsibility for the validity of what is said. 3) to assert over the hearers his authority to educate or advise them -- in this case he uses proverbs, myths, old sayings, etc., which everyone in the society accepts or believes to be a conventional truth.

Sometimes, Quotatives sound objective, indicating not what the speaker believes or thinks, but what has been said by others. However, his intention is actually to assert effectively what he tries to say by using other's authority or disclaim his responsibility for the statements. This category is realised by a combination of *-ta*, *-o*, *-tan.ta*, *-lan.ta* *-la.o* and *-ta.o*. For example:

44a. John -i apu *-tan.ta*
John Subj ill Mod(Quo)
'They say that John is ill'

44b. John -i apu *-teyss.ta*
John Subj ill Mod(Quo)
'They said that John was ill'

44c. John i apu *-tapni.ta*
John Subj ill Mod(Quo)
'I am told that John is ill'

44d. John -i apu *-tate.la*
John Subj ill Mod(Quo)
'I heard that John is ill'

44e. John -i ka -n -*ta.o*
 John Subj go Ten Mod(Quo)
 'They say John is going'

44f. John -un papo -*la.o*
 John Top stupid Mod(Quo)
 'They say that John is stupid'

44g. John -i ka -n -*tay*
 John Subj go Ten Mod(Quo)
 'They say that John is going'

In 44a the suffix *-tan.ta* indicates present tense and low + plain level of honorific expression; in 44b the suffix *-teyss.ta* indicates past tense and low + plain level; in 44c the suffix *-ta.pni.ta* indicates high + formal level (its past form is *-tapti.ta*); in 44d the suffix *-ta.te.la* denotes low + plain level, and the suffix *-la.te.la* is its variant; in 44e the suffix *-la.o* denotes present tense and high + plain level; the suffix *-ta.o* of 44f is a variant of *-lao* in 44e; in 44g the suffix *-tay* indicates low + plain level and its variant is *-lay*, and the suffix *-yo* follows to express high level honorifics.

IV.3.2.2. The Probability System

This study defines the term 'probability' as indicating the speaker's belief that his statement is true. However, he is no longer sure in the same way as in the dogmatic predication of his statement under the judgement system.

The concept of probability is intimately connected with the modern spirit of scientific scepticism in which any content of scientific theories can be changed (see Popper's (1962) *Conjectures and Refutations*). As Gellner in Magee (1978) puts it, Quine and Popper assure us that we may, and must live with cognitive instability, and this is in turn directly related to the liberal ideas of freedom, tolerance of the modern society. Our actual employment of language is built on such institutions and customs. Thus, the expressions of probability convey the sincere mind of the investigator as well as a polite

doubt which shows modesty in the modern social context where no absolute authority exists other than approved knowledge.

Some intellectuals interpret the abundant use of these expressions of probability by our new generation as manifesting an irresolute and reckless attitude, e.g. Yo-in Song (1985) claims that a generation ago these expressions might have been branded effeminate or effete. He shows that the usage of these expressions is increasing on the basis of data he collected randomly from topical-issues and current-affairs TV shows, and bemoans this phenomenon as an ill wind. However, the present study considers this as an indication of the fact that our new generation has been nurtured in the modern spirit of scientific scepticism.

The concept of the probability is glossed as: 'It is probable X', 'It is possible X', 'It looks like X', 'I would think X', 'I suppose/ guess/ assume / surmise / presume/ imagine/ believe/ conjecture/ estimate X'. This study divides the probability system into two sub-systems: Inferential and Speculative modalities.

IV.3.2.3.1. Inferentials

This system expresses the speaker's confidence in the truth of what he is saying based on the result of his inference from known facts. This is different from the previous Certainty system in that the speaker's confidence is not based on the personal experience or hearsay but on collateral sources, i.e. on logical inferences. Since it is not derived from direct experience, the speaker's confidence in the propositions is not stable. Hence, the degree of the speaker's certainty or commitment is low although the epistemic meaning in question is generally positive and it is possible that Evidentials could have alternative interpretations including, possible fallibilities, misjudgement, inexactness, misinterpretation etc. On the other hand, this probability system conveys politeness which shows the speaker's modesty.

This study proposes several Korean suffixes as Inferentials:

45a. Kukes -un mal -i toy -keyss -ta
it Top sense Subj become Mod(Inf) Fin
'It makes sense'

45b. Ku opera -nun ka -po -*l.man.ha* -ta
 the opera Subj go try Mod(Inf) Fin
 'The opera is worth seeing'

45c. I kulim -un caltwey -*n.pok.i* -ta
 this picture Top well done Mod(Inf) Fin
 'I think this picture is well painted'

45d. lkes -un ssa -*n.seym.i* -ta
 this Top cheap Mod(Inf) Fin
 'I think this is cheap'

45e. Nai -ey pihey nulku -*n.pyen.i* -ta
 age with compare old Mod(inf) Fin
 'I think he looks older for his age'

45f. John -i ka -ss -*l.teyn* -tey
 John Subj go Ten Mod(Inf) Fin
 'I infer that John went'

The phrasal modal suffix, *-n/l + Bn + I* expresses inferential sense.

IV.3.2.2.2. Presumptives

This system expresses the speaker's prudence or lack of confidence in the truth of what he is saying. This is different from inferential modals in that the speaker has no sure ground to advocate his confidence, and vaguely expresses his speculation. Hence, his belief is not stable and his commitment is weaker than in the previous case. Thus, the speaker anticipates that his judgement could be fallible or misinterpretable, and he is also aware that his assertion could be challenged by the hearer.

Here again the speaker may use the Presumptive modality tactically in interpersonal communication to show his modesty and politeness to the hearer. This study proposes

the following forms as Presumptive modal suffixes.

46a. John -i ka *-keyss* -ta
 John Subj go Mod(Prs) Fin
 'I presume that John will go'

46b. Pi -ka o *-l.ke* -ta
 rain Subj come Mod(Prs) Fin
 'I presume it will rain'

In 46b, *-l.ke-* denotes similar meanings to *-keyss-* in that it expresses the Presumptive meaning.

46c. Pi -ka o *-napo* -ta
 rain Subj come Mod(Prs) Fin
 'I presume that it is raining'

In 46c the suffix *-napo-* is only used in cases when the speaker can presume something on the grounds of some evidence or clues from his own observations or knowledge. However, it is different from Evidentials in that the speaker is not certain despite the evidence.

46d. Kukey cengmal -i *-lka*
 it true Pre Mod(Prs)
 'Will it be true?'

46e. John -i o *-lyeni*
 John Subj come Mod(Prs)
 'I presume that John will come'

46f. John -i ka -*l.tus.ha* -ta
John Subj go Mod(prs) Fin
'John is likely to go'

46g. John -i ka -*l.pep.ha* -ta
John Subj go Mod(Prs) Fin
'John is likely to go'

46h. John -i ka -*na.siph* -ta
John Subj go Mod(Prs) Fin
'I think John is going'

46i. John i o -*m.cik.ha* -ta
John Subj come Mod(Prs) Fin
'John is supposed to come'

46j. John -i o -*l.moyang.i* -ta
John Subj come Mod(Prs) Fin
'John is likely to come'

46k. Pi -ka o -*l.seym.i* -ta
rain Subj come Mod(pr) Fin
'It will probably rain'

46l. John -i o -*l.te.i* -ta
John Subj come Mod(Prs) Fin
'John should be coming'

46m. Pi -ka o -*l.su.iss* -ta
Rain Subj come Mod(Prs) Fin
'It probably will rain'

IV.3.2.2.3. Dubitatives

Expressions of doubt are categorised as epistemic modality in that they denote the speaker's uncertainty about his statements. Uncertainty includes the notions of doubt, ignorance, wonder, and questions, and is regarded as the opposite of a weak certainty or possibility such as 'believe' or 'think'. It can be argued that interrogative markers such as *-ka*, *-nya*, *-nyo*, *-ni*, *-o*, etc. express doubt.

Lyons (1977) also notes that a dubitative mood might be regularly used for posing questions as well as expressing modal meanings of doubt or uncertainty.

Palmer (1986) claims that a sense of doubt emerges when the assertive is negated, e.g. 'I don't think he is learning' is similar to 'I doubt he is learning'. Consequently, the Dubitative system can be put at the lower end of the epistemic modality system because it expresses impossibility.

47a. Chwup *-na*
cold Mod(Du)
'I wonder whether it is cold or not'

47b. Selma John *-i ka -lya*
dare John Subj go Mod(Du)
'How dare John go'

This suffix often co-occurs with such adverbials as *selma* 'how come?' *ecci* 'how?' and *chama* 'how dare?' and expresses strong doubt.

47c. Ecci John *-ul icu -l.son.ya*
how John Acc forget Mod(Du)
'How can I forget John?'

The suffix *-l.son.ya* is a contracted form of *-lsoni-* + *-a* and expresses the speaker's strong doubt. It can also express the low honorific level.

47d. Pi -ka o -l -ka
rain Subj come Mod(Du) Fin
'I wonder if it will rain.'

47e. Encey ka -o
when go Mod(Du)
'When are you going'

The suffix *-o* is accompanied by interrogative adverbials such as *encey* 'when', *nwuku* 'who', *wey* 'why', *mwues* 'what', etc.

47f. Mal ha -l.kel
tell do Mod(Du)
'I should have told'

47g. John -i te khu -l.kel
John Subj more tall Mod(Du)
'I wonder if John is taller'

The suffix *-l.kel* expresses the speaker's presumption and repentance indicating failure of expectation or disappointment.

Palmer (1986) categorized this notion into Evaluative sense. However, the present study provisionally treats it as the Desideratives sense of deontic modality on the grounds that it can be glossed as 'I wish I could' (cf.IV.3.1.1.7.). Dubitatives often combine with such adverbials as *selma* 'dare', *chama* 'for the world' and the result indicates strong doubt.

Uncertainty is also expressed by adnominalized sentence followed by phrasal, *-molunta* 'I don't know, perhaps, or maybe'. For example:

48a. Nwu -ka ponun -cito.molun -ta
Someone Subj see Mod(Du) Fin
'Maybe someone is looking at it'

48b. Cohun -*cito.molun* -ta
 noice Mod(Du) Fin
 'Maybe it is good'.

These sentences can then be abbreviated by dropping *-molunta*, and the result is an uncertainty sentence in the intimate or polite styles. For example:

48c. Cip -ey iss -*nun.ci* (yo)
 Home at stay Mod(Du)
 'Maybe she is at home?'

48d. Tola wass *nun.ci* (yo)
 back come Mod(Du)
 'Perhaps he's back?'

The following summary chart schematically compares the characteristics of the two sub-systems of Epistemic modality and shows their relationship. The Epistemic concepts will be presented according to a gradation of the intensity of the speaker's beliefs ranging from absolute belief in what he is saying to definite disbelief.

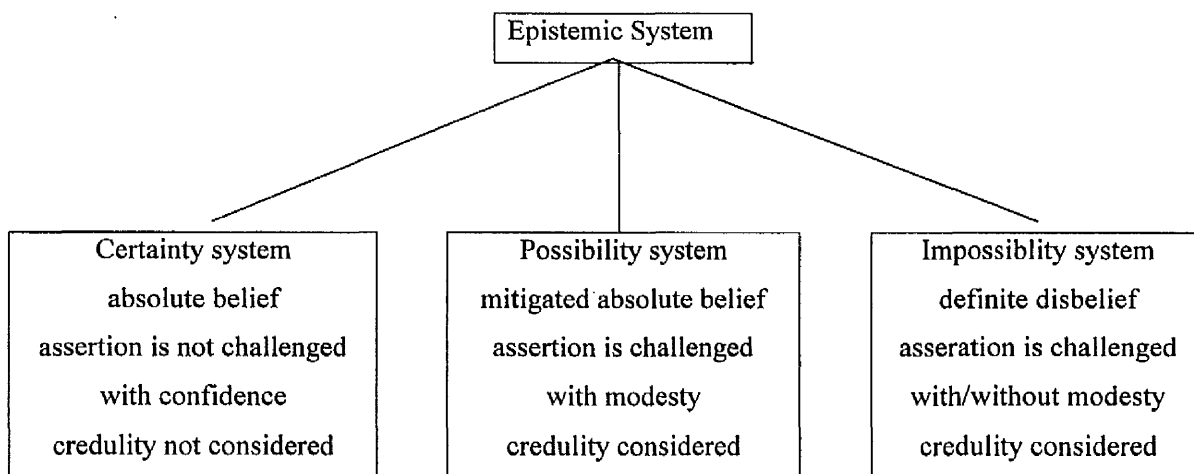


Figure 6. Certainty, Possibility & Impossibility modalities in comparison

IV.4. Summary of chapter IV

The polysemous character of the KMS was described in terms of a compromise between the two approaches – proto and componential semantic theories. The general idea of the complex web of the cognitive network was reflected in the relationship between the sub-categories of the KMS system.

Nineteen conceptual categories and systems of the KMS were established based on the criteria of the prototypical features of modality.

Chapter V. A Diachronic Account of the Korean Modal Suffixes

V.0. Introduction

This chapter explores the historical development of the KMS. The assumption that what might start as a context-dependent extension acquires the status of an established prototypical sense, is applied to a representative set of Middle and Old Korean etymologies.

It is widely assumed that synchronic variation can be best explained from a diachronic perspective and principles of change can best be accounted for from a grammaticalization perspective (cf. Jespersen 1924, Bynon 1975, Lyons 1977, Givon 1982, Sweetser 1982, Palmer 1986, Heine, Claudi & Hunnemeyer 1991, Hopper & Traugott 1993). As Givon (1982:112) states, language has always been in the midst of change in lexis/meaning, syntax, morphology and phonology. Language as a cognitive map is thus not only 'a system of coding knowledge, but perhaps, primarily a system of re-coding, modifying and re-structuring existing knowledge, and integrating it into newly acquired knowledge.' One such instance is found in ambiguity, where two or more related meanings are associated with one form.

This polysemous character has both synchronic and diachronic aspects. What we would really like to have is a motivated account of the relationships between senses of a single morpheme or a word, and of the relationships between historically earlier and later senses of a morpheme or word (Sweetser 1984b). Palmer (1986:5) specifically assumes that the modal system provides a typical example of grammaticalization which develops gradually over time, and at any one point in time will have reached a particular degree of grammaticalization. A good example of this is the creation of the modal verbs in English, which evolved from what were previously lexical verbs.

When many diverse languages independently have the same pattern of meaning changes, we assume that there are universal coherent cognitive strategies that motivate them. At the outset, it will be useful to state the significance of pursuing a diachronic approach according to Bybee (1985). She makes three points. Firstly, it increases the explanatory power of linguistic theory. For example, it is not enough to say that future

morphemes have modal senses because modality has to do with degrees of certainty and the future is uncertain. One also needs to consider the specific lexical sources out of which future morphemes develop, and the inferences available in the contexts in which they are used. Secondly, cognitive factors are more clearly revealed as change occurs in variables opposed to static situations. Linguistic elements are largely conventionalised and unconsciously use the features which point to the correct interpretation. Thirdly, diachrony provides more meaningful and more revealing accounts of the form/meaning correlations.

Accordingly, this study presupposes that synchronic polysemy and historical change of meaning involve the same data, and no historical shift of meaning can take place without an intervening stage of polysemy. All these assumptions presuppose that we cannot rigidly separate synchronic from diachronic analysis situation and that the past evidences inevitably and regularly determine the present resulting state.

This study hopes to find what senses frequently give rise to what later senses and then argues whether there is reason to posit a close semantic link between two senses if one is regularly a historical source for the other. This study would like to apply these theories of grammaticalization to Korean.

The following is a plausible generalization of grammaticalization assumed by many (Hopper & Traugott 1993; Bybee & Pagliuca 1985; Givon 1982; Lemann 1982; Sweetser 1984b; Hopper & Traugott 1993; Bybee 1994).

Grammaticalization theory begins with the observation that grammatical morphemes develop gradually out of 'lexical morphemes or combinations of lexical morphemes and lexical or grammatical morphemes'(Heine et al 1991:3). The lexical morphemes become more frequent and general in meaning, gradually shifting to grammatical status, and developing further after grammatical status has been attained. Grammatical morphemes lose most of the specificities of lexical meanings they formerly had: what remains are very general abstract or relational meanings. Such semantic generalization is called semantic *bleaching* (Givon 1982), *erosion* (Lehmann 1982), *reduction* (Bybee 1985), or *infusion* (Bybee 1994 etc).

As the grammatical morphemes reduce phonologically and semantically, they become more dependent on surrounding material and begin to 'fuse' with other grammatical or lexical morphemes in their environment. This is called 'affixation'.

Where the adjacent material varies, allophony is created. Parallel to the growing phonological dependence on surrounding material is a growing semantic dependence on surrounding material. As the grammatical morpheme loses more and more of its original semantic content, its interpretation is more and more dependent on the meaning contained in the context, and is eventually affected by this context.

One phenomenon associated with grammaticalization is frequency increase, which continues well after grammaticalization status has been reached, due to semantic generality permitting occurrence in a wide range of contexts. Hence, as the use of grammatical morphemes increases, their contribution becomes redundant. A point is reached when their meaning is compatible with the general context and the speaker's intentions. Modal sense is attained at this stage.

This theory will be applied to a well-recognized set of Middle and Old Korean etymologies in the hope of explaining the fact that certain semantic changes occur over and over again throughout the course of Middle and Old Korean. The questions this chapter raises are:

- 1) How the modal suffixes have been grammaticalized from lexical morphemes.
- 2) How the semantic generality phenomenon 'TAM' came about: how have tense, aspect and modality systems existed alongside each other as an integral system?

To answer these questions this study tracks down the origins of the KMS, putting emphasis on the process of grammaticalization, and has its basis in the theoretical assumption and hypothesis which is summarized above.

Historical materials given in this chapter are mainly those of Middle Korean written in *Hankul*; occasional reference is made to Old Korean, for which we have only very limited materials in the form of Chinese characters used for their sound value as phonograms and meanings called *Itwu* (See the next section).

This chapter will begin with a study of *Itwu* texts. *Itwu* is a writing system transitionally used prior to the invention of the *Hankul* system. This is followed by a survey of *Enhay* texts which represent Old Korean and Middle Korean texts which represent Old Korean (up to the 11th century) and Middle Korean (up to the 17th century). This is followed by tracing the development of the Modal Suffixes in the Early late Middle Korean Periods. This chapter proposes the suffixation order in Middle Korean and tries to establish categories and systems of Middle Korean.

A Data Analysis of a Late Middle Korean Text is attempted to affirm the generalization established in this chapter.

Lastly, this chapter summarizes the findings.

V.1. The Development of Modal suffixes in the Itwu Period

For the inquiry into the evolution of Modern Korean modality, sample *Itwu* texts were selected. Their time span covers two periods which approximately extend from the ninth to the sixteenth century.

The *Itwu* ‘吏讀’ writing system was tentatively used before *Hangul*, the Korean Alphabet, was invented in 1446 A.D. by King Seycong of the Yi Dynasty (1392-1910) to cope with the fact that Korean differs from Chinese significantly in its structure. There are two ways that Chinese characters were used to transcribe Korean: One was to use them as phonograms, to represent sounds. The other method of transcription *hwun* 訓, which was developed by Koreans, was to use the characters as a kind of ‘rebus’ for writing Korean words, namely, the characters were chosen for the meanings associated with them, for example: *han sil* ‘great valley’ could be written with the Chinese characters 大谷 because the Chinese words they represented meant ‘great + valley’ in Korean. In this case, the pronunciations of the Chinese characters (i.e. *tay kok*) are ignored. Similarly 牛嶺 is pronounced as *so cay* ‘ox hill’ instead of *wu lyeng*. Thus, in X-mas, the *hwun* reading of X is ‘kris’. It was possible to mix both phonograms and *hwun* readings in the representation of a single word, i.e. 永同 *kil tong* = 吉同 (Lee & Ramsey 2000:46 ff).

Kwukyel (口訣) is one of the subsystems of *Itwu*, which inserts various grammatical indicators into Chinese writings to make them more easily intelligible to Koreans. Early examples of this are found in Old Korean Period inscriptions:

1. 合 五 人 -之
Hap o in ita
whole five people Fin
‘There are five persons in whole’

2. 更 赤城咽 去 使 -之
 tasi ceksengpi sewun Fin
 'I erect Cek-seng monument again'

(Inscriptions in the *Tan-yang Silla Cek-seng monument*)

3. 取 財物 盡 令 節居利 得 -之 -教耳
 own property whole order Chelkeli get Fin Mod
 'I authorise Chelkeli to own the whole property'

4. 令 基 得 財 -教耳
 order him possess assets Mod

'I authorise him to attain property' (Inscriptions in the *Yeng-il Silla monument*)

In 2 and 3, the italicized 之 at the end of each phrase was added to the normal Chinese phrases expressing the writer's subjective involvement in the description. The italicized 教耳 in 3 and 4, were added to normal Chinese phrases to express the speaker's subjective involvement in describing propositions.

5. 天 地 之 間 萬 物 之 中 -厓, 唯 人 伊 最 貴 -爲尼,
 Chen ci ci kan man mwul ci cwung ey, yu in i chwe cwung ha ni,
 'In the multitude of the myriad things midst heaven and earth, Man is the most noble,

所 貴 乎 人 者 -厓, 以 基 有 五 倫 -也 羅
 so kwicwung ho in ca un, i ki yu o lyun ya la.

'what is noble in man is his possession of the Five Human Relationship.' (Oryun, 1)

In 5, the italicised characters are the inserted elements, which are Korean grammatical elements. This study attaches importance to the development of the inflectional finals because they are thought to be the predecessors of the KMS.

Enhay '言解' is a translation of classical Chinese into Korean. Hankul characters are placed alongside the Chinese characters showing readers how the characters should be read and what inflections should be supplied to produce glosses of the Chinese characters.

Cheyongka ‘處容歌’(875 A.D./15c *Enhay* version), one of the well-known texts of the Silla Dynasty, provides us with an understanding of the Itwu and Enhay because it is represented in both systems. Cheyong 處容, the son of the Dragon-King of the Eastern Sea, returned home drunk one night to find his wife in bed with another man. Faced with this awkward situation he recites:

6. 東 京 明-期 月-良 夜入伊 遊 -行 -如可
 Tong-Kyeng polki tal-a pam tuli no-woti -taka 9 C.
 Tong-kyeng pal-kan tal-ye saytolok no-*ni* -taka 15 C.
 capital bright moon dawn until enjoy continue when
 ‘Having caroused far into the night in the moonlight capital’

入良沙 寢 -矣 見 -昆 脚烏 -伊 四是 -良 -羅
 Tuleza caloy pwo -kwon kalwoli neyhi - *le la*
 Tule nay cali -*lul* po -*ni* kala -*i* neyhi -*o la*
 enter my bed Acc see when leg Top four Mod Fin
 ‘I returned home and in bed, found four legs’

二 吃 -隱 吾 下 於叱古 二 吃 -隱 誰 支下 -焉 -古
 Twuvul -*un* nayhay eskwo twuvul -*un* nwukihay -*n* -*kwo*
 Twul -*un* nayhey eniwa twul -*un* nwihay -*eni* -*o*
 two Top mine but two Top whose Mod Fin
 ‘two are my wife's but whose are the other two?’

本 矣 吾下是如 馬 於 -隱 奪叱-良乙 何如爲 -理 古
 Pwontoy nayhayta malalo-non aza -*nol* estiho -*lit kwo*
 Pontey nayhayta malo -*nan* aza -*nol* ecciha -*li ko*
 Originally Mine however taken Acc what do Mod Fin
 ‘Once upon a time what was mine; what shall be done, now these are taken?’

The readings represent the interpretations given in Kim, W. C. (1980). The two versions of translations have six centuries of interval, the former was written in the ninth century and the latter in the fifteenth century.

In 6 content words (nominal, adjectival, and adverbial) are pronounced in vernacular sound with the original meanings of the Chinese characters retained, function words (case markers, post-positionals and modals) are pronounced irrespective of the original meanings of the Chinese characters. The suffixes are italicised and their grammatical functions are: *-(a)n* = adnominal; *-ey* =positional; *-ni* = aspect (continuation); *-(lu)l* = case (accusative); *-i* =Subject marker; *-(nu)n* = Topic marker, respectively.

In this context, the speaker, by employing the suffix *-ela*, tries to express his modal sense of affirming the proposition that two of the legs belong to his wife. It can also be used as a modal suffix when the events in question have been observed 'directly' by the speaker, or when he believes or pretends to believe the absolute truthfulness of the predicated events.

Another modal suffix *-enio* is used to express a modal sense of 'doubt' when he found the unexpected intruder. The morpheme *-e/ie* of the two modal suffixes *-e + -la* and *-e + -nio*, expressing assumption, conjecture, wish and command in modal context, affects neighbouring *-la* and *-nio* by giving them a modal sense -- affixation or infusion in Bybee's (1985) sense. At this stage they have become more dependent on surrounding material and affected by the context. What we call 'affixation' in grammaticalization has arisen, and this is the time when their meaning becomes compatible with the general context and the speaker's intention, hence modal senses are attained.

This shows that active grammaticalization is taking place during this period and it draws our attention because it is fused into the adjacent morphemes creating allophony and this growing phonological dependence on surrounding morphemes is parallel to a growing semantic dependence on surrounding material. It is at this period that potential 'sentence final predicate forms' were developed. For instance, a modal suffix *-ie* is preceded by a proposition and expresses the speaker's attitudes towards the proposition. For example:

7. *-l + sa + ie > -lsye* (wish, conjecture)
- n + ta + ie > -ndye* (assumption, command)
- l + ta + ie > -ldye* (presumptive, wish)

In 7 *-sa* and *-ta* are nominalizers which subjectivize the preceding parts and lead to the modal suffix *-e/ie*. This predicative modal suffix is particularly interesting because it is substituted by many subsequent modal suffixes in Old and Middle Korean (Heo 1975:46-47). The other italicised suffixes are case suffixes marking dative, accusative, subjective and topic, respectively. Among them, topic/subject marker *-i* leads us to assume that it contributes to the development of the sentence final modal marker *-ie/e > -o*.

The early texts tempt us to investigate the reason why some lexical items should appear to attach themselves to main verbs and extend the meanings by characterising the internal structure of the event, namely, the speaker's attitude of modality toward the event. The following inscription that appeared on one of the eleventh century stone pagodas supplies an example:

8. 上 記 如 以 自 援 爲 -臥乎隱 事 -伊 -有叱多
 Sang ki -wa kachi cawonhay -*noun* *il* -*i* -*iss.ta*
 above inscribe as volunteer Asp event Subj Mod

‘(I) affirm that as written above (people) have volunteered’

(An inscription on an old pagoda 1031 A.D in C.J. Ha, 1967)

It is interesting that previous studies (K.M. Hong 1957; C.J. Ha 1967) interpret the lexical item *-iss* with only the aspectual meaning of 'completion' without drawing attention to the meaning of the preceding morpheme *-noun* which means completion.

In Ha's study, the analysis only shows the evidence of development of aspectual and temporal suffixes, neglecting the modal sense of the same items. In 8 the meaning of the lexical items *-iss* and *-noun* have the same sense of existence. However, when they are attached to a verb *hay* 'to have done', their meaning is modified into an aspectual meaning of completion. On the other hand, their original meaning extends from the real-world meaning of 'existence' to an epistemic-world meaning of 'affirmation or certainty' in that the speaker seeks a strong affirmative sense to indicate that the content of the inscription is true and certain: the preceding part of the sentential predicate marker *-i-* is nominal (the act of volunteering). The morpheme *-ss-* is used to express an affirmative sense apart from temporal (past) sense in this context. This epistemic meaning is

associated with pragmatic strengthening, and it is possible to deduce that 'anything completed is certain' (see the development of *-ess-* for further discussion). Another example can be similarly interpreted:

9. 更 如 立 良 爲 臥乎隱 之良 立 隱 多
 Kothye seywu -*la* ha -*n* -*cila* seywu -*n* -*ta*
 rectify erect Fin said Asp because erect Mod Fin
 '(I) affirm that (this statue) has been rectified and re-erected because I
 was instructed to do so'

(the Thongdo-sa Temple Stone Statue, 1080 A.D.)

In 9 K.M. Hong (1957 in C.J. Ha 1967) again interprets the lexical item *-n* only as an aspectual suffix denoting a meaning of 'completion' of action. However, this study inclines to add to it a modal sense of affirmation by recovering a main clause 'I affirm X', on the ground that when the speaker employs the morpheme at the end of the sentence, he not only intends to express the completion of his statement but also to impose his involvement in the proposition.

Another lexical item expressing the same notion is *kyen* which is shown in the inscription of a stone pagoda at the Changwen Temple (939 A.D.):

10. 建 築 爲 臥乎隱 以 有叱 多 古 爲 見 多
 Kenchwuk ha -*nun* i is -*ta* -*ko* ha -*kyen* -*ta*
 build do Adn person exist Fin Com Mod Fin
 'I am certain that there exists a person who is doing building work.'

In 10, we find three suffixes: modifying marker *-nun-*, complement marker *-ko-*, and modal marker *-kyen-*, respectively. The existence of the complementizer *-ko-* makes the complex sentence possible. Accordingly, the modal suffix *-kyen-* functions as a predicate verb of the matrix sentence.

The modal suffix *-kyen-* at this stage seems to have lost most of the characteristics of the lexical meaning it formerly had: what remains are very general abstract or relational meanings. This infusion created some variants, dependent on surrounding morphemes:

11. a. *ha +kyen +ta > hakyenta > -kyen*
 b. *ha +ke + ta > haketa > -ke*
 c. *ha+ ke + is +ta > hakesta > -kes*

In 11 the grammatical morpheme *-kyen* experienced bleaching and was reduced to the allomorphs *-kyen-*, *-ke-* and *-kes-*. The suffix *-kes* seems to be responsible for the development of the modern modal suffix *-keyss* (for further discussion see V.3.1).

The following Old Korean examples from inscriptions of monuments show the evolution of sentence-final suffixes in Old Korean period:

- 12a. 國惡支 持以 支 知 -古如
 Nala ki tin iki al kota
 nala care Dat understand Mod
 'I understand that I should care for my country' (Anmin)

- 12b. 道修 -良 持是 -古如
 To tasa la kituli kota
 discipline Acc wait Mod
 'I will discipline myself and wait' (Cey mang)

- 12c. 臣 -隱 愛錫琅 戶 母 -史也
 sin un ko pi sil ho e sa la
 I Top affectionate mother Mod
 'I am an affectionate mother' (Anmin)

- 12d. 慈悲 -也 -根古
 cha pi la hanko
 generous is Mod
 'Isn't he generous?' (Kwanum)

12e. 人 -是 -有此 -多
 Salam i iss ta
 person Subj exist Mod

'There is a person'

(Hyayseng)

In 12a-e the italicized final suffixes are thought to be the direct ancestors of the Middle Korean modal suffixes.

The following sentences are examples of the evolution of the suffix *-es-* in Old Korean period.

13a. Nala taypyeng ha -s -ta
 nation peaceful do Asp Fin

'The nation has been peaceful'

13b. Yeles kwun twu -es -ta
 many army keep Asp Fin

'(They) have kept a big army'

(Taymyeng 1)

In 13a-b the sentence final *-ta* appears preceded by *-(e)s-* which expresses the aspectual sense of completion. This study speculates that this pre-final marker is the origin of the Modern Korean suffix *-ess-* on the grounds that it is agglutinated to the main verbs *ha* 'to do' and *twu* 'to place' and occurs in the place for pre-final suffixes which express aspectual as well as modal senses.

It is interesting that we can trace the suffix *-ess-* in the Kyengsang dialect of Modern Korean.

14a. Ka -*iss.ko* -yey
 go Mod Fin

'(I) certainly have come'

14b.Ha *-iss.ko* - yey
do Mod Fin
'(I) have certainly done'

In 14a-b, the italicised *-iss.ko-* morpheme expresses aspectual meaning and the speaker's certainty.

V.2. The Development of the Middle Korean Modal Suffixes

The invention of *Hankul*, the Korean alphabet system, marks the Middle Korean period (15c-18c), and this period experiences the development of abundant modal suffixes in the course of the naturalization of Chinese.⁴² It is assumed that Korean suffixes experienced drastic changes during this period due to social change and dialect mixture by increased travel and the invention of printing techniques. Examples are:

15. Soin -un susulo mazam -i han-kaci -ni - la
I Top myself mind Subj alike Mod Fin
'(I) am sure that I myself am in agreement' (Twu 25:15)

In 15, the grammatical morpheme *-ni-* experiences semantic generalization. It lost the lexical meaning 'to say' it formerly had. What remains is a very general abstraction or the speaker's relational meanings of modality. At the same time it becomes more dependent on surrounding morphemes, creating allophones such as *-nola*, *-neyla* and *-nwuna* which express the speaker's 'belief' in the truth and 'certainty' of the proposition and we can easily reconstruct the trace of the deleted matrix sentence 'I am certain that X'.

Modal markers show clues to the speaker deletion by *-la* which is coreferential with the subject I. Here, the nominalizer *-ci-* precedes *-ni-* to mark the final of the proposition and *-ni* predicates the proposition. Thus, it faces the stage of infusion or bleaching when

⁴² Examples are: *-la*, *-nila*, *-ila*, *-eia*, *-no.la*, *-nomayla*, *-sala*, *-lshela*, *-sheyia*, *-isheila*, *-kola*, *-kosila*, *-ni*, *-no.ni*, *-nani*, *-na*, *-koya*, *-kwuna*, *-o*, *-li*, *-ko*, *-lko*, *-lshyeiko*, *-nata*, *-nata*, *-nunta*, *-lta*, *-mananan*, *-malanan*, *-malan*, *-koce*, *-ntya*, *-lshash*, *-sywu*, *-e*, *-ta*, *-nta*, *-nosta*, *-halta*, *-halilota*, *-kocapta*, *-keta*, *-capta*, *-na-*, etc.

it begins to fuse with other grammatical or lexical morphemes in their environment.

The following example will explicate the expansion of the modal meaning of *-ni*:

16. Paykman.ek. cwung -i ta alatuzuva -ni -la
millions of people Subj all understand Mod Fin

'I insist that all the hundreds of millions of people should understand it.'

(Sek 23:12)

In 16, we find that the interpretation of the modal suffix *-ni* is more and more dependent on the meaning contained in the context, and it is eventually affected by this context. In other words, as the suffix *-ni* became more dependent on surrounding sentence finals such as *-la*, *-a* and *-ka* they began to fuse into each other.

We have an alternative reading for *-ni-* (the meaning of obligation), when we imagine a context in which Buddha is teaching his doctrine to the people. In this case, the speaker naturally imposes the necessity for concentration. This phenomenon seems to support Sweetser's (1982) assumption that deontic modals extend to epistemic modals.

The following example confirms that the deontic meaning of intention is transformed into the speaker's epistemic meanings of conjecture with indication of possibility.

17. Na -to ttala ka -l swu -issnun ttang -i -n -ka
I too follow go Adn Adj land Pre Mod Fin

'I wonder whether the land is the place where I could follow'

(Welin 7:39)

In 17 the suffix *-inka*, a contracted form of *i + n + ka*, expresses the speaker's conjecture associated with *-l*, which has a future time sense and sense of possibility. We find that the suffix *-ka* develops later into a modal marker for interrogative sentences. The particle *-i-* functions as a sentential predicator which nominalizes the preceding parts of the sentence. However, it is interesting to note that the particle *-l-* which is associated with the meaning of conjecture now creates a different meaning in conjunction with *-ni*. For example:

19b. Hwueyss salam -i ku cachwy -lul pala -l -cinteyn,
 in future people Subj the model Acc want will if
 'If people of the future want to follow the model .

I -kachi ha -yaza -hali -la
 this like do must Mod Fin
 'You must do like this'

(Welin 18: 48)

19c. Nay siceal ala ka -li -ni
 I season know go will Fin
 'I will come considering the season'

(Pak 9)

In 19a-c the full verb *hali* 'to do' expresses deontic meanings, such as intention, desire, and decisiveness. The speaker's propositional attitude as conjecture is later expressed in relation to the sentential predicator *-i-*. It originated from the meaning of the lexical item *hali* denoting 'intention'.⁴³ In 19b the subordinate sentence provides the logical ground for the speaker to employ *ha li* in the main clause whose function is to achieve decisiveness and future time senses. In 19c the particle *-li* is preceded by *ka* 'to go', which means that due to semantic generality permitting occurrence in a wide range of contexts a time is reached when its meaning is compatible with wide variety of verbs other than *ha*.

On the other hand, the time reference with tense markers is not frequently found in Middle Korean and it is indicated by time adverbials or relevant context. For example:

20. Yenhwa -lul peli -la ha -si -ta
 Yenhwa Acc. Desert Im say Hon Mood
 'I inform you that he told you to desert Yeonhwa.'

(Sek 11:31a)

In 20 the suffix *-la* is a sentence final marker (imperative) functioning as a quotative which is followed by the matrix verb *-ha.si.ta* 'say'. Though *it* does not indicate any time reference, it is clear from the context that it refers to the past. The following

⁴³ N. H. Choi (1990:5~33) suggests that the suffix *-hali-* had already existed in Old Korean, i.e. *ette hali -ko* 'How about?'; *keyka hali -o* 'Shall I re-marry?' See IV.2. for detailed discussion.

example (Y.K. Ko 1981) shows that a tense system was not fully developed until the late Middle Korean period:

21a. Soin -i po -i -ta
 I Subj see Pre Fin
 'I saw'

(Pak translated in 1517)

21b. Soin -i po -*ass* -ta
 I Subj see Past Fin
 'I saw'

(Pak translated in 1677)

Y.K. Ko (1981) claims that it was not until the late Middle Korean period that the suffix *-ess/ass-* was used as a tense marker (for further explanation of the development of *-ess-* see the next section). The above two different versions are translations of the same Chinese story with a 160 year gap between them. Accordingly, in 21a the past time reference was expressed only by the context of the story, whereas, in 21b the particle *-ass-* used to be employed to express aspectual sense of 'completion' also indicates past time reference.

Other examples support the claim that the modal suffix indicating the speaker's retrospection and presumption was used to express future and past tense respectively:

22a. Ne kyecip kulye ka -*ten* -ta
 you wife yearn go Mod Fin

'Were you leaving because you are longing for a woman' (Welin 7:10)

22b. Ciok -ey tulo -*li* -*la*
 hell Dat fall into Mod Fin

'You will fall into hell' (Welin 2:23)

In 22a the suffix *-ten* which was usually used to express the speaker's retrospection of the proposition indicates past tense. Also, in 22b the suffix *-li* which was used to express the speaker's presumption indicates future tense.

V.3. The Development of the TAM System, *-keyss-*, *-te-* and *-ess-*.

V.3.1. The Development of the Suffix *-keyss-*

In Modern Korean, the suffix *-keyss-* has been amply addressed in the literature and established as one of the major tense markers (future) alongside *-(n)un-* (present), and *-(e)ss-* (past). However, there are some controversial claims about its origin. For example:

23. Ramstedt (1939): *-key-* + *-iss-* → *-keyss-*

H.S.Lee (1947) and J.Na (1953): *-key-* + *-hayes-* → *-keys-* → *-keyss-*

S.W.Lee (1958): *-key-* + *-ha-* + *-ass/ess-* → *-keyss-*

W. Heo (1967): *-key-* + *-hayes-* → *-key-* + *-yes-* → *-keys-* → *-keyss-*

K.C. Seong (1974): *-key-* + *-twe-* + *-is-* → *-keys-* → *-keyss-*

H.B. Yim (1980): *-key-* + *-twe-* + *-iss-* → *-keyss-*

Among them, W. Heo's (1975: 459) opinion has been most widely accepted. He suggests that the suffix *-keyss-* originated from *-key-* + *-ha-* + *-yes-* (let somebody do), the adverbial *-key-* denoting causative sense and *ha* 'to act' in conjunction with the perfective sense of *-yes-*. He also claims that *-keyss* replaced the suffix *-li*, which also denotes indefiniteness or indetermination, in the 16th century.

However, this study proposes an alternative hypothesis to Heo's suggestion on the following grounds:

- 1) It does not follow the phonological rules of that period, namely, the newly arrived morpheme *-keyss-* does not follow the typical pattern of sound change of that time, e.g. *-key-* + *-hayess-* normally changes not into *-keyss* but into *-kehhyess-*. For example:

24a. *-ha* + *-yela* 'please do' → *-hyela*

-ha + *-yese* 'do and then' → *-hyese*

(Southern dialect of Modern Korean)

Instances of sound change of *-e- + -i- > ey* is found in Middle Korean⁴⁴, for example:

24b.	adi	mos	kes	-i	-la	>	adi	mos	key	-la
	know	Neg	BN	Pre	Fin		Know	Neg	BN.Pre	Fin
	'I do not know'								(Twu: 20)	

2) If Heo claims that the original sense of *-key-* + *-ha-* + *-yes-* was causativity, the trace should be found in Modern Korean dialects as well, for the change, as he claims, occurred within the last two centuries. However, this study could not find instances of the causative sense in the Modern data (see examples of the suffix *-keyss-* in Ch. IV.). This is significant because normally the original variants continue to be used for a time even if the morpheme experiences grammaticalization (Bybee 1990). It is a general tendency in Korean that various stages of grammaticalization of lexical items continue to coexist. Sufficient examples of coexistence of the variants are found in Modern dialects although the change started in the fifteenth century or perhaps even earlier.⁴⁵

3) Heo's position does not follow the general grammaticalization rule that a lexical item in certain uses becomes a grammatical item, or a less grammatical item becomes more grammatical. His starting point was not a lexical form but the grammatical morpheme *-key* which had already been grammaticalized.

4) Lastly, the research was not concerned with investigating the environmental contexts of morphemes from which potential grammaticalization frequently results. Instead, the present study suggests a phrase for a plausible reconstruction of the original *-keyss* as follow:

25. -l + kes + i > -keys > -keyss

⁴⁴ T.Y. Seo (1988:157) rightly suggests the following phonological processes in Middle Korean: *-asi/esi* → *ays/es* → *ass/ess*. See IV.2. for detailed discussion. Y.H. Kim (1994) categorizes *-kes-*, *-keyss-* and *-kesi-* as variants.

⁴⁵ To take a cross-linguistic example, the original purposive meaning of 'to' in 'be going to' continues to exist after the grammaticalization of 'be gonna' in English until now, e.g. 'Bill is going to go to college after all'; 'Bill *is gonna* go to college after all' (Hopper & Traugott (1993:61).

This study regards *-keyss-* as the result of *-l-* deletion and *-i* contraction in the phrase *-l.kes.i*, since the deletion can be recoverable from a context. After an extended period of time, the omission created a new semantic function roughly equivalent to 'I intend X', 'I conjecture X', which expresses the speaker's point of view. This process of change is ongoing in contemporary Korean. This is supported by the coexistence of related forms, ambiguity of meaning and so on. The current pattern of omission brings about a new function which enhances the speaker's point of view.

The phrasal modal suffix *-l.kes.i-*, which is presumed to be the predecessor of the suffix *-keyss-*, is the latest to appear among modal suffixes. It is believed to have started to appear during the eighteenth century. For example:

26. I -lul po -nun ca kahi aci anichi
 this Acc see Adn person dare understand not

mos ha -l-kes-i -ni -la
 unable to do Mod Mod Fin

'I am sure that any person who sees this cannot but understand it'

(Myengseng 1:30)

In 26 the phrasal suffix *-l.kes.i-* was not yet grammaticalized into a suffix but remained a contracted form of *-l- + -kes- + -i-* in which *-l* denotes 'anticipation' and 'expectation'; *-kes* is a pronominal; and *-i-* is a sentential predicator respectively.

This contracted particle expresses the speaker's expectation and conjecture. The lexical item *kes* is a nominal (or dependent noun), as in the noun phrases: *say kes* 'new thing'; *alum tawun kes* 'beautiful thing'; *mekul kes* 'something to eat'. Its alternative forms in Middle Korean were other bound nouns such as *sa*, *ta*, etc as in phrases: *kalkes* = *kalsa* = *kalta* (You must go). Among them, *kes* has been most frequently used in Modern Korean.

It is important to note here the meaning of the preceding morpheme *-l-* (the morpheme *-l-* is a variant of *-li-*). The present study assumes that the modal senses of conjecture, tentative, uncertainty and temporal sense of future pervaded (infused) from the preceding lexical item *li* and *kes* lost the specificities of the lexical meanings it

formerly had, and what remains is a very general abstract meaning of intention.⁴⁶

For example:

27a. Salu li -la
live intend Fin
'I intend to live'

27b. Ka li -la
go intend Fin
'I intend to go'

In 27a and 27b, the lexical item *li* expresses intention, futurity, conjecture and uncertainty. The suffix *-li-* is followed by nominals such as *kes*, *ti*, *ka*, *sa* and *pa* forming phrases with them. These nominals can be used alternatively. For example:

28a. Ka -l -sa -ni -ya
go will BN Mod Fin
'Will you go?'

28b. Cwuki -l ka ha -nun ttus -i -la
kill will Qu think Adn BN Pre Fin
'I mean that they will kill you'

28c. Nay emi -lul yoyang ha -l -ta
my mother Acc care do must Fin
'You must take care of my mother'

⁴⁶ Martin (1992:247) suggests that the suffix *-l-* has been developed from a lexical item in Middle Korean: *-uli* 'will surely be' appearing with *-ulyem* (una) expressing cajolatives, or an endearing command, and he observes that nominalizers *-ta* and *sa* were replaced by nouns such as *moyang*, *seym*, *kes* and *tus* which lost their original meanings in the process of grammaticalization and the meanings of adnominalizer '*-l*' has been retained.

28d. Ka -l -kes -i -ta
 go will BN Pre Fin
 'I will go'

28e. Ka -l -ti molun -ta
 go will BN not know Fin
 'I don't know whether I will go'

28f. Ka -l pa -lul molun -ta
 go will BN Acc do not know Fin
 'I don't know whether I will go'

28g. Keyka ha -li -o
 re-marry do will Fin
 'Shall I remarry?'

In 28b and 28d the morpheme *-i* predicates the nominal *kes*. The affirmative use of *-kes* is still found in Modern Korean:

28h. Ne -nun ka -kes -ta
 you Subj go BN Fin
 'I affirm that you go'

From 28a-h, we can deduce that the item *li* in different contexts expresses temporal and modal senses. The change is made possible by the fact that there is an inference of futurity in the intensive: If I am travelling in order to marry, the marriage will be in the future. Our examples of *-l kes i->-keyss-* illustrate several factors which are typical of grammaticalization:

- 1) The change occurs only in a very local context, that of the nominal + descriptive construction. It occurs in a descriptive context, such as 'I am describing what is said'.
- 2) In the absence of an overt descriptive phrase, modality can become salient.
- 3) The shift from the descriptive *-l kes i-* to a modal suffix *-keyss-* involves reanalysis

not only of the *-l kes i-* phrase but of the verb *ha* 'to do' preceding it. Thus $[[-l] kes i]$ is rebracketed as $-l [kes]$ where *-l* is deleted. It also involves a change of a nominal from the speaker's descriptives to a modal.

4) The reanalysis is recoverable or manifested only when the verb preceding *-kes* is compatible with a modal meaning. In other words, the reanalysis is recoverable only because the context, in which *-kes* can occur, has been generalized or analogised.

5) Once the reanalysis has occurred, *-l kes i-* undergoes change, typical of modals, such as phonological reduction. The reduction of the three morphemes *-l + kes + i* into one *-keyss-* is possible only because there is no longer a phrasal bracket between *-kes-* and *-i-* and *-l-*. This property of persistence of meaning presumably derives in part from the fact that the older *-l kes i-* coexists with the new use, and hence, there is reinforcement of older meanings and frequently *-li* is replaced by *-keyss-*.⁴⁷

6) In the process of grammaticalization, some of the original relatively concrete meaning of '*kes*' has been lost. However, some new meanings have also been added. These are more abstract, general and speaker-based meanings, specifically temporal meanings based in the speaker's time. It is not surprising to note that *-keys-* > *-keyss-* (phonological process of tensification) is later developed into a tense marker referring to the future, and in Modern Korean, it establishes itself as one of the major tense markers (future) alongside with *-(n)un-* 'present' and *-(e)ss-* 'past'. Let's observe the following examples:

29a. Yak -ul mek.ess -teni com sal -keyss -ta
 medicine Acc took because a bit relieved Asp Fin
 'Since I took some medicine I feel a little relieved'

29b. Pi -ka o -keyss -ta
 rain Subj come Ten Fin
 'It will rain'

⁴⁷ Y.K. Ko. (1981:20-29) claims that *-r/li-* is a direct predecessor of phrasic expression *-l.kes.i-*

29c. Ne -lul cwuk -i -*keyss* -ta
 you Acc kill Caus Mod Fin
 'I will kill you'

In 29a-c, the suffix *-keyss-* is multi-functional : it expresses an aspectual meaning, temporal meaning and the speaker's intention.

V.3.2. The Development of the suffix *-te-*

It has been widely accepted among scholars of Korean that *-te-* expresses the speaker's recalling of past experience or perception. Hence, it has been named 'retrospective' (H.B. Choi 1937; C.J. Kim 1980; W. Heo 1983; S. Martin 1954/1992).

N.H. Choi (1988,1990) suggests that the basic function of the suffix *-te-* historically was to express 'imperfective aspect', and that the modal meaning of the speaker's 'perceptual experience' has been added to its uses. His argument starts from the distributional difference between the use of *-te-* in Modern Korean and in late 15th century Korean. He argues that the meaning of the speaker's 'perceptual experience' was not present in the 15th century Korean.

[Buddha caught Nantha sneaking out]

30. Pwuche -i tepwule chengsa -ey tolao -si.a mulu -si.a -tey
 Buddha Subj together cloister Loc return Hon ask Hon say
 'Buddha returned to the cloister with him and asked'

30a. Nei kyecip kuliwe ka -te -n -ta
 you woman miss go Asp Mod Fin
 'Were you leaving because you were longing for a woman?'

30b. Taytap ha -zao -twe
 answer do Hon Con
 'He answered'

30c. Silun kulihaya ka -ta -ni -ta
 in fact so go Asp Mod Fin
 'In fact, I was leaving exactly for that reason' (Welin 7:10)

In 30c *-ta-*, together with *-te-* (the first person variant of *-te* in 15th century Korean (W. Heo 1975:904), is used for a statement which simply refers to an ongoing situation at the moment specified by Buddha's question in 30b. In this use, N.H. Choi argues, there is no sense of the speaker's 'perceptual experience', which is supported by the fact that the first person volitional subject is used in 30c.

I refute Choi's suggestion by asserting that the suffix *-te* in the late 15th century Korean expresses imperfective meanings of durative and habitual. It is not infrequent that word order is changed according to semantic change in the process of grammaticalization, thus, the preceding adverbial can follow the verb after it has come to be a clitic.

I found an interesting example in Choi's work, for which I suggest a different interpretation. N.H. Choi (1988:10) proposes a hypothesis about the cause of the change in relative ordering between the Honorific *-si* and the Retrospective *-te* by generalizing that 'non-equi subject constraint indicates the suffix *-te* did not express the experiential evidential, hence, did not express modal meaning. For example:

31 Pwuche -i Sangtwu san -ey ka -si.a yong -kwa kwusin -ul
 Buddha Subj Sangtwu mountain Dat go Hon dragon and ghost Acc
 'Buddha went to Mt. Sangtu and he was preaching a sermon

 wihaya selpep ha -te -si -ta
 for sermon do Asp Hon Fin
 for the sake of the dragon and the ghost' (Sek 6:1)

In 31 Buddha's sermon was presented not once but repeatedly, thus *-te-* expresses an iterative aspectual sense and the place of occurrence of *-te-* is not that of modals but that of aspect markers.

However, N.H. Choi (1988) and W. Heo (1975:902) speculate about the meaning of *-te-* by stating ‘there are some exceptions to this reverse ordering in 15th century material and it is not clear what is responsible for such variation (Choi 1988:9).’

This study claims that the addition of experiential evidential meaning to the use of *-te-* triggers the change in relative ordering of the Honorifics *-si-* and retrospective *-te-*. In 15th century Korean, *-te-* as an imperfective aspective marker, naturally occurred closer to the verb stem than the honorific marker *-si-* does. As the retrospective *-te-* added to its basic imperfective (aspectual) meaning the experiential evidential modal meaning, it moved away from the verb stem, ending up following the honorific *-si-*.

Thus, we can generalize that following the functional shift, the word order also changed, and reversal of honorifics and modal suffixes occurred. Let’s see the examples:

32a. Posal -uy censayng -uy wenswu i -le -la
 your Gen former world Gen enemy Pre Mod Fin
 'I think he is the enemy of your former world' (Welin 1)

In 32a it is noticeable that *-lela* occurs as allomorphs of *-tela*.

32b. Senhay tascap ko kiske ha -te -si -ta
 Senhay hug and joyful do Tem Ho Mod
 'I saw him to hug Senhay and was so pleased' (Welin18)

In 32b the temporal suffix *-te-* precedes the honorifics suffix *-si-* for which Modern Korean has the reverse order of *-si- + -te-*.

From the above diachronic phenomenon we could deduce that *-te-* was still in the process of infusion in this period, experiencing phonological and semantic deduction permitting occurrence in a wide range of contexts.

V.3.3. The Development of the Suffix *-(e)ss*

It has also been widely accepted among scholars of Korean that the meaning of the

suffix *-(e)ss* is controversial. Kim, S.D. (1987) especially contributes to this by adding completive and continuative aspectual meanings to the suffix *-ess-*.

An alternative reconstruction of the suffix *-ess-* (Heo, W. 1987, Ko, Y.K. 1981) asserts that *-ss-* developed from the periphrastic *-e- + -iss-* construction, which, I believe, was aspectual perfect in Middle Korean.

The literature generally agrees that the development went through the following phonological process: *-e- + -ys-* construction (15th century) > *-es-* glide loss > *-ess-* tensing of /s/ (Modern Korean).

A common view about the semantic change underlying this phonological change is that the *-ess-* construction in the 15th century and earlier expressed the same meaning as what it is assumed to express today, that is, *duration of resultant* states; and due to this phonological process, the meaning of duration was lost later, the plausible reason being that the auxiliary verb *is* 'exist' became no longer visible (Heo, W. 1987). Heo's opinion is that the phonological change triggered semantic change. However, it is widely assumed that the phonological construction was triggered by semantic changes, not vice versa (Sweetser 1990) because:

- 1) not all the cases of the *-e- + -is-* construction turned into *-ess-*; the *-e- + -iss-* construction still exists in Modern Korean.
- 2) the distribution of the *-e. is-* construction in the 15th century had been much freer than its current distribution in terms of preceding verb types. For this we need to recall that the *-e. iss-* construction in Modern Korean can only be used with non-agentive intransitive verbs and a limited class of action verbs, but not with other action verbs and transitive verbs.
- 3) fairly free distribution of the *-e is* construction in the 15th century through the 16th century began to be restricted about the same time that the phonologically contracted form *-es* established itself as an independent morpheme around the 17th century. Which means that the infusion process of grammaticalization had already occurred at that time.
- 4) In the 15th century material, the *-e. is-* construction and its contracted form *-eys-* co-occur.
- 5) the fact that the distribution of the *-e. is-* construction in Middle Korean was not limited to a restricted set of intransitive verbs, but freely occurred with action verbs

implies that the meaning of the *-e. is-* construction was not restricted to static duratives or resultant states, as it is now, because descriptive verbs and action verbs including transitive verbs cannot denote non-agentive static durative.

6) The infusion is manifested only when the verb following *-e. is-* is incompatible with transitive verbs, or at least unlikely in that context. In other words, the infusion occurred because the context, in which *-e. is* can occur, has been generalized or analogised, to contexts that were unavailable before. The fact that the beginning of the restricted distribution of the *-e. is-* construction coincides with the establishment of its contracted form *-es-* in the 17th century suggests that a meaning differentiation took place around this time between the *-e. is-* and the *-es-* constructions.

It is assumed that the semantic range of the *-e. is-* construction in Middle Korean includes those meanings expressed by *-ess-* in Modern Korean, namely, simple past, completion, the perfect of result and certainty. Thus, it is certain that the modal sense was added in the development of *-ess-* during the Middle Korean Period. For example:

33. Samchen seykey sisang palka *-isi* *-mye*⁴⁸
 whole world always bright Asp Con
 'The whole world remains bright' (Welin 2:25)

V.4. The Suffixation Order in Middle Korean

Y. K. Ko (1981) tried to pin down the word order pattern of the Middle Korean suffixes. He tentatively categorized the suffixes into two groups: Pre-finals and Finals, and allotted four places of their occurrence. The following table shows this.

Subject	Subj.suffix	V-Stem	1	2	3	4
Sunim	kkeyse	ka	si	o	li	ni
	Subj	go	Hon	Hon	Mod	Mod
Monk	Subj.Hon	V	PreFin	PreFin	PreFin	Fin

⁴⁸ *-e- + -is-* in Middle Korean has aspectual meaning of continuation and repetition; *-kyesi-* and *-komhi-* are its allomorphs (J.I.Gwon, 1998:83)

'I assert that Monk will go'

Table 18. Sequential position of verb inflection in Middle Korean

However, this study finds some instances of discrepancy with Ko's sequential position and suggests further positions based on the following reasons: Firstly, the word order of Middle Korean was so unstable until Pre-modern Korean because it was experiencing active grammaticalization and the influence of the Chinese word order was still in effect. Secondly, the place for the verbal & phrasal modal suffixes is missing. Thirdly, the 'effective' aspect and the 'emotive' suffixes in Martin's (1992) interpretation are important categories of Old Korean and Middle Korean which can be interpreted as modals. Furthermore, such conceptual categories as 'emotional' and 'exclamation' are too broad for the sub-modal categories concerned in this study. Examples of the above assertion will be presented as follow:

1) Martin used the term 'effective aspects' for the suffixes *-gwa.la*, *-e/a* and *-ta* with an exclamation mark in his glosses. For example:

34a. I lol cwue silum -ul pwonay.gey hwom ol pilwuswu al -gwa.la
This Acc give misery Acc dispatch Adn Acc firstly learn Exc
'For the first time I learn of a wise master's giving this to dispatch the misery!'
(Twu 55)

In 34a the suffix *-gwa.la* can be interpreted as a modal expressing the speaker's certainty.

2) Martin asserts that the 'emotive' suffixes, *-e/aso.la*, *-tas.ta*, *-nos.ta*, *-twoso.ta*, *-syas.ta* and *-twoswong.ita*, *-hanila* express a subjective statement, often poetic exclamatory. His example is:

34b. I kaksi -nwon mozom -ay mas -twoso.ta
This girl Subj mind Dat match Emo
'Precisely this very girl match the purpose I am pursuing' (Sek 6: 14ab)

In 34b the suffix *-twoso.ta* can be interpreted as a modal expressing the speaker's certainty.

34c. Hyengchey mos -isi -myen mos myen -hata -hani -la
 form not exist if not exempt Fin Mod Fin
 'If the form does not exist it cannot be exempted' (Welin 15)

In 34c *-han.ila* can be understood as a quasi-modal suffix in that its morphosyntactic status is marginal and still on the way to developing into a modal suffix proper. This verbal modal suffix can also be called *the post sentence final auxiliary* or *serial verb* because of its original character of a transitive verb expressing 'to say' 'to see' and 'to do'. Its original verbal character was changed to modal when it followed sentence-finals such as *-ta*, *-na* and *-ci* and functioned as the propositional predicator or sentence qualifier.

3) The script encodes the Korean in the Chinese word order of S + V+ O, and the locative suffix *-ey* is not explicitly encoded.⁴⁹ For example:

35a. Sikyo -nun cey to se nam ha -ta
 town-bridge Subj exist town west-south Pre Fin
 'I assert that the town-bridge is located south-west of the town'
 (Twu 7: 5b)

The expected Korean word order and the missing place suffixes are as follow:

35b. Sikyo -nun to se nam -ey -is -ta
 town-bridge Subj town west south at exist Fin
 'I assert that the town-bridge is located south-west of the town'
 (Twu 7:5b)

35b is the expected equivalent sentence of 35a in Middle Korean.

⁴⁹ The word-order of Chinese charaters are not stable in both Middle Korean and Modern Korean. For example: 溫故知新 (V+N+V+N), 苦盡甘來 (N+V+N+V), 試行錯誤 (V+N+V+N), 男尊女卑 (N+V+N+V), 敬天愛人 (V+N+V+N), 經天緯地 (V+N+V+N), 感世誣民 (V+N+V+N), 出獄 (V+N), 出航 (V+N), 出世 (V+N), etc.

35c. Nwukakceng -ey is -ke -si -nul
 pavilion at exist Mod Hon Mod
 'I say he is in the centre of the pavilion' (Sek 6:40)

In 35c, the suffixation order of the honorific suffix *-si-* is preceded by the modal suffix *-ke-*, hence, the order of *-si* is unstable.

Refuting Ko's (1981:6) and Martin's (1992:261) assertions above⁵⁰ this study tentatively proposes the following pattern as a possible suffixation order of the Middle Korean suffixes:

Sunim	-i	ka	-zop	-(u/o)si	-no	-two	-te/a	-(u/o)n.i.ngi	-ta
Monk	Subj	V	Hon	Hon	Asp	Mod	Mod	Mod	Fin
			1	2	3	4	5	6	7

Table 19. A possible order of the Middle Korean suffixes:

In table 19 numbers refer to places of occurrence (cf. Modern Korean Suffixation places in Chapter III), their morphosyntactic categories are as follow:

V.4.1. The Suffixation Place 1

The suffix occupying this place is deferential, humble suffix *-zop-*. For example:

36. Mey -zop -aci -ngi -ta
 bear Hon want Mod Fin
 'I want to bear it' (Welin10:10b)

V.4.2. The Suffixation Place 2

The suffix occupying this place is subject-exaltation honorific suffix *-u/o si*. Also, it follows the retrospective suffix: *-te/a-si = -(u/o)si-a/te, (u)sya*. When both exaltations

⁵⁰ Martin (1992:261) presents 11 suffixation places which comprise the basic MK verb structure: 1 *-zop-*, 2 *-(u/o)si-*, 3 *-no-*, 4 *-wu/o-*, 5 *-two-*, 6 *-te/a*, 7 *-(u/o)-n*, 8 *-l-*, 9 *-ngi*, 10 *-s-* and 11 *-ta*.

are present, the deferential comes first. Such forms are used to show respect to the listener when referring to his acts toward a superior. For example:

37. Pwumo hyoyang ha si ta
 parent nurture do Hon Fin
 'provided parental nurture' (Welin 21:208a)

Other examples are : *nik-te-si.ni* (Wel: 1: 52b), *na-ka ys-te-si.ni* (Yong 49), *-is.ten-* (Pak 1:37b), and *is.te.sin-* (Yong 88)

V.4.3. The Suffixation Place 3

The suffix occupying this place is aspectual suffix *-no-*. It is attached to adjective and verb stems expressing processive meaning. For example:

38. Yelum ha no ni
 fruit plentiful Asp Mod
 'Its fruit is (becomes) plentiful' (Yong 2)

Other examples are: *-ho -non cyen.cho.lwo* (Nung 1:77b), *-no li gesi nol-* (Yong 8).

V.4.4. The Suffixation Place 4

The suffixes occupying this place are modal suffixes *-two*, *-swo* and *-nwo*. Double emotive suffixes, *-nwo.swo* and *-two.swo* are possible. For example:

39a. za mozom ay hwenhi cul kep two ta
 my heart to greatly delight Mod Fin
 'This very thing is a great delight to my heart' (Sek 3:20b)

39b. *nay nan hwulwo chinshim hon cek ep swo la*
 I birth since angry get once no Mod Fin
 ‘Since my birth I have not once been angry’ (Wel 21:216a)

39c. *Kule ho twoswo n.i.ya aniho twosowo n.i.ya*
 It so Mod End not so Mod Fin
 ‘Is it so or is it not?’ (Mong 1468 57a)

V.4.5. The Suffixation Place 5

The place is occupied by modal suffixes *-te/a* and *-ke/a* expressing retropective sense. For example:

40. *Pep ul nilu si te ni*
 doctrine Acc preach Hon Mod Fin
 ‘(he) preached the doctrine’

Other examples are:

ca-te-la (Twu 8:9b), *ep-te ye* (Wel 8: 91b), *nik-te-si.ni* (Wel: 1: 52b), *mwot.-te.ni* (Yong 9), *na-ka ys-te-si.ni* (Yong 49), *-nik.ten-* (Twu 21:42b), *-nilo.ten-* (Welin 9:36d), *-mwot.te.ni-* (Yong 9), *-is.ten.tayn-* (Kum-gang 79b), *-is.ten-* (Pak 1:37b), *-is.te.sin-* (Yong 88), *-nek.te-* (Nokul 2:53b) and *-ho.tan.cyen.cho-* (Welin 7:13b).

V.4.6. The Suffixation Place 6

The suffix occupying this place is the compound modal suffix *-(u/o)n.i.ngi* expressing the speaker’s polite assertion and intention. It incorporates the copular *-i-* implying subjective judgment. For example:

dialects.

As is the case in Modern Korean, frequent overlap is found across sub-systems of the Middle Korean modal suffixes.

V.5.1. Deontic Modal Suffixes⁵¹

V.5.1.1. Sub-systems of Necessity

V.5.1.1.1. Impositives

Impositive suffixes are assigned to the modality system rather than to the mood system in this study. They are found to express the speaker's imposition of proposition to the hearer. The impositive suffixes *-sywosye*, *-assye* and *-la* represented three different speech levels. *-sywosye* and *-assye* were used by subordinates when requesting action to a superior, and *-la* was the plain style impositive suffix. The suffix *-la* has survived as an impositive suffix in Modern Korean and *-kola* is its allomorph. For example:

42a. Nimkum ha ala -sywosye
King know Mod(Impo)
'Know this, O King' (Yong 107)

42b. Nay pwoacye honota -sols -assye
I would like Acc Mod(Impo)
'Please tell him I'd like to see him' (Sek 6: 14b)

42c. Pantaki al -la
properly know Mod(Impo)
'I urge you to understand properly' (Pak sang 10)

⁵¹ See IV.3.1. for its criteria.

42d. Twolwo wona -*la*

return come Mod(Impo)

'Come back'

(Welin 7:7b)

Further examples are found in Nokeltay sang 68a-9 and 49a-8.

V.5.1.1.2. Prohibitives

The prohibitive suffixes are found to impose the speaker's prohibition of proposition to the hearer. They are only realized as negative forms and the Admoniter *-ci/ti-* precedes prohibitives. *-ma.la*, *-mal.o* and *-ma.so* are its variants. For example:

43a. Ney adul -ul nay ti ci -*mal.la*

my son Acc throw away Adn Mod(Prh) Fin

'I forbid you to throw away my son'

(Welin: 2)

43b. Kwot mal.*wol.ti.la*

soon Mod(Prh)

'He says we will stop now'

(Welin: 224a)

Further examples are shown in Nung 6: 42a and Pep 1:9a: 15a.

The suffixes *-maso* and *-ma* survive in Modern Korean.

V.5.1.1.3. Compulsives

The compulsive suffixes are used as a weak impositive to impose the speaker's proposition to the hearer in the plain and the high speech levels.

Plain level: *-kwala*, *-kola/ola*, *-eyila*, *-yesala*, *-zahalila*, *-lcieta*

High level: *-syose*. The following changes are found : *-kala* -> *-kela*, *-ula* -> *-a*,

-syose -> *-sose*.

Among them, *-kela*, *-ula*, *-a*, *-sose* and *-lcieta* survive in Modern Korean. For example:

44. Kothye seywu -la
 rectify erect Mod(Comp)
 'Rectify and re-erect'

(the Thongto-sa Temple Stone Statue, 1080 A.D.)

V.5.1.1.4. Advisories

The advisory suffixes *-cey*, *-sala*, *-sola*, *-kola*, *-sheyla*, *-isheila* and *-nosta* were used to impose the speaker's probable proposition to the hearer in plain speech level. This strong type of Propositive frequently occurred in this period which shows that seniority was rigidly exercised in the class conscious society of the Middle Korean period. For example:

45a. Nimha ala -isheila
 Darling understand Mod(Adv)
 'My darling, I advise you to understand me' (Welin: 15)

45b. Ta om -ey ppali ka -nosta
 all arrival since soon start Mod(Adv)
 'I know that they started soon after they all arrived' (Twu 11:30)

V.5.1.1.5. Requestives

The requestive suffixes *-sola*, *-sose*, *-sontye*, *-koita*, *-saita*, *-cila*, and *-ciye* were used to request the speaker's proposition to the hearer. For example:

46a. Nehitul -i Yelay -uy sintonglyek -ul tulu -sola
 You (pl.) Subj Yelay Gen occult Acc hear Mod(Req)
 'I request you to listen to the Yeorae's occult' (Welin 17:3b)

46b. Kunhyeng a wuli tolaka *-nosola*
 big brother Voc we return Mod(Req)
 'I advise you big brother that we return' (Nokel 72e)

Further examples are found in Nokeltay sang 53b-4, 26a-4, 49a-8. Nokeltay ha 72b-2 and Welin 7:2.

V.5.1.2. Volitive System.

V.5.1.2.1. Intentives

The intentive suffixes *-li*, *-lilasta*, *-woli*, *-kwaje*, *-cila*, *-ciita*, *-kota*, *-kola*, *-koce*, *-oce*, *-kosota*, *-ce*, *-tye*, and *-lasta* are found to express the speaker's intention of proposition. For example:

47a. Chengsan -ey sal *-ulilasta*
 blue mountain Dat live Mod(Int)
 'I intend to live in the blue mountain' (Siyong : 24)

47b. Nay icey pwunmyeng-hi ne to lye nil *-woli*
 I now clearly you to tell Mod(Int)
 'I will tell you clearly now' (Welin: 7 :1a)

47c. Nay kuluni gey sal *-koce*
 I therefore there live Mod(Int)
 'Therefore I want to live there' (Welin: 7: 1b)

Martin (1992:257) assumes that the intentive suffixes *-ulita* and *-ulika* consist of the prospective modifier *-l* + the copula *-i* + the assertive suffix *-ta* or attentive suffix *-ka*. Historically, these forms are contracted from polite structures *-uli*, *-ngi* + *-ta* and *-uli-* + *-ngis-* + *-ka*.

Among them, the suffixes *-li*, *-oli*, *-ciko*, *-ce*, *-koce*, *-ciko* have survived in Modern

Korean.

V.5.1.2.2. Promissives

The promissive suffixes *-ma* and *-uli* are found to express the speaker's promise.

For example:

48. Kkos cinun siceley tto ne -lul maspo *-ma*
flower falling time again you Acc meet Mod(Pro)

'I promiss you that I will see you again when flowers are out of bloom!'

(Twu cho: 15)

Both *-ma* and *-uli* have survived in Modern Korean, and a further example is found in No ha,16a-3.

V.5.2. Epistemic System⁵²

The modal suffixes expressing epistemic modality can be arranged in terms of degrees of the intensity of the speaker's propositional confidence.

V.5.2.1. Sub-systems of Certainty

V.5.2.1.1. Declaratives

In Korean, the declarative is indicated by modal suffixes. They express the speaker's categorical assertion of proposition in the plain speech level. *-ta*, *-la*, *-nota*, *-hakota*, *-iceta*, *-eni-*, *-nila*, *-tanila*, *-nanila*, *-syasta*, *-kesila*, *-kola*, *-tota*, *-keta*, *-lota*, *-hakosola*, etc. For example:

⁵² See IV.3.2. for their criteria.

49a. Posal. uy censayng uy wenswu i la
 your Gen former world Gen enemy Pre Mod(Dec)
 'I am certain that he is the enemy of your former world' (Welin: 10)

49b. Ta om ey ppali ga -nosta
 all arrival since soon start Mod(Dec)
 'I know that they started soon after they all had arrived' (Nung 2:7)

In 49a-b, the suffixes *-ta* and *-la* have survived in Modern Korean without change of meaning. Further examples are found in Nokeltay sang 1b-7, 24b-4, 30b-4, 31a-8, 42a-1, 50-1.

V.5.2.1.2. Assertives

The following suffixes are found in Middle Korean, and they express the speaker's assertion of the proposition in the plain speech level: *-ni*, *-nila*, *-tanila*, *-nanila*, *-syasta*, *-kesila*, *-kola*, *-tota*, *-keta*, *-la*, *-ta*, *-lota*, *-hakosola*, *-ntyē*, *-kweye*, *-tokona*, *-nosta*, *-nosota*, *-nosotota*, etc. For example:

50a. I salam -i popey -lul teylitolok ani aski -noso.ta
 This person Subj treasure Acc that extent not begrudge Mod(Ass)
 'This person does not begrudge treasures to that extent' (Sek 6: 25-6)

50b. Ciok -ey tulo -lilota
 hell Dat fall into Mod(Ass)
 'I assert that you will fall into hell' (Welin 2: 20)

50c. Kwulum kkin kalameynun talpich -i sulwu -ey ola -nostota
 cloudy river moonlight Subj pavilion on creep in Mod(Ass)
 'I see that the moonlight crept into the pavilion beside the cloudy river'
 (Twu cho 8:25)

Among them, *-ni*, *-nila*, *-kesila*, *-tota* (especially in archaic style), *-la*, *-ta* have survived in Modern Korean. Further examples are found in Nokeltay sang 12a-9, 19a, 46-7 and 46a-9.

V.5.2.1.3. Inference

The inferential suffixes *-keta*, *-kesta*, *-jela*, *-tala*, *-tela*, *-noni*, *-hanosota*, and *-lieta* are found in Middle Korean texts. For example:

51a. Nwukakceng -ey is -tela
 pavilion Dat exist Mod(Inf)
 'I infer that he is in the middle of the pavilion' (Sek 6,40)

51b. Celmunsalam -i culkimul sokkyel epsi po -kesta
 young men Subj enjoy premature see Mod(Inf)
 'Young men look immature if they enjoy themselves too much'
 (Twu cho 11:30)

Among them, *-kesta* and *-tela* have survived and *-noni* is substituted by *-nani* in the archaic style of Modern Korean.

V.5.2.1.4. Reportives

The following suffixes *-latela*, *-latala*, *-lahatasta*, *-lahatanila*, and *-lateita*, are found as Reportives in the plain speech levels. For example:

52. Paykman.ek. cwng -i ta alatulzapa ni -latela
 Countless people Top all understand say Mod(Rep)
 'I heard that all the hundreds of millions of people should understand it'
 (Sek 23:12)

Among them, only *-latela* and *-hatela* have survived in Modern Korean.

V.5.2. 2.0. Sub-systems of Uncertainty

V.5.2.2.1. Speculatives

The following suffixes are found to express uncertainty in both plain and high speech levels.

Plain level: *-lia*, *-ka*, and *-a*

High level: *-o*, and *-lio*.

For example:

53. Ciok -ey tulo -lia
hell Dat fall into Mod(Spec)
'I speculate that you will fall into hell' (Welin: 15)

All of the Speculatives have survived in Modern Korean.

V.5.2.2.2. Dubitatives

Dubitative suffixes are found to express the speaker's doubt in the plain and high speech levels:

Plain level: *-lani*, *-halya*, and *-niisko*

High level: *-lyenyo*, *-losonyo* and *-ulyo*

For example:

54. Nala taypyeng -halya
nation peaceful Mod(Du)
'I am doubtful about the peace of the nation' (Taymyeng :1)

Among them *-lani* has survived and *-halya* is substituted by *-hali*.

V.5.2.2.3. Interrogatives

Interrogative suffixes are assigned into the modal system in Middle Korean rather than into the mood system. The following suffixes are found to express the speaker's enquiry into proposition in the plain and high speech levels.

Plain level: *-niisko*, *-inko*, *-ka*, *-nye*, *-ni*, *-li* and *-nya*

High level: *-niiskoyo*, *-inkyoy*, *-kayo*, *-nyeyo*, *-niyo*, *-liyo* and *-nyayo*

For example:

55. Yenhwa -lul peli -la ha -si -nya

Yenhwa Acc Desert Im say Hon Mod(Intr)

'I ask you whether he told you to desert Yenhwa.' (Sek 11:31a)

Among them, *-ka*, *-ni*, *-hali*, and *-nya* have survived in Modern Korean.

V.6. A Text Analysis of Middle Korean

V.6.0 Introduction

This section is devoted to an analysis of a particular speaker's usage of the modal suffixes in a particular situation. The data is based on a text expressing the vivid life of a royal family in turmoil. It is taken from a narrative essay called '**Han Cwung Lok**' which shows the consistent style of one individual throughout the text.

V.6.1. About the Text

The writer of '**Han Cwung Lok**' (Reminiscences in Retirement) is the wife of Crown Prince Sado, the son of King Yengco, the twenty-first king of the Yi Dynasty. Her husband, the Crown Prince died an unnatural death at the age of twenty-eight. His death was cruel and tragic: by the order of his father, the King, he was locked inside a rice-chest without food or water and left in the blazing hot sun until he died of exhaustion.

This traumatic incident prompted the writer to write this emotive diary of

reminiscence. It is known as a political act wishing to testify for herself to persuade others of her testimony. She had to present causes and represent lives in accordance with the cultural norm of her time.

The text incorporates some peculiar characteristics:

- 1) the autobiographical
- 2) the testimonial writing style
- 3) the feminine mode
- 4) first person
- 5) non-fiction narratives.

Since she was born to a noble family her social class dialect was that of the aristocrats. The period in which she wrote extends from 1795 to 1805 A.D. when she retired from the court.

V.6.2. Method of Text Analysis

The text used for this study is a version published by Seycong Publishing Co (1970), Seoul. The text is written in Hankul. About 1,850 cases of modal suffixes were analysed according to the criteria laid down in this study (see IV.3. The Categories and Systems of the KMS).

V.6.3. Categories of the suffixes that appear in the text

The 1,850 occurrences of the modal suffixes in this text can be categorised as follows:

modal concepts	s u f f i x e s
epistemic uses	
declarative	<i>-ta, -la</i>
assertive	<i>-ni, ni.la, -no.la, -iyo</i>
presumptive	<i>-li, -keyss, -lya, -nya, -nyo, -te-</i>
interrogative	<i>-ka, -kka, -ko, -kko, -a, -o, -ta, -ni, -nola, -nyo</i>
deontic uses	
volitive	<i>-li, -keyss</i>
imperative	<i>-la, -a, -o</i>

Table 19. Modal suffixes appeared in the text

V.6.4. Summary of the text analysis

The results of the text analysis can be summarised as follows:

- 1) The forms and meanings of the modal suffixes used in the text are similar to those of the present day modal suffixes. However, a few of them ceased to be used in present-day Korean except in the archaic literary style. For example: *-nola*, *-nyo*, *-kko* and *-ta* (interrogative use).
- 2) The suffix *-keyss* has not yet established its function as a tense marker, which is regarded as one of the characteristics of Modern Korean. It indicates the speaker's presumption in 38 cases and it indicates volition in 6 cases.
- 3) The declarative suffix *-ta* is frequently used as an interrogative suffix.
- 4) Compound suffixes are frequently found, e.g. *-li + ya -> -lya*, *-ni + ya -> -nya*, *-ni + yo -> -nyo*, etc.
- 5) The suffix *-te* indicates the speaker's reminiscence of past incidents, and the past tense is denoted by *-ss*. For example:

56. Macun pang -ey iss -ess -tela
opposite room Dat stay past Mod
'I remember that (he) stayed at the opposite room'

- 6) The suffix *-li* occurs most frequently in the text. It indicates a) the speaker's doubt about a proposition supported by the co-occurring inquisitive adverbials; *mwues*, *wey*, *esci*, etc.
b) To express the speaker's presumption *-lya* is used as a contracted form of the compound suffix *-li + ya*. In most cases (402 cases out of 467 cases), it indicates both senses of presumptive and interrogative. This suffix is mainly used for tag questions, requesting the hearer's sympathy. It is followed by the honorific suffixes *-yo* or *-o*. Only in rare cases was the suffix *-li* used as a deontic modal in the text. The suffix *-lya* is used in the plain speech level; and *-nyo* in the high speech level.

- 7) The suffix *-nya* was used as a variant of *-lya* and occurs 29 times, whereas, *-nyo* occurs only 2 times. — twice ?
- 8) The suffix *-o* is used as 1) an honorific suffix and 2) interrogative suffix. In this case of polysemy, the suffixation rule (cf. Chapters III & V) can be a clue for the choice: It occupies place 5 as an interrogative suffix and place 6 as an honorific suffix.
- 9) A variant of the suffix *-ka* is *-kka*, which is used in interrogative sentences for the high and plain speech levels. It is preceded by the modal suffixes *-ni* and *-li*.
- 10) The interrogative suffixes *-ko/kko* denote question in the plain level. They are preceded by the adnominals *-n/l*, and co-occur with such adverbials as *ecci* 'how' and *ette* 'how'.
- 11) The suffix *-ni* is used as 1) assertive when it is preceded by *-na* 2) presumptive when preceded by *-ri* and 3) inference when preceded by *-ke*, respectively. It forms a compound suffix with *-a*: *-ni + -a -> -nya*.
- 12) The modal suffixes function mainly as epistemic modals, only in 66 cases out of 1850 are used as deontic modals. The reason seems to be that this essay was written in a reminiscent and narrative style after she retired.
- 13) The categorical assertive (declarative) suffix *-ta* was rarely used and what is more, it was frequently used as an interrogative suffix. This phenomenon is interesting because the majority of the declarative sentence final suffixes in the Modern texts are composed of *-ta*.
- 14) Three suffixes, *-keyss*, *-te* and *-li* are exclusively used for only modal senses.

V.7. Summary of chapter V

This diachronic study tracked down the traces of the evolution of the Korean modal suffixes and justifies the hypotheses that 1) such functionals as aspectual, tense and modal markers are developed from lexical items; 2) the epistemic use of the modal suffixes is an extension of the deontic sense; 3) One of the polysemous phenomena shown in the TAM system can be understood as a cognitive strategy to relate inferentially, as well as metaphorically, a real world to an epistemic world.

The chronological study of the data reveals that 1) the development of aspect and modality is followed by that of tense, and this sequence is parallel to that of aspect-

modality acquisition in a child's language ; 2) the numerous modal suffixes were on the way of simplification during Middle Korean period ; 3) There was some alteration of the word order from Middle Korean to Modern Korean ; 4) The Chinese word order was still used together with that of Korean during the middle Korean period, Lastly, the conceptual categories of the Middle Korean modal suffixes were established in the same criteria of the Modern Korean Modal suffixes.

Chapter VI. Conclusion

The polysemy of the KMS has been studied to enquire how this phenomenon came about and what its implications might be, and to establish a comprehensive picture of the KMS. Accordingly, this research emphasized the maximal specification approach to inquire into the nature of the network of semantic concepts. Thus, both inferential and metaphoric interpretations were used for the explanation of meaning extensions.

It also attempted a diachronic approach in the hope that it would help to track down the original meanings of the suffixes and justify the assumption that from the original or basic meaning peripheral meanings have been derived, and to trace the close interrelationships that exist between tense, aspect and modality systems.

The significance of this study is that it provides a more comprehensive framework for Korean modality than any available previous studies. It integrated theories of componentiality and prototypical meaning and also polysemy with grammaticalization. Some original contributions of this study can be summarized as follows:

- 1) The Korean modal suffixes are morphosyntactically obligatory while temporal and aspectual suffixes are optional. Thus, it can be generalized that Korean sentences without modality do not exist, although sentences without tense or aspect do.
- 2) The predicative nature of modals is best explained by post-final modal suffixes which have been developed from what were originally transitive verbs. Accordingly, the implicit speaker in a sentence can be taken for granted and it can be convincingly demonstrated when the suffixes appear co-referentially with the underlying subject.
- 3) The KMS have a strict suffixation rule and the respective positions clarify the ambiguities of deontic/epistemic, aspect/tense, and speaker honorifics/ hearer honorifics distinctions.
- 4) Two opposite semantic mechanisms - inference and metaphor - were found to be responsible for the polysemy of the KMS.
- 5) The TAM and MH phenomena - intercategorical functions - were noted as integrated systems of a tense / aspect / modality in pre-final suffixes and an honorifics / modality

in final suffixes.

6) The relation between deontic and epistemic sub-systems in the KMS is accounted for as an integrated process of the two devices - inferential/metaphorical extensions, and considerable parallelism between the epistemic and deontic sub-systems is found:

epistemic necessity is parallel to deontic obligation, and epistemic possibility is parallel to deontic permission. As a morphosyntactic realization of this parallelism, the KMS often have both epistemic and deontic senses.

7) The characteristics of the quasi-modal suffixes such as the phrasal and verbal modal suffixes are accounted for in conjunction with modal suffixes proper. Their marginal character helped us to limit and to clarify the fuzzy boundaries of the modal system.

8) The traces of the evolution of the Korean modal suffixes justify the hypothesis that such suffixes as aspectual, temporal and modal markers were developed from lexical items.

9) The diachronic data reveals that the development of aspect-modality precedes that of tense, and this sequence is parallel to that of aspect-modality acquisition in child language. The relation between the historical and ontogenetical sequences is striking.

10) Conceptual categories and systems in the KMS were established based on the criteria of the prototypical features of modality. However, it is not possible to make definitive statements but only some suggestions concerning the direction which further investigations of this part of the KMS might follow.

11) The numerous modal suffixes were on the way to simplification during the Middle Korean period.

12) An alteration of word order from Middle Korean to Modern Korean occurred and the Chinese word order was still in use together with that of Korean during the Middle Korean period.

In conclusion, I hope that the present study, in raising some questions as well as answering some, has revealed the necessity for a more systematic analysis of the KMS in order to explain the intricacies of a most interesting system.

The Korean Texts cited in Chronological Order

Abbreviation	Texts	Date
Yengil	Yengil Swuli Monument	503 A.D.
Tanyang	Tanyang Cekseng Monument	545 A.D.
Hayseng	Haysengka	592 A.D.
Tochen	Tochenswukwanumka	755 A.D.
Anmin	Anminka	765 A.D.
Ceymang	Ceymangmayka	765 A.D.
Cheyong	Cheyong-ga	875 A.D.
Changwen	Inscription of Changwensa Temple	939 A.D.
Cengtosa	Inscription of Cengtosa Temple Pagoda	1031 A.D.
Thongtosa	Thongtosa Tolcangsayng	1085 A.D.
Taymyeng	Taymyengyul Cickhay	1395 A.D.
Yong	Yongpiechenka	1445 A.D.
Enhay	Hwunmincengum Enhay	1446 A.D.
Wolin	Wolin Chengkangcikok	1448 A.D.
Twu	Twusi Enhay	1448 A.D.
Sek	Sekposangcel	1449 A.D.
Mong	MongsanHwasang Pepe	1468 A.D.
Kwanum	Kwanumka	1482 A.D.
Kumkang	Kumkangkyeng Samhwey	1482 A.D.
Pakthong	Pakthongsa Enhay	1517 A.D.
Nokel	Nokeltay Enhay	1517 A.D.
Hwunmong	Hwunmongcahwey	1527 A.D.
Siyong	Siyong hyangakpo	1530 A.D.
Hancwung	Hancwunglok	1805 A.D.
Oryun	Oryunhayngsilto	1859 A.D.
Myengseng	Myengsengkeyng Enhay	1883 A.D.

Notes on the Korean Texts Cited

Anminka: A Silla Hyangga about peaceful living written by Monk Chwungtam, appears in Samkwukyusa II.765 A.D.

Ceymangmayka: An obituary verse in Silla Hyangga style for the author's deceased sister written by Monk Wolmyung, appears in Samkwukyusa. V.765 A.D.

Cengtosa Temple Pagoda: An Inscription written in Itwu. 1031 A.D.

Changwensa Temple Pagoda: An Inscription written in Itwu.939 A.D.

Cheyongka: One of the well-known texts of the Silla Dynasty appears in Hyangga.879.

Hancwung Lok: A reminiscence of the traumatic death of Crown Prince Sado written by his wife.1795 A.D.

Haysengka: A Sylla Hyangga written by Monk Ywuchen, appears in Samkwukyusa V.592 A.D.

Tochenswukwanumka: A Silla Hyangga written by Huimyeng. 755 A.D.

Hwunmincengum Enhay: Hankul part of Hwunmincengum.1459 A.D.

Hunmongcahwey: Chwey Sey-cin's collection of Enhay versions of Chinese lessons which were used for the education of young people.1527 A.D.

Hyangga: Hyangga is a type of poetic creation in the Silla period. It is also found in a biographical record of a Buddhist monk in the Kokwulye period. They are recorded in Chinese characters, but in a different way known as Itwu.

Kwanumkyung Enhay:A translation of Diamond Sutra commissioned by the Queen Inswu. 1485 A.D.

Kumkangkyeng Samhwey: An Enhae version of three chapters of the Diamond Sutra commissioned by King Sejo.1482 A.D.

Mongsanhwasang pepe yaklok : A translation of Buddhist sermon written by a Mongolian Buddhist. It was translated by Shin mi of King Sejo period, Lee dynasty. 1468 A.D.

Myengseng kyeng Enhay : A sacred book of Kwansengkyo, a folk belief.

Nogeltay Enhay: An Enhae version of everyday dialogue between a Chinese merchant and a Korean counterpart translated by Chwey Sey-cin.1677 A.D.

Nungem: A Sutra of Buddhism written in the late Kolye period.

Oryunhayngsilto: A Collection of the achievements of 180 eminent persons who followed moral rules to govern the Five Human Relations (of master and servant, of father and son, of husband and wife, of brothers, and of friends), written by Pyungmo Lee. 1859 A.D.

Pakthongsa Enhay: An Enhay version of everyday dialogue between a Chinese merchant and his Korean counterpart. The Korean translation was carried out by Chwey Sey-cin (? - 1547), one of the leading experts in Chinese, who held many important government posts and was much concerned with Chinese education. 1677 A.D.

Pephwakyeng: A Buddhist sutra written in 15 century. 1415 A.D.

Samkanghayngsilto: An official record of faithful and loyal people documented in 1613 A.D.

Sekposangcel: A biography of Buddha written in prose style by Seyco. 1446 A.D.

Siyonghyangakpo: An anthology including 26 Korye-kayoes: Sekyung-pyulkok, Chungsan-pyulkok, Samokok, Ssanghwakok, etc. 1530 A.D.

Tanyang Cekseng Monument: A stone monument inscribed in Silla period Itwu, describing legal and taxation systems of the period. 545 A.D.

Taymyengyul Cickhay: A translation of the Chinese lay into Hankul. 1446 A.D.

Thongdosa Tolcamgsayng: A stone monument inscribed in Itwu, 1085 A.D.

Twusi Enhay: An Enhay version of poems by Twupo (712-770 A.D.) a poet of the Tang period. The translation was carried out by Yu Yun-kyem (1420-?) and Cho Wi (1454-1503), and is the first known work printed in movable type. 1481 A.D.

Welin Chenkangcikok: A biography of Buddha written by Mwuncong, Son of Seycong the Great. King Seycong very much appreciated the strict beauty of his son's work. 1447 A.D.

Welinseokbo: A combined version of Welinchenkangcikok and Sekposangcel. 1457 A.D.

Yengil Swuli Monument: A stone monument inscribed in Silla period Itwu, describing legal and taxation system of the period. 503 A.D.

Yongpiechenka: Songs of Dragons flying to heaven. The first literary work published

in the newly invented *Hankul*. From a linguistic point of view it is of extreme importance as it is almost unique. Authors of this work were the same scholars who invented *Hankul*. 1445 A.D.

Chronological Stages of Korean

Stages	Period	Text
Archaic	- 1103	<i>Kelimyusa</i>
Ancient	1104 – 1445	<i>Samkuksaki/Samkukyusa</i>
Early Middle	1446 – 1591	<i>Enmwun-phan</i>
Late Middle	1592 – 1813	<i>Enmwun-phan</i>
Modern	1814 – 1907	<i>Enmwun-ci</i>
Present	1908 -	<i>Tayhanmwuncen</i>

Table 21. Stages of Korean

References

- AKMAJIAN, A.(1969) "On deriving Cleft Sentences from Pseudo-Cleft Sentences",
Linguistic Inquiry 1:149-168.
- AKMAJIAN, STEELE, S. & WASOW, T. (1979) "The category of AUX in Universal
Grammar", *Linguistic Inquiry* 10: 1-64.
- AKSU-KOC, A.(1988) *The Acquisition of Aspect and Modality*, Cambridge: Cambridge
University Press.
- ANTINUCCI, F. & PARISI, D. (1971) "On English Modal Verbs", *Chicago Linguistic
Society* 7 (28-39). Chicago: University of Chicago.
- ANDERSON, J. (1971) "Some proposals concerning the modal verb" in English, in
Aitken et al.
- AUSTIN, J.L. (1962) *How to Do Things With Words*, Oxford: Clarendon Press.
- BAUER, L.(1983) *English Word-formation*, Cambridge: Cambridge University Press.
- BENNETT, D.C. (1975) *Spatial and Temporal Use of English Prepositions*, London:
Longman.
- BENNETT, D. C. (1990) "Componential Analysis, Prototype Theory and the Meaning
of English Prepositions" *Working paper* 1. SOAS. University of London.
- BICKERTON, D. (1991) "Development and Structures of Creole Languages", *Essays
in Honour of Derek Bickerton*. Ed. By Francis Byrne and Thomas Huebner.
Amsterdam: John Benjamins.
- BOUMA, M.(1975) "On Contrasting the Semantics of the Modal Auxiliaries of German
and English", *Lingua* 37: 313-339.
- BOYD, J. and THORNE, J. P.(1969) "The Semantics of Modal Verbs", *Journal of
Linguistics* 5, 57-74.
- BUTTERWORTH,C.E.(1983) *Aristotle's Categories and De Interpretatione*, Princeton:
Princeton University.
- BYBEE, J. L.(1985) *Morphology: A Study of the Relation Between Meaning and Form*,
Amsterdam: John Benjamins.
- BYBEE, J. L. & PAGLIUCA,W.(1994) "Cross-linguistic Comparison and the
Development of Grammatical Meaning". In Fisiak, J. (ed) *Historical
Semantics and Historical Word-formation*. Berlin: Mouton.

- BYBEE, J. L., PERKINS, M.R. & PAGLIUCA, W.(1994) *The Evolution of Grammar: Tense, Aspect, and Modality in the Language of the World*. Chicago and London: The University of Chicago Press.
- BYBEE, J. L.& FLEISCHMAN, S. (ed) (1995) *Modality in Grammar and Discourse*. John Benjamins: Amsterdam/ Philadelphia.
- BYNON, T. (1975) *Historical Linguistics*, Cambridge: Cambridge University Press.
- CHANG, S. J. (1996) *Korean*, London: John Benjamins Publishing Company.
- CHOI, D. J.(1995) "On the Historical Change of the Order of Pre-finals in Korean", *Enehak* 17:317-333, Seoul, The Linguistic Society of Korea.
- CHOI, H. B. (1937) *Wulimalpon* (Korean Grammar), Yeonheui Jeonmun Publisher.
- CHOI, H. B. (1957) *Wulimalpon* (Korean Grammar), Revised Edition, Seoul: Cengumsa.
- CHOI, N. H. (1988) "Kotae Kuke uy Ttaemaekimey taehayey (On the Old Korean Tense)", *Donguei Emwunloncip*. Busan: Donguei, University Press.
- CHOI, N. H. (1990) "Kotae Kuke Emi (The Sentence Finals in Old Korean)", *Hankul*, 208. Seoul: Hankulhakhwe.
- CHOI, S. J. (1995) "The Development of Epistemic Sentence-final Modal Forms and Functions in Korean Children", *Modality in Grammar and Discourse* (165-204). Ed. By Bybee & Fleischm, Amstertam/ Philadelphia: John Benjamins Publishing Company.
- CHOMSKY, N. (1957) *Syntactic Structure*. The Hague: Mouton.
- CHOMSKY, N. (1965) *Aspects of the Theory of Syntax*. Cambridge: Cambridge University Press.
- CHOMSKY, N. (1972) *Studies on Semantics in Generative Grammar*. The Hague, Mouton.
- CHUNG, H.W. (1994) "A Study of the Grammatical Function of Dependent Noun", *In Memory of Yu, C.K.*
- COATES, J. (1980) "Review of Palmer" (1979), *Lingua* 51, 337-46.
- COATES, J. (1983) *The Semitics of the Modal Auxiliaries*. London and Canberra: Croom Helm.
- COATES, J. (1989a) "Epistemic Modality and Spoken Discourse." *Transactions of Philological Society* 111-131.(1980) and Leech, G.

- COATES, J. (1989b) "The Meanings of the Modals in Modern British and American English", *York Papers in Linguistics* 8: 23-34
- COLEMAN, L. & KAY, P (1981) "Prototype Semantics: The English Verb Lie", *Language* 57, No.1: 26-44.
- COMRIE, B. (1985) *Tense*. Cambridge: Cambridge University Press.
- CRUSE, D. A. (1986) *Lexical Semantics*, Cambridge: Cambridge University Press.
- DIVER, W. (1977) "The Modal System of the English Verb". *Word* 20: 322-352.
- EHRMAN, M.(1966) *The meanings of the Modals in Present-Day English*. The Hague: Mouton.
- FAUCONNIER, G. (1985) *Pragmatic Scales and Logical Structures*, LI6: 353-375. Cambridge, Ma: MIT Press.
- FILLMORE, C. (1968) "The Case for Case", in *Universals in Linguistic Theory* ed. by Bach and Harms (1968: 1-18), New York: Holt, Rinehart and Winston.
- FILLMORE, C (1971) *Studies in Linguistic Semantics*. Ed by Fillmore. New York / London: Holt, Rinehart and Winston.
- GIVON, T. (1982) 'Evidentiality and Epistemic Space', *Studies in Linguistics* 6,1.
- GIVON, T. (1984) *Syntax: A Functional-typological introduction*, I & II. Amsterdam and Philadelphia: John Benjamins.
- GORDON, D. & LAKOFF, G. (1971) "Conversational Postulates" *Papers from the 7th Regional Meeting, Chicago Linguistic Society*, 63-84.
- GREENBAUM, S. & QUIRK, R. (1990) *A Student's Grammar of the English Language*. London: Longman.
- HALLIDAY, M.A.K. (1976) *System and Function in Language: Selected Papers*, ed. by Günter Kress, London: Oxford University Press.
- HALLIDAY, M.A.K. (1985) *An Introduction to Functional Grammar*. London: Arnold.
- HALLIDAY, M.A.K. (1994) *An Introduction to Functional Grammar*, 2nd edn. London: Arnold.
- HA, C. J. (1967) *Kwuke Sicey wa Sang Yenku*, Pyongyang: Kwahakyenkwuso.
- HARE, J. (1952) *The Language of Moral*. Oxford: Oxford University Press.
- HEINE, B., CLAUD, U & HUNNEMEYER, F. (1991) *Grammaticalization: A Conceptual Frame work*, Chicago & London: The University of Chicago Press.

- HEO, W. (1967) *15 seyki kwuke uy thongsacek Hapsenge* (Syntactic Compound Words in 15c Korean). Seoul: Dongbahngak-Sa.
- HEO, W. (1960/1968) *Pyocwun Mwonpep* (A Standard Korean Grammar), Seoul: Shinku mwunhwasa.
- HEO, W. (1975) *Wuli Yeys Mal Pon* (Old Korean) Seoul: Saym Mwonhwa Sa.
- HEO, W. (1987) *Kwuke Ttaymaykim uy Pyenchensa (A History of the Korean Tense Study)*. Seoul: Saym mwunhwasa.
- HEO, W. (1988) "The Ending Suffixes in 16C Korean", *Hankul* 201(7-56) Seoul: Hankulhakhwe.
- HERMEREN, L.(1978) *On Modality in English: A Study of the Semantics of the Modals*. Lund Studies in English 53, Lund, C.W.K.Gleerup.
- HIRST, W. & WEIL, J. (1982) "Acquisition of Epistemic and Deontic Meaning of Modals" *Journal of Child Language* 9: 659-66.
- HOEY, L. (1997) *Adverbs and Modality in English*. London and New York: Longman.
- HONG, K. M. (1946) *Chengum Paltalsa* (History of Korean) Seoul: Ulyumwunhwasa.
- HONG, K.M. (1957) *Itwu Yenku* (A Study of Idu) Seoul: Ulyumwunhwasa.
- HOPPER, P. J. (1982) *Typological Studies in Language*. Amsterdam and Philadelphia: John Benjamins.
- HOPPER, P. J. & TRAUGOTT, E. C. (1993) *Grammaticalization*, Cambridge: Cambridge University Press.
- JACKENDOFF, G. (1972) *Semantic Interpretation in Generative Grammar*, Cambridge: Mass., MIT Press.
- JANG, G. H. (1985) *A Study of Category of Modality in Modern Korean*. ph.D dissertation. Seoul National University.
- JANG, G. H. (1986) "Polysemy and Interpretation" *Linguistics in the Morning Calm 2* Selected Papers from *SICOL* 1986 Ed by The Linguistic Society of Korea (279-292).
- JESPERSEN, O. (1909-49) *A Modern English Grammar*, I-VII. London: Allen & Unwin.
- JESPERSEN, O. (1924) *The philosophy of grammar*. London: Allen & Unwin.
- JOEHNNESEN, N. L. (1976) *The English Modal Auxiliaries, a stratificational account*, Stockholm: Almqvist & Wiksell International.

- JOHNSON, M. Y. (1994) *Japanese modality- A Study of Modal Auxiliaries, Conditionals, and Aspectual Categories* Ph.D. dissertation. University of Minnesota.
- JOO, S. K. (1910) *Kwuke Mwonpep* (Korean Grammar). Yektay Hankwuk Mwonpeptaykey. Seoul: Thap Publisher.
- JOOS, M. (1964) *The English Verb: Form and Meanings*. Madison and Milwaukee: The University of Wisconsin Press.
- GANG, E. K. (1992) *Chosen Cepmisa uy Thongsicek Yenkwu* (A Diachronic Study of Korean Suffixes), Seoul: Sekwang Haksulcalyosa.
- KIM, C. G. (1980) "The Meaning of Korean Temporal Morpheme *-te*" *Hankul* 169, Seoul: Hankulhakhwe.
- KIM, H. J. (1996) *Hankwuke uy Yeksacek kochal* (The History of Korean). Seoul: Sejong Publisher.
- KIM, S. D. (1974) *Hankukeuy Sisang (Aspect and Tense in Korean)*, Hankul Yenkwuso.
- KIM, S. D. (1987) "A Historical Information on 'Completive & Continuative Aspect'" *Hankul*. 196 (155-174).
- KIM, W.C. (1980) *Hyangka Hayyokpep*, Seoul: Seoul Tayhakkyo culpanpwu,
- KIM, Y.H. (1994) *Cwungseye sacen* (Middle Korean Dictionary), Pyengyang: Hankwuk Mwonhwasa.
- KING, R. (1998) *Korean Linguistics*, New York: Cornell University Press.
- KING, R. & YEON, J. (2000) *Elementray Korean*, Boston: Tuttle Publishing.
- KIPARSY, P. and KIPARSKY, C. (1970) 'Fact'. In Bierwisch, M. and Heidolph, K. (eds) *Progress in Linguistics*. The Hague: Mouton.
- KO, Y. K. (1965) 'Hyentay Kwuke uy Sepep cheykyey Yenkwu (A Study of the Modern Korean Mood System)', *Kwukeyongwu* 15.
- KO, Y. K. (1974) *Kwuke Cepmisa Yenkwu* (A Study of the Korean Suffixes), Baykhap Publisher.
- KO, Y. K. (1981) *Cwungsey Kwuke uy Sisang kwa Sepep* (Tense, Aspect and Modality in Middle Korean), Seoul: Tap Publisher.
- KO, Y. K. (1986) *Sepepkwa Yangtay uy Sangkwankwankyey* (Relationship of Mood & Modality), Kukeohaksinyeongu, Tap Publisher.
- KO, Y. K. (1987) *Pyocwun Cwungsey Kwuke Mwonpep* (A Standard Grammar of

- Middle Korean). Seoul: Tap Publisher.
- KO, Y. K. (1995) *Word, Sentence and Text*. Seoul: Hankwuk Mwonhwa Sa.
- KOO, H.(1995) "The *-kwu*-class finals and evidentiality in Korean", *Enehak* 17:25-43, Seoul; The Linguistic Society of Korea.
- KRESS, G. (ed.) (1976) *Halliday: System and Function in Language*. London : Oxford University Press.
- KUCZAJ, J. S. (1977) "Old and New forms, old and new meanings: the form-function hypothesis revised", Paper presented at the meeting of *the Society for Research on Child Development*, New Orleans.
- KUCZAJ, J. S. (1983) *Language Acquisition*. New York: Springer-Verlage.
- KWON, J.I. (1998) *Hankwuke Mwonpep Sa* (The History of the Korean Grammar). Seoul: Pakkiceng (83-110).
- LAKOFF, G. (1980) and JOHNSON, M. Metaphors, *We Live by Metaphor*, Chicago and London: The University of Chicago Press.
- LAKOFF, G. (1987) *Women, Fire, and Dangerous Things: The Categories Reveal about the Mind*, Chicago: University of Chicago Press.
- LAKOFF, R. (1972a) "The Pragmatics of Modality", *Papers from the 8th Regional Meeting, Chicago Linguistic Society*, 229-46.
- LANGACKER, R. W. (1978) "The Form and Meaning of the English Auxiliary", *Language* 54: 853-882.
- LANGACKER, R. W. (1987,1991) *Foundations of Cognitive Grammar* I & II. Stanford: Stanford University Press.
- LANGACKER, R. W. (1991) *Concept, Image and Symbol: the Cognitive Basis of Grammar*. Berlin & New York: Mouton de Gruyta Cognitive Linguistics Research.
- LANGACKER, R. W. (1999) *Grammar and Conceptualisation*, Berlin & New York: Mouton de Gruyta Cognitive Linguistics Research.
- LEE, HANSOL.H. B. (1989) *Korean Grammar*, London: Oxford University Press.
- LEE, H. S. (1947) "Ttay uy Cotongsa-ey tayhan Kwan Kyen"(A view on Temporal Auxiliaries), *Chosen Ehak nonchong*.
- LEE, H.S. (1949) *Chotung Kwuke Mwonpep* (Elementary Korean Grammar). Yektay Hankwuk Mwonpeptaykey. Seoul: Tap Publisher.

- LEE, H. B. (1970) "On Negation in Korean", *Ehakyenkwu* 6-2.
- LEE, H.S. (1991) *Tense, Aspect, and Modality, A Pragmatic Analysis of Verbal Affixes in Korean from a Typological Perspective*. Ph.D. dissertation, University of California, Los Angeles.
- LEE, I.S. & RAMSEY, R. (2000) *The Korean Language*, State University of New York Press.
- LEE, J. M. (1973) *Abstract Syntax and Korean with Reference to English*, Ph.D. dissertation, Indiana University. Seoul: Pam Korea Book Corporation.
- LEE, K. D. (1993) *A Korean Grammar on Semantic-Pragmatic Principles*. Seoul: Hankwuk Mwonhwa sa.
- LEE, S. H. (1992) *The Syntax and Semantics of Serial Verb Constructions*. Ph.D. dissertation, University of Washington.
- LEE, S. N. (1961) *Cwungsey Kwuke Mwonpep* (A Grammar of Middle Korean), Seoul: Ulyu Mwonhwasa.
- LEE, S. N. (1981) *Cwungsey Kwuke Yenkwu* (A Study of Middle Korean), Seoul: Ilcokak
- LEE, S. W. (1973b) *A Historical Study on the Grammatical Structure of the Korean Language*, Seoul : Ilcogak.
- LEE, P. M. (1972) *Olyu heyngsil to Translation of Confuses Ethics*. Seoul: Wulimwunhwasa.
- LEECH, G. N. (1969) *Towards a Semantic Description of English*. London: Longman.
- LEECH, G. N. (1971) *Meaning and the English verb*. London: Longman.
- LEHMAN, C. (1982) *Thought on Grammaticalization: A Pragmatic Sketch*, Vol. I. Koeln: Universitat zu Koeln.
- LYONS, J. (1977) *Semantics I & II*. Cambridge: Cambridge University Press.
- MAGEE, B. (1973) *POPPER*. London: Fontana Modern Masters Series.
- MAGEE, B (1978) *Men of Ideas, Some Creators of Contemporary philosophy*, London: BBC Publication.
- MARTIN, S. E. (1992) *A Reference Grammar of Korean*. Rutland, Vermont : Tuttle.
- MCCAWLEY, J. D.(1971) "Tense and Time Reference in English," *Studies in Linguistic Semantics*, Ed. By C.Fillmore and Langendoen (96-113) New York: Holt, Rinehart and Winston.

- NA, J. S. (1970) *Wulimal uy Ttay maykim Yenkwu* (A Study of the Korean Tense).
Seoul: Kwanhak-Sa.
- NAM, K. S. (1972) 'Hyentay Kwuke Siceye Kwanhan Mwuncey' (A Problem of the
Korean Tense), *Kwukmwunhak*.
- NAM, P.H. (2000) *Itwu Yenkwu* (A Study of Itwu), Seoul: Tayhaksa.
- NORVING, P. and LAKOFF, G. (1987) "Taking: A Study in Lexical network theory."
Berkeley Linguistics Society 13:195-206.
- PALMER, F. R. (1965) *A Linguistic Study of the English Verb*. London: Longman.
- PALMER, F. R. (1974) *The English Verb*, London: Longman.
- PALMER, F. R. (1976/1990) *Semantics*, Cambridge: Cambridge University Press.
- PALMER, F. R. (1977) "Modals and Actuality: A Reply", *Journal of Linguistics* 13,1-
23.
- PALMER, F. R.(1978) 'Past Tense Transportation' *Journal of Linguistics* 14, 77-81.
- PALMER, F. R. (1979a) *Modality and the English Modals*, London: Longman.
- PALMER, F. R. (1979b) 'Why Auxiliaries are not Main Verbs', *Lingua* 47,1-25.
- PALMER, F. R. (1979c) 'Non-assertion and Modality' in Allerton et al.(1979:185-95)
- PALMER, F. R (1979-1990) *Modality and the English Modals*, London: Longman.
- PALMER, F. R (1986) *Mood and Modality*, Cambridge: Cambridge University Press.
- PARK, B. C. (1968) *Korye Hyangka Yenkwu* (A Study on Songs and Ballads of Kolye
Period), Seoul: Seomyeong Munhwasa.
- PARK, S. B. (1935) *Chosen Ehak* (Korean Linguistics), Chosen Ehak Hwey.
- PERKINS, M. R. (1983) *Modal Expressions in English*, London: Frances Pinter.
- PIAGET, J. (1969) 'The Language and Thought of the Child', *Studies in Cognitive
Development: Essays in honour of Jean Piaget* Ed. By David Elkind, New
York: Oxford University Press .
- POPPER, K. R.(1962) *Conjectures and Refutations -The Growth of Scientific
Knowledge*, London and Henley: Routledge and Kegan Paul.
- QUILLEN, K. (1986) "Propositional Attitudes and Psychological Explanation", *Mind &
Language* Vol.1. No.2 Summer.
- QUIRK, R., GREENBAUM, S., LEECH, G. and SVARTVIK, J. (1985) *A
Comprehensive Grammar of English Language*, London and New York:
Longman.

- RAMSTEDT, G. J. (1949) *Studies in Korean Etymology*, Helsinki: Suomalais-Ugrilainen Seura.
- RAVIN, Y & LEACOCK, C. (2000) *Polysemy: Theoretical Computational Approach*, Oxford: Oxford University Press.
- RESCHER, N. (1968) *Topics in Philosophical Logic*. Dordrecht : Reidel.
- ROSEN, S. (1974) *A Study on Tones and Tone Markers in Middle Korean*, Stockholm.
- RYU, C.G. (1959) *Kwukehaksa (A History of the Korean Study)*, Seoul: Yengmwunsa.
- SANDNESS, K. E. (1982) *The Evolution of the Japanese Past & Perfective in the Gamakura and Muromati Period*. Ph.D dissertation, Yale University.
- SEARLE, J. R. (1979) *Expression and Meaning* Cambridge: Cambridge University Press.
- SEARLE, J. R. (1983) *Intentionality: An Essay in the Philosophy of Mind*. Cambridge: Cambridge University Press.
- SEO, J.K. (1986) “-Cye in Hyangka & ‘-Ci’ in Kolye Dialect”, *Hankul* 193. Seoul: Hankulhakhwe.
- SEO, J. S. (1977b) “On -keyss-“, *Mal (Language)* 2.
- SEO, J.S. (1994) *Korean Grammar*. Seoul: Ppwuli-kipun namwu.
- SEO, T. Y. (1988) *Kwuke hwallyong emi uy hyengtyewa uymi (Form and Meaning of the Korean Suffixes)*, Kwukehakhwe, Seoul: Thap Publisher.
- SEONG, K. C. (1974) “Kyenghem hyengthay -ess ey kwanhay”, *Mwunpepyenkwu* 1.
- SHIBADANI, M.& BYNON, T. ed. (1995) *Approaches to Language Typology*, Oxford: Clarendon Press.
- SHIN, C. S. (1972) “Hyentay Hankwukeuy Yongen pocoekan -keyss uy uymiwa Yongpep (The Meaning and Use of the Modern Korean Auxiliary -keyss)”, *Kwuke Yunku* 7: 7.
- SHIN, C. S.(1976) “Kwuke Cosa Yenkwu (A Study of the Korean Auxiliaries)”, *Kwuke Kwukmwunhak* 71:1-41.
- SHIN, S.O. (1988) *Tense and Aspect in Korean*, Doctoral dissertation, University of Hawaii.
- SHOPEN, T. (1985) *Language Typology and Syntactic Description*, Cambridge: Cambridge University Press (241-250).
- SOHN, H. M. (1975b) “Modals and Speaker-Hearer Perspectives in Korean”, *Papers in*

Linguistics 7, 3/4:493-520.

SOHN, H. M. (1976) "Semantics of Compound Verbs in Korean" *End* 1: 142-150.

SOHN, H. M. (1986) *Linguistic Expedition*, Seoul: Hanshin Publishing Co.

SOHN, H. M. (1994) *Korean*. London: Routledge.

SOHN, S. O. (1995) *Tense and Aspect in Korean. Centre for Korean Studies*,
Monograph No 18. Hawaii.

SONG, J. M. (1997) *Tense, Aspect and Modality*. Doctoral dissertaion, University of
London.

SONG, S. J. (1988) *Explorations in Korean Syntax and Semantics*, Institute of East
Asian Studies, University of California, Berkeley.

STUBBS, M. (1996) *Text and Corpus Analysis*, Oxford: Basil Blackwell.

SWEETSER, E. E. (1982) "Root and Epistemic Modality: Causality in two Worlds",
Berkley Linguistic Society Papers 8, 484-507.

SWEETSER, E. E. (1984b) *Semantic Structure and Semantic Change: A Cognitive
Linguistic Study of Modality, Perception, Speech Acts, and Logical
Relations*. Doctoral dissertaion, University of California, Berkeley.

SWEETSER, E. E. (1990) *From Etymology to Pragmatics, Metaphorical and Cultural
Aspects of Semantic Structure*, Cambridge: Cambridge University Press.

TAKEUCHI, L. (1987) *A Study of Classical Japanese Tense and Aspect*, Copenhagen:
Akademisk Forlag.

TALMY, L. (1983) *How Language Structures Space*, Berkley: Plenum Press.

TALMY, L. (1988) 'Force Dynamic in Language and Cognition,' *Cognitive Science* 12:
49-100.

TAYLOR, J. R. (1995) *Linguistic Categorization: Prototypes in Linguistic Theory*,
Oxford: Clarendon Press.

TRAUGOTT, E. (1972) *The History of English Syntax: A Transformational Approach
to the History of English Sentence Structure*, New York: Holt, Rinehart and
Winston.

TRAUGOTT, E. (1982) 'From Propositional to Textual and Expressive Meanings: Some
Semantic-Pragmatic Aspects of Grammaticalization,' In Leheman, W. and
Malkiel, Y. (eds) *Perspectives on Historical Linguistics*, 245-271.
Amsterdam: Benjamins.

- TRAUGOTT, E. (1986) "From Polysemy to Internal Reconstruction", *BLS* 12: 539-550.
- TRAUGOTT, E. (1989) "On the Rise of Epistemic Meanings in English: An Example of Subjectification in Semantic Change", *Language* 65: 31-55.
- TRAUGOTT, E. and HEINE, B. (1991) *Approach to Grammaticalization*, Amsterdam: John Benjamins.
- TURNER, J. (1987) *Cognitive Development*, London: Methuen.
- UM, J. H. (1990) *Kwuke Cotongsa Yenkwu (A Study on the Construction of the Sentential Ending & Auxiliary Verb Synthesis)*, Doctoral dissertation, Sengkyunkwan University.
- VON WRIGHT (1951) *An Essay in Modal Logic*, Amsterdam: North Holland.
- WALTON, M. (1993) *Modality in English*, Doctoral dissertation, University of London.
- WIDDOWSON, H. (1984) *Explorations in Applied Linguistics*, Oxford: Oxford University Press.
- WILSON, D. & SPERBER, D. (1988) 'Mood and the Analysis of Non-Declarative Sentences.' Taney, J., Moravczik, and Taylor, C. (eds.) *Human Agency: Language, Duty and Value* (pp.77-101), Stanford : Stanford University Press.
- WOISETSCHLAEGER, E.F. (1985) *A Semantic Theory of the English Auxiliary System*, New York & London: Garland Publishing, Inc.(107-123).
- YANG, I. S.(1971) "Double Modality in Korean", *Language Research* 7.1:23-36.
- YANG, I. S (1972) *Korean Syntax: Case Markers, Delimiters, Complementation, and Relativization*, Ph.D dissertation, University of Hawaii, Seoul: Paekhap-Sa.
- YEON, J. H. (1995) 'Analysis and Explanation in Functional-Typological Approach,' *Enehak* 17: 203-229, Seoul: The Linguistic Society of Korea.
- YIM, H.B. (1980b) "-keyss kwa taysangseng (-keyss and Reference)", *Hankul* 170.
- YIM, H.B. (1982) "Senemal -te- wa Tancel uy Yangsang (Pre-final -te- and Modality of Discontinuation)", *Kwanakemwun yenkwu* 7.
- YIM, H.B. (1998) *Kwukemwunpepuy simchung*, Seoul: Thayhaksa.
- YU, C.D. (1964) *Middle Korean Dictionary (A Deep Grammar of Korean)*, Seoul:Yeonse University Press.

