Optional Affix Hosting in Korean Coordinate Structures
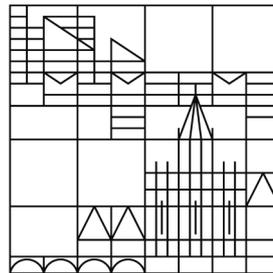
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To the memory of Anna and Irina,

who could go much further and do so much more

Contents

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Notational conventions

1. Korean employs a unique indigenous writing system called *Hankul* ([hangɨl]). To transliterate examples given in Korean, the Yale system of romanization is used in this dissertation.

Table i. Romanization system: consonants

(Sohn 1999: 2-3)

Hankul letters	Yale transliteration	Phonetic value in IPA
ㄱ	*k*	[k, g]
ㄲ	*kk*	[kʼ]
ㄴ	*n*	[n, ɲ]
ㄷ	*t*	[t, d]
ㄸ	*tt*	[tʼ]
ㄹ	*l*	[l, ɾ]
ㅁ	*m*	[m]
ㅂ	*p*	[p, b]
ㅃ	*pp*	[pʼ]
ㅅ	*s*	[s, ʃ]
ㅆ	*ss*	[sʼ, ʃʼ]
ㅇ	*ng*	[ŋ]
ㅈ	*c*	[c, ɟ]
ㅉ	*cc*	[cʼ]
ㅊ	*ch*	[ch]
ㅋ	*kh*	[kh]
ㅌ	*th*	[th]
ㅍ	*ph*	[ph]
ㅎ	*h*	[h]

Table ii. Romanization system: vowels and diphthongs

(Sohn 1999: 3)

Hankul letters	Yale transliteration	Phonetic value in IPA
ㅏ	*a*	[a]
ㅐ	*ay*	[ɛ]
ㅑ	*ya*	[ja]
ㅒ	*yay*	[jɛ]
ㅓ	*e*	[ə]
ㅔ	*ey*	[e]
ㅕ	*ye*	[jə]
ㅖ	*yey*	[je]
ㅗ	*o*	[o]
ㅘ	*wa*	[wa]
ㅙ	*way*	[wɛ]
ㅚ	*oy*	[Ø, we]
ㅛ	*yo*	[jo]
ㅜ	*wu*	[u]
ㅝ	*we*	[wə]
ㅞ	*wey*	[we]
ㅟ	*wi*	[y, wi]
ㅠ	*y(w)u*	[ju]
ㅡ	*u*	[ɨ]
ㅢ	*uy*	[ɨ(j), i, e]
ㅣ	*i*	[i]

2. As far as is reasonably practicable, the conventions followed are those given in *The Leipzig Glossing Rules 2008.*

3. List of abbreviations used in glosses

1	first person
2	second person
3	third person
ABL	ablative case
ACC	accusative case
ADV	adverb
ADN	adnominal (attributive) form
AOR	aorist marker
APRX	approximative particle
CAUS	causative voice
CAUSAL	causal converb
COM	comitative case
COND	conditional converb
CONN	connective case
COP	copula
CVB	converb
DAT	dative case
DECL	declarative mood
EMP	emphasizing particle
EST	estimative modality
FEM	feminine gender
FOC	focus
FORM	formal speech level
FUT	future tense
GEN	genitive case
GOAL	goal case

HT	honorific title
IMP	imperative mood
IND	indicative mood
INS	instrumental
INTIM	intimate speech style
IRR	irrealis mood
LEM	lemma (dictionary form)
LINK	linker
LOC	locative case
MASC	masculine gender
MOD	modal suffix
NEG	negation
NEUT	neuter gender
NMLZ	nominalizer
NOM	nominative case
OBL	oblique case
PAST	past tense
PASS	passive voice
PL	plural
PLAIN	plain speech level
POL	polite speech level
POSS	possessive (personal agreement) marker
PRES	present tense
PRF	perfect aspect
PROP	propositive mood
REL	relativizer
QU	interrogative mood
QUOT	quotative particle
SG	singular
SH	subject honorific suffix
SIM	converb of simultaneity

SUF	suffix
TOP	topic marker
TRANSF	transferentive converb
VOC	vocative case

Zusammenfassung (abstract in German)

Die vorliegende Dissertation beschäftigt sich mit der Optionalität von Affixen, hauptsächlich mit der optionalen Flexion in koordinierten Strukturen des Koreanischen. Im Vergleich zu derivationellen Kategorien, die fakultativ vorkommen dürfen, wurden flektive Kategorien traditionell als obligatorisch betrachtet. Vermutlich aus diesem Grund wurde Optionalität bei der Flexion in den allgemeinen syntaktischen Theorien, wenn nicht komplett ignoriert, nur am Rande behandelt. Das Hauptziel der wenigen Arbeiten, die das Thema erforschten, war nicht, die Optionalitätsnatur zu erklären, sondern sie lediglich im Rahmen der entsprechenden Theorie darzustellen. Eine sehr wichtige und negative Rolle spielte auch, dass die Problematik sehr häufig ohne präzise Begriffe behandelt wurde, wobei man Optionalität nur intuitiv (und demzufolge manchmal sehr unterschiedlich) verstanden hat. Aus diesem Punkt sind die agglutinierenden Sprachen von besonderer Bedeutung für die linguistische Theorie. Sie sind bekannt für ihre Fähigkeit morpho-syntaktische Eigenschaften nicht obligatorisch zu markieren sondern entsprechende Suffixe nur optional anzuhängen. Die bisherigen Bezeichnungen der Optionalität bei agglutinierender Affigierung waren aber viel zu deskriptiv und bezogen sich meistens auf Markierung der Einzelwörter.

Der Schwerpunkt meiner Arbeit liegt demgemäß auf das Phänomen, das ich 'optional affix hosting' (d.h. 'optionale Affixaufnahme') genannt habe. Unter dem Begriff, den ich im Kapitel 1 einführe, verstehe ich alle Fälle, bei denen eine freie Wahl mit zwei regulären Optionen besteht, den Stamm (oder die Wurzel) eines Elements der Koordination entweder mit Affix zu markieren oder unmarkiert zu lassen, wenn das zweite Element schon identisch affigiert. Solch eine Lesart des Begriffs setzt folgende Parameter der *optional affix hosting* (OAH) voraus. Die erste Voraussetzung der OAH ist 'echte' *Optionalität*. 'Echte' Optionalität bedeutet, dass man angehängte Affixe jederzeit auslassen und ausgelassene Affixe jederzeit wiederherstellen kann. D.h. alle Fälle von obligatorischer Markierung sowie von obligatorischer Nichtmarkierung gelten nicht als OAH. Der zweite OAH-Kennwert ist '*Affigierung*', die nur Affixe in Betracht zieht, während alle Einheiten unter oder über dieser Ebene (z.B. lexikalische Einheiten

wie Stämme oder Wurzeln sowie phonetische Einheiten wie Silben) aus unserer Behandlung ausgeschlossen sind. Die nächste Voraussetzung ('*Regularität*') nimmt als gegeben an, dass Optionalität kein artikulatorischer oder graphischer Zufall sein darf, sondern ganz regelmäßig stattfindet, sowohl in mündlicher als auch in schriftlicher Sprache. Eine weitere Bedingung der optionalen Affixaufnahme ('*Identität*') verlangt, dass OAH sich nur mit den Affixen befasst, deren Eigenschaften absolut identisch sind. Die fünfte und letzte Voraussetzung des OAH ('*Koordination*') spielt ebenfalls eine sehr wichtige Rolle. Unter dieser Bedingung behandelt OAH nur koordinierte Strukturen, wo Optionalität der Affigierung nur bei einem der zwei koordinierten Elemente des koordinierten Paars stattfindet. Nicht-koordinierte Wörter werden in meiner Dissertation nicht berücksichtigt.

Die genaue Definition des OAH als Werkzeug ermöglicht es, das Hauptziel meiner Arbeit zu erreichen. Da optionale Affixaufnahme kein automatischer Prozess ist, müssen wir herausfinden, welche koreanischen Affixe (verbale sowie nominale) unter welchen Bedingungen optionale Affixaufnahme erlauben. Darüber hinaus behandeln wir auch die Frage, was die Doppelmarkierung in Strukturen, bei denen Einfachmarkierung absolut ausreichend und grammatikalisch ist, motiviert.

Im Kapitel 2 wird zuerst Affigierungsoptionaliät in verbalen Koordinationsstrukturen des Koreanischen untersucht. Das Koordinationsmodel, das Koreanisch verwendet, kann man als 'chaining' (d.h. 'verkettend') bezeichnen. Im Koreanischen ist es nicht möglich, zwei finite Verben zu verbinden. Die pragmatische Bedeutung tragenden *Satzschlussendungen* müssen in nicht-finalen Mittelverben durch konjunktionale *Nebensatzendungen* obligatorisch ersetzt werden. Das bedeutet, dass Optionalität nur bei präfinalen Affixen zwischen Wurzel und Nebensatzendung zu suchen ist. Aber auch die präfinalen Affixe erlauben nicht immer Optionalität. Es wird gezeigt, dass die 'layered' (d.h. 'geschichtete'), funktional motivierte Affixstellung des koreanischen Verbs (die bei der Affixpositionierung und Affixfunktion sehr stark gebunden sind) einen Einfluss auf Optionalität hat. Das Hauptprinzip lautet: Je zentraler ein Affix steht, desto stabiler, fester und weniger trennbar ist es; je peripherer ein Affix ist, desto leichter wird das Affix weggelassen. Die gesamte Affixreihe wird demzufolge nach vier Zonen geteilt. Affixe von Zone A, die direkt an der Wurzel liegen, sind vom

funktionalen Punkt aus gesehen *lexikalisch* relevant und lassen sich nicht tilgen. Die *agensenorientierten* Affixe der Zone B sind optional trennbar und können auch im Subordinationsumfeld überleben. Die *sprecherorientierten* Affixe von Zone C sind optional trennbar im Koordinationsumfeld und obligatorisch auszulassen im Subordinationsumfeld. Schließlich beinhaltet Zone D die *sprechpartnerorientierten* Affixe, die in Hauptsätzen obligatorisch vorhanden zu sein und in Nebensätzen obligatorisch mit Konjunktionalendungen zu ersetzen sind. Mit anderen Worten, verbales OAH bezieht sich nur auf agenten- und sprecherorientierte Affixe (Honorifiksuffix *-si*, Präteritumssuffix *-ass/-ess* und Modalsuffix *-keyss*), die sich nicht zu zentral aber gleichzeitig nicht zu weit entfernt von der Wurzel befinden.

Der Ansatz, der behauptet, dass nicht nur (morpho-) phonologische Eigenschaften der suffixaufnehmenden Stämme (bzw. der suffixaufnehmenden Wurzeln), sondern funktionale Rollen der Affixe selber OAH beeinflussen, wird in Kapitel 3 auf Flexion in nominalen Koordinationsstrukturen ausgeweitet. Im Gegensatz zu der europäischen Koordination vom '*und*'-Typ zeigen zusammengesetzte koreanische Nomina eine viel engere und stärkere Kohäsion des '*mit*'-Typs, bei der das erste Nomen immer dem zweiten durch den Konnektivkasus nachgeordnet ist. Ein solches hierarchisches Verbindungsmodel begrenzt Optionalität deutlich. Das sieht *per definitionem* vor, dass nicht jede Art der Flexion im Mittelnomen erscheinen darf. Obwohl nicht alle nominalen Affixe zusammen mit anderen stehen können und keine klare, vollbesetzte Affixreihe darstellen, demonstrieren empirische Daten, dass unterschiedliche nominale Affixe durch unterschiedlichen Grammatikalitätsgrad sich auch anordnen lassen und dass Neigung zur Optionalität (genauso wie bei Verben) mit der Affixplatzierung in dem funktional-motiviertem Flexionskontinuum gebunden ist. Wenn ein Affix sich auf eine *lexikalisch*-relevante Kategorie (wie Belebtheit oder Numerus) bezieht, ist Optionalität seiner Markierung im ersten Nomen grundsätzlich erlaubt. Pure *syntaktische* (Subjekt, Objekt, Kopf/Dependens Beziehung) und *pragmatische* (sprechpartnerorientierte) Funktionen formieren die äußerste Kontinuumsperipherie, die sich außer der "Anziehungskraft" des lexikalischen Kerns befindet. Affixe von der Peripherie haben keine Chance in dem höchsthierarchischen Umfeld der koreanischen Nominalkonjunktion zu überleben. Affixe, die *semantische* Funktionen kodieren (z.B.

Instrument, Quelle, Ort, Richtung), besetzen die Mittelsektion des Kontinuums und verhalten sich im Bezug auf OAH widersprüchlich. Für einige Muttersprachler ist es immer noch akzeptabel, einem nachgeordneten ersten Nomen Affixe anzuhängen, für andere stellt es eine ungrammatische Konstruktion dar. Natürlich gibt es keine klaren Grenzen zwischen diesen vier Gebieten in dem funktionalen Kontinuum. Funktionale Affixeigenschaften werden graduell stärker oder schwächer, mit Grauzonen an den Schnittstellen.

Die in den Kapiteln 2 und 3 beobachteten OAH-Fälle decken auf, dass es im Koreanischen keine obligatorische Mittelflexion gibt. Auch wenn einige Affixe im ersten Element des Koordinationspaars auftauchen dürfen, ist es immer möglich, die Affixe jederzeit zu tilgen, ohne jedweden Grammatikalitätsverlust. Angesichts dieser Sachlage gilt es auch die Frage zu beantworten, was verdoppelte Markierung der gleichen Eigenschaften an beiden Koordinationselementen motiviert, wenn einmalige "Gruppenmarkierung" absolut ausreichend und grammatikalisch ist. Die vorangegangenen Forschungen der Flexionsoptionalität bei Einzelwörtern gehen davon aus, dass Übermarkierung nicht überflüssig ist und die Opposition "Markierung gegen Nichtmarkierung" durch einen unterschiedlichen Informationsstatus (d.h. pragmatisch) interpretiert werden soll. Kapitel 4 erweitert die Annahme auf koordinierte Strukturen. Die empirischen Ergebnisse bestätigen diese Hypothese und zeigen, dass optionale Affigierung des ersten Koordinationselements funktional motiviert ist. In verbalen &Ps dient 'mediale' Übermarkierung hauptsächlich als Werkzeug des Ergänzungsfokus ('*X und auch Y*'), während in nominalen &Ps Übermarkierung die Verteilung eines Einzelereignisses zwischen zwei Nomina ('*X und Y jeweils*') kodiert.

Kapitel 5 konzentriert sich auf sprachübergreifende Generalisierungen des OAH-Phänomens. Zum einen wird eine OAH-Typologie vorgeschlagen. Typologisch gesehen ist Optionalität koreanischer Art nicht die einzige, die man in den Sprachen der Welt beobachten kann. Im Türkischen zum Beispiel funktioniert Optionalität genau spiegelverkehrt. Es ist immer möglich, beide Konjunkte mit identischen Affixen zu markieren, während Affixsuspension eine Option ist, die von morphologishen sowie phonologischen Einschränkungen begrenzt wird. Mit Rücksicht auf zugrundeliegende Konzepte von *Default* (als Model, das keine Voraussetzungen braucht und immer

grammatikalisch ist) und *Option* (als Variante, die nur unter bestimmten Bedingungen erlaubt ist) führe ich die folgende Klassifikation des OAH ein. Wenn eine Sprache als Defaultmodel die "ikonische" Strategie wählt (d.h.Markierung an beiden koordinierten Elementen), dann kann man Optionalität als *optionales Affixauslassen* klassifizieren (Optionalität des A-Typs, oder suspendierte Affigierung). Wenn das Prinzip der "Sparsamkeit" als Default bevorzugt ist (d.h. Markierung nur eines der zwei koordinierten Elemente), dann kann man Optionalitätsfälle als *optionales Affixeinfügen* (Optionalität des B-Typs) bezeichnen. Der Begriff "optionale Affixaufnahme" ist demzufolge ein Überbegriff, der beide Optionalitätstypen beinhaltet. Die zweite Generalisierung bezieht sich auf die Frage, welches syntaktische Milieu am besten zu OAH passt. Bei Behandlung dieser Frage wird davon ausgegangen, dass Optionalität in Zusammenhang mit Verbindungsmodell und formaler Distanz zwischen Konjunkten steht. Für A-Optionalität (optionales Affixauslassen) ist die koordinative Umgebung mit kurzer Formaldistanz am günstigsten, für B-Optionalität hingegen die subordinative Umgebung mit langer Formaldistanz. Am Schluss meiner Arbeit werden solche strukturellen Aspekte des OAH diskutiert, wie beispielsweise Richtung und Ortsbestimmung. Es wird argumentiert, dass optionale Affixaufnahme immer *linear* vorgeht, nach dem Prinzip "der Kopf ist peripherieorientiert". Das Prinzip fordert, dass der Phrasenkopf immer am Rand bleibt (ganz rechts bei Suffixen und ganz links bei Präfixen), um die ganze Phrase in seinem Semantikfeld zu haben. Das ist der Grund, warum in endozentrischen Sprachen wie Koreanisch oder Türkisch (mit Suffixen als Hauptstrategie der Affigierung) Optionalität immer im ersten (linken) koordinierten Element zu erwarten ist, währed das zweite (rechte) Element Träger des obligatorischen Kopfs ist. Dasselbe Linearprinzip schreibt die Ordnung der optionalen Affixaufnahme vor. Wenn mehr als ein Suffix optional aufgenommen wird, geht *Affixauslassen* (Suspension) immer von der Peripherie zum Kern und *Affixeinfügen* immer vom Kern zur Peripherie.

Die vorliegende Doktorarbeit wirft daher einen neuen Blick auf das Phänomen der Affigierungsoptionalität in agglutinierenden Sprachen. Der Begriff "Optionalität", die vorher nur intuitiv verstanden wurde, hat durch die Auflistung eigener Kennwerte eine genaue Definition bekommen. Ein unifizierter Ansatz, der optionale Affixaufnahme

sowohl in verbalen als auch in nominalen koordinierten (zusammengesetzten) Strukturen funktional interpretiert, wird vorgestellt. Durch die empirischen Daten des graduellen Grammatikalitätsbeurteilungstests präsentiert der Ansatz, dass es nicht nur keine bestimmten Grenzen zwischen lexikalischen, derivationellen und flektiven Einheiten gibt, sondern Flexion selbst ein Kontinuum darstellt, in dem unterschiedliche Flexionsstüke unterschiedliche Neigung zur Optionalität in koordinierten Strukturen demonstrieren. Darüber hinaus zeigt die funktionale Analyse, warum Sprachen nicht im Rahmen der obligatorischen Vorschriften und Beschränkungen bleiben. Optionalität bleibt in den Sprachen der Welt ein Instrument für pragmatische Informationen.

Abstract

Optionality in specification of morpho-syntactic properties is considered one of the most prominent characteristics of agglutinative languages. As a canonically agglutinative language, Korean also enjoys optionality in the marking of single words. In coordinate structures, however, the agglutinative affixation exhibits much less freedom: due to its highly hierarchical, strictly head-final nature, Korean syntax demonstrates a strong tendency towards obligatory affix dropping from non-final conjuncts, while optionality of marking is a restricted phenomenon, not yet described in sufficient detail. Optional phenomena belong to a specific area of linguistics that is not very favoured by modern theoretic frameworks, which tend to represent languages through a rigid binary system of prescribing rules and prohibiting constraints, whereas optionality is considered as a problematic and unwelcome exception lying outside the core grammar. Focusing on peculiarities of Korean inflection in coordinate structures, I introduce and explore the phenomenon of *optional affix hosting* (OAH), under which I understand all cases that offer two regular options: to either affix or not affix the hosting stem/root of one conjunct, if the second one is already affixed identically. The main questions discussed in my dissertation are as follows: If optionality is not an automatic process (i.e. allowed for all items all the time), what is the inner mechanism of OAH? Why do languages preserve an option to specify the same property twice, if they do not have to? Are there any cross-linguistically valid generalizations which can be made about OAH?

Optional hosting of Korean verbal inflection is observed first. Comparing suffix slot structures of final and non-final predicates, I determine which affixes may optionally surface in both verbal conjuncts and under which conditions. It is shown that positionally and functionally more central inflectional affixes (i.e. those encoding subject honorification, perfect aspect or volitive modality) are less sensitive to the hierarchical nature of the 'chaining' (*à la* Longacre 1985) Korean verbal conjoining: they can survive in any environment, either coordinate or subordinate. More peripheral past tense marker and epistemic modality marker undergo obligatory omission from

medial predicates in subordinate clauses and can be expressed at the speaker's option only in a coordinate environment. The finite endings occupying the edge slot in the affix array must be dropped in both coordinate as well as subordinate non-final clauses.

The general concept claiming that not only the properties of hosting stems but rather the functional properties of affixes themselves are important for optionality is extended to nominal inflection. Though Korean nominal roots are free morphemes and do not form a clear affix template, it is still possible (on the base of a gradient grammaticality test) to build a functional continuum of Korean nominal inflection, and position in this continuum will determine affix behaviour with regard to optionality. Similarly to verbs, functionally more central nominal suffixes (encoding such lexical categories as number or animacy) tend to be more stable and may surface in non-final nominal conjuncts. The pragmatics- and syntax-related suffixes (i.e. nominative, accusative, genitive or vocative case markers) occupy the opposite edge of the continuum and have no chance to survive in medial nominal conjuncts. The semantics-related suffixes denoting place, time, source and instrument are located between these two poles and constitute a grey area of OAH: for some native speakers it is still possible to keep these affixes as 'inside' ones, for others – it is not.

Considering the fact that OAH in Korean is an option to mark the same morpho-syntactic property twice in both conjuncts (i.e. overspecification), this dissertation addresses the issue of what motivates double-marking in structures where single-marking is sufficient. It is argued that optionality in general and overspecification in particular do not always lead to redundancy: being a part of the information structure, double-marking in both nominal and verbal &P-s performs some functional duties. A survey of native speakers' opinions supports the view that overspecification in nominal &P emphasises the distribution of a single event between two nouns ('*X and Y each*'), while in verbal &P double marking is basically related to the additive reading ('*x and also y*').

When exploring optional phenomena, it is crucial to realize that optionality is not an automatic process: for some values in a paradigm it is allowed, and for others it is not. When optionality is allowed then one can use both strategies - marking or not-marking. But if optionality is not allowed, languages have to choose only one strategy (obligatory

marking or obligatory non-marking) and this strategy will be the default for the paradigm. In my study I assume that a model is default, if it needs no pre-conditions and is always grammatical, while an optional pattern is licensed only under some particular circumstances (or, put differently, is restricted by some constraints). From this definition of default and option it follows that two types of optionality can be suggested. The first type (A) is *optional affix omission* with affix marking as default and affix omission as option. Optionality of type A corresponds to the notion of 'suspended affixation' and can be observed in Turkish, where suffix dropping is not always licensed and, even when it is, any dropped suffix can be freely restored. The second type (B) of OAH is *optional affix insertion* with affix non-expression as default and affix insertion as option. This type of optionality can be found in Korean, where it is not always possible to suffix the first conjunct and, even when it is, any added suffix can be freely deleted. The notion *optional affix hosting* combines both types of optionality: optional affix omission and optional affix insertion.

With regard to the question of whether and how optionality can be predicted, we can assume that if the placing of a word into a coordinate structure immediately changes its inflectional (i.e syntactic) behaviour, then it is some syntactic parameters of coordination that are responsible for providing a favourable milieu for optionality/obligatoriness of (non)marking, in particular - formal distance and tightness of coordination (Haiman 1985, Wälchli 2005).

Finally, some generalizations on the structural principles of OAH are made. If we omit affixes from all but one element of coordination, then the affix remaining would assign the corresponding morpho-syntactic category not only to the single word it is attached to, but to all conjuncts. Structurally, this affix becomes a head of the whole construction and, in order to have all conjuncts in its semantic domain, it has to occupy one of the 'head positions' in the leftmost (for prefixes) or in the rightmost (for suffixes) periphery. Since head-final languages like Korean and Turkish predominantly employ suffixation as the main type of inflection, optionality in these languages applies only to the non-final (left) conjunct, while the final (right) conjunct has to host an unomittable head suffix. The structural principles of headedness should be respected not only for localization but also for the order of OAH. If a stem can optionally host more

than one affix, affix hosting proceeds in a linear order: omitting affixes, one drops more peripheral first and more central afterwards; attaching affixes, one adds more central first and more peripheral afterwards.

Thus, the dissertation argues that optionality of inflection in coordinate structures, formerly considered as a pure morpho-phonological phenomenon is indeed an interface of syntax and pragmatics. The exploration of the phenomenon of OAH can contribute to the theory of coordination as well as to the theory of ellipsis. Additionally, better understanding of OAH can shed light on relations between syntax and lexicon and help us to answer the question of how systems of inflection work in typologically different environments.

Chapter 1

Introduction

1.1 Definition of OAH

Loose bonding and optional marking of morphological categories are commonly considered as 'hallmarks of agglutination' (Plank 1999: 282). Being a canonically agglutinative language, Korean also has a tendency towards affix dropping when morpho-syntactic properties are predictable from the context, syntactic structure, word order etc. In (1), for instance, the accusative case marker -*ul* (-을) can be easily omitted from the direct object *chayk* (책) 'book' and the sentence would remain perfectly grammatical.

(1) [1a, 2a][1]
영수가 책(을) 읽는다.
Yengswu-ka chayk(-ul)   ilk-nunta
Yeongsoo-NOM   book(-ACC) read-DECL.PLAIN
'Yeong-soo reads the book.'

However, as soon as the same word with the same morpho-syntactic properties is put into a coordinate structure as a non-final conjunct (as in (2)), the optionality disappears and the case-marker -*ul* (-을) undergoes obligatory omission.

(2) [1b, 2b, 3a, 3b]
영수가 책(*을)과 신문을 읽는다.
  Yengswu-ka   chayk(-ul)-kwa   sinmwun-ul   ilk-nunta*
Yeongsoo-NOM   book(*ACC)-CONN newspaper-ACC   read-DECL.PLAIN
'Yeong-soo reads the book and the newspaper.'

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1 Numbers in square brackets refer to the number under which patterns appear in the native speakers survey (see Appendix C).

At the same time, there are some suffixes in Korean that do not follow this principle of obligatory withdrawing and can optionally surface in this position, e.g. the ablative (source) case marker *-eykeyse* (에게서) in (3):

(3) [7a, 8a, 9a, 9b, 16b, 18a, 19b]
그아이가 아버지(**에게서**)와 어머니에게서 선물을 받았다.

    *ku.ai-ka   apeci(-**eykeyse**)-wa emeni-eykeyse senmwul-ul   pat-ass-ta*

that.child-NOM father-(**ABL**)-CONN   mother-ABL   present-ACC   get-PAST-DECL.PLAIN

'The child got a present from father and mother'

Considering the peculiarities of Korean inflection in coordinate structures, in this dissertation I introduce the term *optional affix hosting* (OAH), under which I understand all cases that offer two regular options: to either affix or not to affix the hosting stem/root of one conjunct, if the second one is already affixed identically, e.g as in (4):

(4)

$$X_{(SUF)} \textbf{ and } Y_{SUF}$$

1.2 Parameters of OAH

In this section I address implications following from the definition of OAH as well as the question of how exactly this phenomenon differs from other cases of morphological (and non-morphological) ellipsis.

1.2.1 Optionality

The principal requirement of OAH is optionality in specification of morpho-syntactic properties in one of the conjuncts. Traditional theoretical frameworks have given little

favour to optional phenomena so far: they just point out the problem leaving it open (Halle & Marantz 1993: 126), or place it outside of the core grammar as 'unwelcome' or 'problematic' (Tesar & Smolensky on 'equally ranked constraints' (1998: 249)). Moreover, it seems that those rare investigators who do deal with optionality are mostly concerned not with the question of how to give an insight into the problem but rather how to represent this peripheral phenomenon in terms of the corresponding theory, usually coming up with two different structures: one for the full and one for the reduced inflection. For example, analysing distribution of tense in Korean coordinate structures from a traditional generative perspective, Yoon (1994) proposes that the conjoining of two untensed verbs instantiates V-coordination (Fig. 1a), that of two untensed verbs with different objects – VP-coordination (Fig. 1b), whereas the conjoining of two tensed verbs constitutes an IP-coordination (Fig. 1 c).

Figure 1. Tense distribution in Korean complex sentences
(Yoon 1994: 5-7)

a.

John-i	*pap-ul*	*cis-ko*	*mek-ess-ta*
John-NOM	rice-ACC	cook-CVB	eat-PAST-DECL.PLAIN

'John cooked and ate the rice.'

b.

```
                                    CP
                          IP                  C
                 VP*              I
          NP              VP
                     VP          VP
                  NP    V     NP    V
```

| *John-i* | *pap-ul* | *cis-ko* | *kwuk-ul* | *kkulhi-ess-ta* |
| John-NOM | rice-ACC | cook-CVB | soup-ACC | boil-PAST-DECL.PLAIN |

'John cooked the rice and made the soup.'

c.

```
                                        CP
                          IP                        C
              IP                    IP
        VP*         I         VP*         I
     NP      VP            NP      VP
          NP    V               NP    V
```

| *John-i* | *pap-ul* | *cis-ess-ko* | *Mary-ka* | *kwuk-ul* | *kkulhi-ess-ta* |
| John-NOM | rice-ACC | cook-PAST-CVB | Mary-NOM | soup-ACC | boil-PAST-DECL.PLAIN |

'John cooked the rice and Mary made the soup.'

The optionality of affixation, however, is not Yoon's main point of concern; the main goal of his study is to argue against the lexicalist approach to morphology (including checking theory) and to show that syntax 'builds' the inflection, rather than simply 'checking' it. The examples with optional affixation just serve this purpose but no full-scale investigation of this phenomenon is provided.

Keeping of affixes only in one conjunct with their scope spread over the whole coordination poses a serious problem for the principle of lexical integrity which claims that 'morphologically complex words are leaves of the c-structure tree and each leaf corresponds to one and only one c-structure node' (Bresnan 2001: 92). In order to interpret cases of affix omission in Turkish coordinate structures in terms of LFG-framework, Broadwell (2008) applies the concept of 'lexical sharing' that was originally elaborated by Wescoat (2002) for *portmanteau* words like *brunch* (breakfast + lunch), *smog* (smoke + fog), or *Konglish* (Korean + English). The lexical sharing model suggests that one lexical item can instantiate more than one terminal node, or in other words, different terminal nodes can correspond to the same lexical item. Figure 2 demonstrates, how this concept can be extended to 'phrasal affixation'. As is this case with portmanteau words, the form *ünlüydüm* is associated here with two terminal nodes: a coordinated AdjP as well as an independent V-node (arrows in Fig. 2 represent the specific relationship *instantiate*, which in this case is not a one-to-one relation). It should be noted, however, that even this approach does not address the most essential questions about optionality: 'Why it is possible?', 'Under which circumstances?', 'What is the inner mechanism of optionality?' etc.

Figure 2. Lexical sharing in Turkish
(Broadwell 2008: 2)


```
                     S
            AdjP            V
      AdjP  Conj  AdjP

      Zengin  ve      ünlü-y-dü-m
       rich  and    famous-COP-PAST-1SG
```
'I was rich and famous.'

Actively operating with such notions as *option*, *optional* etc., Optimality Theory (OT) at first glance appears to be an exception to the general tendency to ignore optional phenomena. The concept of option in OT is naturally opposed to the concept of default which is understood in this framework as a realization of one of two constraints: economy of derivation or profuseness of derivation. 'Option' is understood in OT as a process of blocking of these constraints by some higher-ranked constraint in situations when keeping the default pattern would lead to ill-formedness:

> The economy or triggering (*Do Something Only When*) class emerges when the lower-ranked constraint bans some structural option; when the dominating constraint is at stake, the banned option will be taken – and only then. The profuseness or blocking class (*Do Something Except When*) emerges when the lower-ranked constraint *favors* some option – perhaps by blocking its blocking by a yet-lower-ranked constraint; now the high-ranked constraint can force rejection of the otherwise favored option (Prince & Smolensky 2004: 28).

Thereby, use of a default strategy is not always attested in OT, since under some circumstances this strategy turns to be not optimal any more and *must* be substituted with some other, 'more optimal' (i.e. motivated by some higher-ranked constraint) option. This option, however, is not really 'optional', because it replaces the default model *obligatorily* and cannot be voluntarily left unapplied. Accordingly, 'true' optionality 'continues to be a problem in optimality-theoretic syntax' (Müller 2003: 317).

In my study, by contrast, I assume that a model is *default* if it needs no pre-conditions and is ALWAYS grammatical, whereas an optional pattern is licensed only under some particular circumstances (or, put differently, is restricted by some constraints). This sort of optionality is really 'true', since technically the optional pattern can be substituted with the default at any time. Extrapolating this principle to our problem of affix marking in coordinate structures, we can say that when affixes cannot be dropped at all (i.e. *obligatory marking* of both conjuncts) or, on the contrary, when affixes undergo *obligatory withdrawing*, such cases CANNOT be regarded as OAH.

Another linguistic framework that seems to be relevant to the default/option opposition is the theory of markedness, elaborated in the 1920-30s by the Prague linguistic circle - first for phonology (Trubetzkoy 1931) and later successfully extended to the study of grammatical categories as well as to semantics. According to Jakobson,

> The general meaning of a marked category states the presence of a certain (whether positive or negative) property A; the general meaning of the corresponding unmarked category states nothing about the presence of A and is used chiefly, but not exclusively, to indicate the absence of A (1971[1957]: 136).

Though the general character of this definition depicts markedness as 'something about which linguists come to have strong intuitions' (Rice 2003: 419), two dimensions of morphological (un-)markedness are commonly considered in relation to our problem of optional affixation: formal markedness and distribution (text frequency).[2] Formal markedness 'is solely a property of linguistic expression: the unmarked is the basic one – that which is unaffixed (as opposed to affixed) or simple (as opposed to compound)' (Battistella 1990: 34). Thus, from the formal (iconic) point of view, the unaffixed variant will always correspond to default, whereas the overtly affixed model always acts as an option. The OAH approach is much more flexible in this respect: some languages choose overt affixation as default and affix omission as option, while others prefer the opposite strategy (see Chapter 5 of this dissertation for more cross-linguistic details).

Text frequency as a criterion of (un-)markedness for grammatical categories was introduced in Greenberg (1966), who suggested that the instances of the marked property are statistically rarer than instances of others.[3] For OAH, on the contrary, the difference between default and option is not quantitative (i.e. based on statistically more widespread usage) but rather qualitative, or 'semantic' (*à la* Comrie 1976), since 'the unmarked (i.e. default – G.N.) category can always be used, even in a situation where the marked category would also be appropriate' (Comrie 1976: 112).

---

2   Referred to as 'material' and 'statistical' markedness respectively in Zwicky (1978).
3   The formal and the statistical criteria of (un-)markedness should not always match: it is not so uncommon that a 'formally marked' variant enjoys a higher distribution in texts and, therefore, is seen as 'unmarked' from a statistical point of view. The Perfective in Russian, for instance, has more 'morphological material' than the Imperfective (cf. *delal* (imperf.) – 'did' and *s-delal* (perf.) - 'have done, made'), but it is more frequently encountered in texts (see Comrie 1976, chapter 6).

Greenberg also recognized one more markedness aspect which appears to have been missed in other research and which to some degree resembles our approach to optionality. This is a criterion of 'facultative expression/*par excellence* interpretation' instantiated by the Korean plural suffix *-tul* which needs not always be used. The main focus of Greenberg's concern, however, lies not on the facultative (in our terminology 'optional') affix expression itself but rather on ambiguity of the zero-form which may be interpreted '[...] usually or *par excellence* as singular but as plural where the situation demands it' (Greenberg 1966: 28). Perhaps for this reason, he does not develop the idea of 'facultativity' and does not extend his approach to the situation of facultative *non-expression* with overt marking as default, i.e. to a scenario that OAH takes fully into account (see Chapter 5).

1.2.2 Affixation

The definition of OAH suggests that the optionally expressed unit is to be an affix, i.e. a bound morpheme performing abstract grammatical functions rather than bearing a concrete lexical meaning. It means that any lexical items (a root, a stem or an independent word) as well as any units below the morphological level fall beyond the scope of my research. For this reason we can exclude from the study cases like (5) – (7) where no item can be considered as an affix and, consequently, be interpreted in terms of OAH. In (5), one of the nominal compounds contains a dropped (and recuperable) element '*Garten-*', that is a lexeme, not an affix. In this aspect OAH differs from the phenomenon of *brachylogy* introduced in Pounder (2006), since the latter does not distinguish between ellipsis of morphological and lexical/syntactic items. The same holds for example (6) where a syntactically independent lexical unit, a determiner '*the*', is omitted.

(5) German (Pounder 2009)

Garten.pflege und -gestaltung

 garden.care and -shaping

(6) Plank (2006)

the father and (the) brother of John

The requirement '*to be an affix*' also prevents us from giving explanations as to what principle rules (7) out. Here, a syllable, i.e. a phonological unit, is dropped and, consequently, such cases will be ignored in this study, too.

(7) Plank (2006)

* *Afri- and Ameri-**ca***

1.2.3 Regularity

I suggest that OAH has to be a regular phenomenon exhibiting optionality both in written form and in oral speech. Otherwise, OAH can be considered either

- as a random phenomenon of fast-speech (as in (8)), where the conjunction '*und*' and the preceding 3rd person plural agreement marker '*-en*' are articulated as a single phoneme [ŋ])

or
- as a property of a non-linear text (as in (9)), where the derivational prefix *be-* conveying a general meaning of transitivity is shared by two verbs: '*treten*' – 'to tread' and '*fahren*' – 'to drive')

(8) German (Plank 2006)

   Sie komm-en und geh-en → Sie komm(=ng) gehen

they come-3PL.IND.PRES and go-3PL.IND.PRES   [kɔm.ŋgeːn]

'They come and go'

(9) German

BE ^{TRETEN}^{FAHREN}

VERBOTEN !

'No trespassing!' (lit. 'walk (in)/drive in forbidden')

1.2.4 Identity

The logic of definition implies that only absolutely identical affixes are required for OAH. Therefore, if affixes in the left and in the right conjuncts vary in their grammatical meaning, they are not a subject of analysis for OAH. Hence, this study does not deal with phrases like (10), where (judging by glosses) two nominal conjuncts have different gender properties. Accordingly, instance (10b) cannot illustrate the impossibility of phrasal marking correctly.

(10) Hindi (Payne 1995: 285)
a. *bahn-õ aur bhāi-yõ*
sister-**OBL.PL.FEM** and brother-**OBL.PL.MASC**
'sisters and brothers' (oblique)

b. * [*bahan aur bhāi*]-*yõ*
sister and brother-**OBL.PL.MASC**

The condition of identity holds also for co-indexing. In (11) two -*s* in both coordinated parts share the same phonological form and the same grammatical meaning (present tense, 3rd person, singular number). However, they refer to different subjects and in my view cannot be considered as absolutely identical.

(11) *John$_1$ eat-s$_1$ and George$_2$ drink-s$_2$.*

1.2.5 Coordination

It also follows from the definition of OAH that optional affixation is supposed to mark a conjunct, i.e. to be a part of a coordinate structure. With regard to this OAH parameter, it should be noticed, however, that the definition of coordination itself is far from being absolutely clear: the question of 'how coordination should be defined in such a way that the notion can be applied cross-linguistically' (Haspelmath 2004: 33) is still under discussion. Research aiming to formalize distinctions between coordination and subordination is also more concentrated on 'identifying problems than on suggesting solutions' (Comrie 2008: 16). All formal parameters such as the presence or absence of particular conjunctions, syndetic or asyndetic character of linking, symmetrical or asymmetrical morphological marking etc. cannot be taken into consideration, since, being based on such parameters, the definition of coordination inevitably turns to be language-specific and would not always suit the typological aims.

   Yuasa and Saddock (2002) suggested a group of *semantically-based* coordinatehood tests to be applied to a conjoining in question. They are as follows:

   i.   reversibility: free order of conjuncts, i.e. X & Y = Y & X
   ii. Coordinate Structure Constraint (Ross 1967): no-extraction rule for *wh*-elements
   iii. no backward pronominalization
   iv. recursivity: no restrictions on the number of conjuncts[4]
   v.   equal propositional status, i.e. $\neg$(X & Y) is true, if X is false **or** Y is false.

But it seems that some structures commonly considered as coordinating, meet only part of these requirements, failing to pass the whole set of the tests. Judging by the Coordinate Structure Constraint (CSC) rule, example (12a) can be seen as a coordinate structure, since it allows no extraction of the complement (12b). Meanwhile, changing the order of conjuncts in (12c) would result in different truth conditions which naturally goes against coordination.

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4   Cf. Haspelmath who noted that "adversative coordination is always binary. Ternary or other multiple coordination is impossible here" (2007: 2).

(12)

a. John ate and then met Mary.

b. *Who did John eat and then meet?

c. John met Mary and then ate. (≠ John ate and then met Mary.)

In the Korean equivalent of this phrase even the CSC rule is distinctly weakened and the wh-element *nwukwu* (누구) 'who' can be extracted from the constituent.

(13) Yoon (1997: 11)

존이 누구를 밥을 먹고 만났니?

  John-i   nwukwu-lul   pap-ul   mek-ko   manna-ss-ni

John-NOM   who-ACC   rice-ACC   eat-CVB   meet-PAST-QU.PLAIN

Such contradictions are interpreted by Yuasa & Saddock (2002) as a mismatch between 'semantic' and 'syntactic' coordination allowing semantically symmetric conjuncts to be expressed in some languages by asymmetric (i.e. unequal) morphological marking and vice versa. I leave aside the question of whether semantically asymmetric structures with structural symmetry can be regarded as 'coordination', or whether, as Haspelmath (2007) suggests, coordination is a purely semantic phenomenon. For my study, I will adapt the notion of coordination given by Lee & Ramsey specifically for the Korean language: 'coordinate conjunction links two or more independent clauses of equal standing, while subordinate conjunction indicates that the first clause is subordinate to the second and has a meaning of cause, condition, or the like' (2000: 186). Though determining coordination through 'equal standing of independent clauses' seems to be not unproblematic, we can assume, however, that *in coordinate structures, no conditional, causal or temporal relations between conjuncts are allowed to be expressed overtly, so that the linking element should not convey any specific information about conceptual dependency of conjuncts on each other.*

The requirement of coordination (even in such an imprecise and vague reading) prevents us from mixing OAH with such phenomena of morphological non-expression as phrase marking, sentence clitics and serial verb constructions. The notions *phrase*

marking, *group inflection*, *suffix copying* or *Suffixaufnahme* (see Lapointe 1990, Plank 1990, 1995, Plungian 1994 for details) refer to various cases of head/dependent (non-)agreement in phrasal constituents as in (14). In this NP the adjective *selig* – 'late, dead' being postnominal (14a), does not agree in gender, number or case with the head noun, while in the prenominal position (14b) such agreement has to be reckoned and overtly expressed.

(14) German (Plank 2006)

a. *mit mein-em Mann selig*

with my-**DAT.SG.MASC** husband deceased

b. *mit mein-em selig-en Mann*

with my-**DAT.SG.MASC** decease-**DAT.SG.MASC** husband

'with my late husband'

Accordingly, phrase marking cannot be accepted as a case of OAH by definition, since the word with reduced inflection is not a part of a coordinate structure. For the same reason example (15), illustrating phrase marking in Turkish cannot be regarded as a case of OAH either. Moreover, since boundaries between nouns and adjectives 'are somewhat blurred' in Turkish (Göksel & Kerslake 2005: 49), it is not overtly visible in (15) what we are dealing with: a NP with an adjectival modifier or a nominal compound (cf. German *Kurz.gespräch* (short.talk) and *kurz-es Gespräch* (short-SG.NEUT talk), where different structures have different marking).

(15) Turkish (Plank 2006)

küçük (***ler-im-i*)   *el-**ler-im-i***

small (*-PL-1SG.POSS-ACC) hand-**PL-1SG.POSS-ACC**

'my small hands'

Though in (16) there is both a coordinate pair and a grammatical ending with the scope spread over two conjuncts, we cannot regard this case as belonging to OAH

either, since the sentence clitic -*śmy* does not mark any element of the coordinate pair (*ate* / *drank*) and, therefore, is not a part of the coordinate structure.[5]

(16) Polish (Spencer and Luís 2006, borrowed from Franks & King 2000 with reference to Schenker 1973)

W kawiarni-śmy jedli   lody,   albo pili kawę.
  in   cafe -**1PL** ate   ice-cream or drank coffee
'In the café we ate ice-cream or drank coffee.'

The requirement 'coordination' is also not met by *serial verb constructions* (SVC). It seems that the concept of verbal serialization came from African linguistics and originally referred to constructions '...where two or more finite verbs along with their complements occur in a single clause without any form of coordination or subordination' (Stewart 2001: xi). SVC are widespread in the Kwa-languages (e.g. Edo, Nupe, Yoruba) and other members of the Niger-Congo family. Some typical cases of SVC are shown in (17).

(17) Yoruba (Bamgbose 1974: 17, 31)
a. *Ó mú ìwé wá.*
   he take book come
'He brought the book.'

b. *Ó sọ fún mi.*
  he say give me
'He told me.'

More recently, the notion of SVC has been extended to other languages, which unlike the West African languages, do not belong to the isolating type, e.g. Amazonian languages (Aikhenvald 1999), Arabic (Hussein 1990), English (Pullum 1990), Creole

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5   Several Polish native-speakers found (16) highly unlikely.

languages (Mufwene 1990), Japanese (Nishiyama 1998), Marathi (Pandharipande 1990), Papuan (Bruce 1988), Mesoamerican (Hale 1991), Native American (Redden 1990) languages etc. It has become customary to refer to any combination of two or more verbs in a single clause with a single tense value and no overt marker of coordination or subordination as SVC (see Aikhenvald 2006, Baker 1989, Hyman 1975, Foley & Olson 1985, Givón 1991, Jansen, Koopman & Muysken 1978, Muysken & Veenstra 1995, Tallerman 1998).

There were also attempts to apply this concept to Korean complex predicates with aspectual, causal or temporal meanings (Lee 1992, Choi 2003). However, it would probably be better to reject the idea of seeing serialization in Korean verbal clusters. First, judging from the complement extraction test (Dechaine 1993: 800), any Korean sentence with one subject and two successive predicates can be rendered as SVC (see example (13), repeated here, with *who* extracted from the second clause).

(13)

존이 누구를 밥을 먹고 만났니?

  John-i   nwukwu-lul pap-ul mek-ko manna-ss-ni

John-NOM   who-ACC rice-ACC eat-CVB meet-PAST-QU.PLAIN

Second, it is very unlikely that the requirement of 'no overt co- or subordinator' could be even theoretically fulfilled in the Korean language, which is as much agglutinative as hierarchical, and in which it is simply impossible to conjoin two independent (finite) verbs even in one sentence, not to speak of one clause. It is also impossible to conjoin bare verbal roots with each other as isolating African or Chinese serial verbs do, since Korean verbal stems are bound morphemes and cannot stand alone without further affixation. In examples illustrating Korean 'serialization', verbal roots are linked with the connecting element *-e* (-어) that is considered to be a 'dummy morpheme' or a 'dummy linker' (Lee 1992: 121-129).

(18) Lee (1992: 157, 149)[6]

a. 그는 고기를 구**어** 먹었다.

*ku-nun   koki-lul   kwu-**e**   mek-ess-ta*

that-TOP   meat-ACC   grill-**LINK**   eat-PAST-DECL.PLAIN

'He/She grilled the meat and ate it.'

b. 그는 순이에게 비밀을 말하**여** 주었다.

*ku-nun Swuni-eykey pimil-ul malha-**ye** cwu-ess-ta*

that-TOP   Swuni-DAT secret-ACC   tell-**LINK**   give-PAST-DECL.PLAIN

'He/She told Swuni the secret (for her).'

Meanwhile, it remains unclear why the *-e* element (alternating with *-a* in accordance with the vowel harmony principle) has to be viewed as 'dummy'. Considering the fact that the *-a /-e* element is believed to perform the function of the past tense suffix in Middle Korean (Sohn 1999: 52), it appears to be more natural to treat this element as a marker of the precedence converb (in terms of the Russian tradition of Korean linguistics), naturally subordinated to the main (final) verb and bearing the meaning 'having done something, I am doing something else'. The subordinate relations between these two verbs can be additionally stressed by the emphasizing particle *-se* (-서). Moreover, the second verb can be potentially modified with an adverbial adjunct, which also goes against the serialization view.

(18)

a'. 그는 고기를 구**워서** 맛있게 먹었다.

 *ku-nun   koki-lul   kwu-**we-se**   mas.iss-key   mek-ess-ta*

that-TOP meat-ACC   grill-**LINK-EMPH** taste.be-ADV   eat-PAST-DECL.PLAIN

'He/She grilled the meat and ate it with great relish.'

Accordingly, the linking type in (18a) cannot be considered as linking two bare stems or two independent verbs 'without any form of coordination or subordination'.

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6 Examples are given in the original author's orthography.

In contrast to (18a), in (18b) nothing may surface between the lexical verb and the more grammaticalized light (if not auxiliary, *à la* Jo 1990 or Yeon & Brown 2011) verb of the closed class. Moreover, the linking element *-e* (-어) has no meaning of precedence in this case. However, the light verb *cwu-* (주-) with the original meaning 'to give' conveys exclusively aspectual information in this case – 'to do something in someone's favour, to do something for someone', which, following Butt (1995) and Choi (2003), corresponds rather to complex predicates than to SVC.

Abandoning the question of whether SVC really exist in Korean and what exactly they are, it is clear that such complex verb constructions cannot be rendered in terms of OAH in Korean: they exhibit no coordinating relations between the elements.[7] Furthermore, from the cross-linguistic point of view, SVC does not meet the major requirement of OAH – optionality of marking. SVC would not fulfil this requirement by definition, since no inflection can be voluntarily inserted to, or be omitted from, the first verb in the construction. Consider (18a″) and (18b″) where no past tense affix can surface in the first verb.

(18)

a″. 그는 고기를 구(*었)워 먹었다.

*ku-nun   koki-lul   kwu-(*ess)-e   mek-ess-ta*

that-TOP meat-ACC grill-**(*PAST)**-LINK eat-PAST.DECL

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7 Not pursuing the problem of SVC in Korean, I think it is interesting to explore the relevance of the two following grammatical patterns to SVC. Firstly, the transferentive ending *-ta* denoting a change or shift of action is materially identical to lemma, i.e. a basic dictionary form for verbs. If these two endings are related to each other (see Martin 2007: 260), then phrases like 갔다왔다 *ka-ss-ta o-ass-ta* (go-PRF-TRANSF come-PAST-LEM) 'went and came back' or 가다봤다 *ka-ta po-ass-ta* (go-TRANSF see-PAST-LEM) 'saw while walking' can be considered as an example of SVC in Korean. Secondly, immediate attachment of a bound verbal root to another verb was common practice in Middle Korean (Ko 2009: 56, 193-194), e.g. 듣보다 *tut.po-ta* (hear.see-LEM) vs. modern 듣고 보다 *tut-ko po-ta* (hear-CVB see- LEM 'hear and see'. Such forms can be found even nowadays, e.g. 오르내리다 *olu.nayli-ta* (rise.fall-LEM) 'go up and down' instead of 오르고 내리다 *olu-ko nayli-ta* (rise-CVB fall-LEM) with the connective *-ko* in-between. This slightly resembles the original concept of SVC in African languages with two bare roots welded and further affixation as a separate functional head. Of course, such forms can be also interpreted as compounding which in turn is initial stage of grammaticalization (prefixing).

b". * 그는 순이에게 비밀을 말하(*했)어 주었다.

*ku-nun Swuni-eykey   pimil-ul   malha-(*ss)-e   cwu-ess-ta*

that-TOP Swuni-DAT secret-ACC tell-(*PAST)-LINK   give-PAST.DECL

1.3 Previous accounts

1.3.1 Suspended affixation in Turkish: morphological account

To my knowledge, there have been no comprehensive efforts to represent OAH in its entirety as an independent, complex cross-linguistic phenomenon. However, cases that can be regarded as OAH were explored in Turkish linguistics, being referred to there as *suspended affixation*.[8] The term 'suspended affixation' (SA) was introduced in the 1960s, denoting '...any case … when one grammatical ending serves two or more parallel words' (Lewis 1967: 35). This definition, however, gives no explanation as to what kind of words can be regarded as 'parallel'. Later, SA has been defined with more precision by Orgun: 'In this construction, when two suffixed words are conjoined, suffixes that have scope over both conjuncts may optionally be omitted from the first conjunct, and realized only on the second conjunct' (1996a: 25). Example (19) illustrates how SA works in Turkish: here, two nouns share the same inflectional categories which do not have to be specified in the first (left) conjunct.

(19) *ev (-ler-im)   ve   arba-lar-im*

 house(-PL-1SG.POSS) and car-PL-1SG.POSS

'my houses and cars'

   Though SA is very widespread in Turkish and can be observed both in verbal as well as in nominal coordination, no unified, cross-linguistically valid analysis of this remarkable phenomenon has been suggested until recently.[9] It seems that the first

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8   The difference between the notions 'OAH' and 'SA' will be discussed in Chapter 5 below.

9   More information about SA in Turkish can be found in Göksel & Kerslake 2005, Kornfilt 1996, Orgun 1995, 1996a, 1996b as well as in Yu & Good 2000.

attempt to give an in-depth look at this problem was made in Kabak (2007) where a morphological account of Turkish SA has been proposed. The morphological approach to SA is based on the concept of 'morphological word' (MW). According to this approach, '…suspension of affixes is legitimate if the bare conjunct constitutes a morphological word in Turkish. A morphological word is defined to be a form that is able to occur in isolation' (Kabak 2007: 341).[10] In other words, the hosting stem should be an independent word or an independent form that can stand alone without further affixation.

Turkish verbal roots are bound morphemes, so in order to be an MW they have to host one of the so-called 'terminal' endings, which are normally represented by specific modal or aspectual affixes. With such endings, a verbal stem is treated as an independent form and all slots to the right of the terminal ending (slots 3-7 in Figure 3) can be optionally dropped, while slots to the left are to be necessarily kept.

Figure 3. Morpheme slots of Turkish verbs

ROOT – slot 1 – **(slot 2)** – (slot 3) – (slot 4) – (slot 5) – (slot 6) – (slot 7)

terminal ending

In (20a), for instance, the past tense suffix -*dI* and the personal agreement marker -*k* can be optionally dropped after the 'terminal' aorist suffix -*Ir*. Without such a 'terminal' suffix, the inflection omission is illicit (20b).

(20) Turkish (Kabak 2007: 316)
a. *Çalış-ır* (-*dı-k*)   *ve   başar-ır-dı-k*
work-AOR-(PAST-1PL)   and succeed-AOR-PAST-1PL

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10 This definition of MW should not be confused with the concept of morphological word (or 'moreme') proposed in Zwicky (1990a) and (1990b) where it stands for a lexeme or a 'vocabulary word', i.e a paradigmatic unit opposed to a syntagmatic 'syntactic word'.

b. * *Çalış   ve   başar-ır-dı-k*

   work   and   succeed-AOR-PAST-1PL

'We used to work and succeed.'

    Turkish nominal roots are free morphemes and, consequently, they are all morphological words, since they can stand alone. Accordingly, the whole string of nominal inflection can be omitted from non-final nominal conjuncts. In (21), for instance, the plural marker *-ler*, the personal agreement marker *-im* and the accusative case marker *-i* can be removed from the first noun of the coordinate pair.

(21) *Kedi* (*ler-im-i*) *ve*   *köpek-ler-im-i*

  cat (PL-1SG.POSS-ACC) and   dog-PL-1SG.POSS-ACC

'My cats and dogs (acc)'

However, if affix addition causes any phonological alternation in the hosting stem, optionality of omission fails and both conjuncts must preserve the full set of inflection. As shown in (22a) and (22b), the 1ˢᵗ ('*ben*') and 2ⁿᵈ ('*sen*') person singular personal pronouns followed by the dative case marker carry a low back vowel [a] in the root, which makes suspension of the dative case marker in the coordinate structure impossible (cf. (22c) and (22d)).

(22) Turkish (Kabak 2007: 340)

a. /ben/ + /-(y)E/ → [bana] 'to me'

   1SG   DAT

b. /sen/ + /-(y)E/ → [sana] 'to you'

   2SG   DAT

c. *ban-a ve san-a gel-en paket-ler*

  1SG-DAT and 2SG-DAT come-REL   parcel-PL

'the parcels that came to me and you'

d. * *ben ve   san-a   gel-en paket-ler*

   1SG and   2SG-DAT come-REL parcel-PL

Unfortunately, this (phono-)morphological approach cannot be applied cross-linguistically. The concept of 'terminal ending' that Kabak originally adopts from Sohn (1999) is understood in Korean linguistics completely differently. As Figure 4 shows, the *whole* string of Korean suffix slots is placed between the root and terminal ending and no *further* inflection (either optional or obligatory) is allowed *after* the terminal sentence or clause ender as the morphological account suggests (cf. Figure 3).

Figure 4. Morpheme slots of Korean verbs

ROOT – slot 1 – (slot 2) – (slot 3) – (slot 4) – (slot 5)– **terminal ending**

                                 clause ender   sentence ender
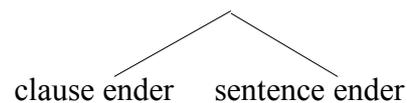
The phonological constraints do not apply to Korean either. The very similar allomorphic alternations in stems of the 1st and 2nd singular personal pronouns can be observed in Korean, too. The addition of the nominative case marker *-ka* to the personal pronouns *ne-* ('you') or *na-* ('I') causes mandatory phonological alternations in the hosting stem as (23) demonstrates. However, unlike the Turkish counterpart, such phonological alternations do not prevent affix dropping from the first element of the coordinate structure in (23c).

(23) [29a, 29b]

a. 너 + 가 = 네가

  [nə] + [ka] = [nega] - 'you (nom)'

  2SG   NOM

b. 나 + 가 = 내가

  [na] + [ka] = [nɛga] - 'I (nom.)'

  1SG   NOM

c. 너와 내가 아니면 그일을 누가 끝 마칠 수 있겠니?

 ne-wa   nay-ka   an-i-myen ku.il-ul nwuka kkuth.machi-l swu   iss-kess-ni

you-CONN I-NOM NEG-COP-if that.job-ACC who end.finish-MOD mean be-FUT-QU.PLAIN

'If not you and me, who (else) can/will finish that job?'

Thus, implications of the morphological account cannot be extrapolated to the Korean data. Furthermore, even in Turkish the morphological account does not work properly all the time. Kabak himself admits that some cases of SA are '…far too complex to be accounted for merely on morphological grounds' (2007: 341-342).

1.3.2 'Suspended affixation' in other languages

The phenomenon of SA was, for a long time, investigated exclusively within Turkish linguistics. Perhaps for this reason, no consideration was given to questions such as 'Which languages have an inclination towards SA and why?', 'What triggers or restricts optionality and under which conditions?', 'What determines the directionality of suspension?' and so on. Those recent attempts which have been made to extend the concept of SA to comparable cases in other languages revealed a confusing tendency to mix affix suspension (often understood only intuitively) with all possible phenomena of morphological and non-morphological ellipsis.[11] Thus, Gurevich (2006) and Aissen (2012) understand SA (in Georgian and Trotzil respectively) as group inflection, which is i) obligatory, not optional and ii) occurs in 'head/modifier' phrases, not in coordinate structures. Noyer (2012) explores Huawe noun-verb agreement, which definitely cannot be regarded as a case of SA either. Spencer & Luís (2006) consider SA to be a sort of cliticalization and illustrate it with Romance and Slavic 'floating' clitics which do not mark any of the conjuncts (see example (16) above). In Nishiyama (2012), Japanese auxiliary/aspectual verbs (i.e. non-affixal items) are also analysed in terms of SA.

    Though Yoon (2012) deals with cases that do not conflict with the formal

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11 The phenomenon of SA was a main topic of two workshops: at the University of Konstanz (Germany) in 2006 (http://ling.uni-konstanz.de/pages/conferences/asd/asd.html) and at Cornell University (USA) in 2012 (http://conf.ling.cornell.edu/WOSA/).

requirements of OAH, these patterns are not the major focus of his interest but rather an instrument in theoretical argumentation against the Lexical Integrity principle as well as against Distributed Morphology. An outline of 'suspendable' (or 'transparent') Korean adjectival derivational affixes Yoon (2012) makes in his study is obviously not sufficient to give a complete picture of the OAH-phenomenon in Korean.[12] Besides, facultative specification of affixes in Korean belongs to a different type of optionality than that in European languages or in Turkish, and consequently cannot be referred to as 'suspended affixation' (see section 5.1 for OAH typology).

In the absence of a strict, cross-linguistically valid definition of SA, its essential properties or structural representation are sometimes taken for its triggering mechanism or conducive milieu. For instance, it has been suggested in Wälchli (2006) that 'suspended affixation occurs when an affix has wide scope over a coordinate sequence', which is hardly distinguishable from the definition of SA. In the same vein Koopman (2012) proposed that when SA fails in cases like *[*close and open*]-*ed*, then this supports the view that *close* and *open* cannot coordinate below *-ed*, which also cannot be treated as a comprehensive explanation of this optional phenomenon.[13]

It seems that the only comprehensive approach to SA has been suggested by Grijzenhout & Kaufmann (2006) for European derivational affixes (in German, English and Dutch). They claim that 'suffix suspension seems to be possible if and only if the element that is left behind constitutes a prosodic word domain'. Accordingly, in order to make suspension possible, affix addition (or omission) should not change the prosodic structure of the stem, as in (24) where the suffix *-hood* is stress neutral and does not change the prosodic structure of the hosting root.

(24) *adult- and childhood*

['ædʌlt]→['ædʌlthud]

['ʧaild]→['ʧaildhud]

---

12 The status of these suffixes is also dubious, since they can be treated also as light or even independent verbs, e.g. *kath-* (같-) 'to be/act like'.

13 Meanwhile, the role coordination 'tightness' (a notion used in Wälchli 2006) and 'length' (mentioned in Koopman 2012) play for optionality appears to be promising for the question of favourable environment for OAH. This role will be observed in more details in section 5.2.

In (25), on the contrary, attachment of the suffix *-ity* shifts the stress from the root, making the prosodic structures of the first and second conjuncts different, which blocks the SA process.

(25) * *mortal- and brutality*
['mɔː tl]→[mɔː 'tæliti]
['bruː tl]→[bruː 'tæliti]

Unlike Kabak's unified morphological approach to SA in Turkish, this account appears to be less language-specific. The problem, however, is that there is no lexical stress in Korean in the European sense of the word: 'Lexical stress is not significant in Korean, because it does not contribute to meaning differentiation ... Stress is distributed more or less evenly' (Sohn 1999: 197). Therefore, the phonological approach cannot be applied to Korean patterns of OAH either.

Given the fact that none of the previous accounts of SA can be used for interpretation of OAH in Korean, we have to find out some other mechanisms triggering OAH in this language.

1.4 Summary

Formulating the terminology of OAH more precisely, I have suggested that the concept of *option* crucially relies on the concept of *default*: the default model needs no preconditions and is always attested, while the optional model is licensed only under particular circumstances (or, paraphrasing, it is restricted by some constraints). Five parameters (or pre-conditions) of OAH have been introduced following from the definition:

- marking or non-marking must be optional, i.e. any deleted affix must be always recuperable and any extra added affix should be free to delete
- OAH deals only with affixes
- optionality in affixation must be a regular process (not a random phenomenon of fast-speech phonology or non-linear pictographic texts)

- affixes must be semantically identical

- affixes have to be a part of a coordinate structure, i.e. mark conjuncts

No approach to optional affixation elaborated so far can be applied to Korean and consequently, be rendered as universally or cross-linguistically valid.

1.5 Objectives and structure of the dissertation

Though the concept of OAH can be potentially applied to any type of affixation, the focus of my study lies essentially on inflective affixes. Obligatoriness of inflection is traditionally considered as a criterion distinguishing it from derivation (Greenberg 1990 [1954]: 21, Haspelmath 2002: 72), which makes optionality in specification of inflectional categories particularly interesting for the theory of morphology. The main goal of my dissertation, therefore, is to give a primary description of optional hosting of inflectional affixes by both verbal and nominal roots in Korean balanced[14] simple[15] binary *and*-coordinating constructions with an overt coordinator[16]. To fulfil this task, it is necessary to find out which affixes and under which circumstances can be expressed optionally in Korean as well as what motivates overspecification in structures where single marking is possible and sufficient. Then, a possibility of cross-linguistic generalizations on OAH will be examined.

The dissertation proceeds as follows. In Chapter 2, I survey cases of verbal OAH in Korean. Basing my argument on the essential parameters of OAH, I will define the verbal affixes that can be interpreted in terms of OAH. For this purpose, it will be necessary to analyse the type of verbal conjoining that Korean employs. I show that this type can be classified as 'chaining' (Longacre 1985) or 'absolute de-ranking' (Stassen 1985), since no equally ranked independent verbs can be conjoined in Korean. A conjoining pattern such as this reduces the number of inflectional affixes that can be reduplicated in final and non-final predicates to a minimum. Comparing morphological

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14 According to Johannessen 1998, conjuncts in balanced coordinate structures share the same morpho-syntactic properties (e.g. *she and I*), and in unbalanced - different ones (e.g. *she and me*).

15 One coordinate pair in the sentence, no more than one logical operator pro sentence.

16 As Korean corpus studies reveal (e.g. Kim & Yang 2006), binary *and*-monosyndeton is the most frequently used and, consequently, the most representative conjoining strategy in Korean.

templates of final and non-final predicates, I will find out which affixes can optionally surface in both verbal conjuncts as well as which role 'core/periphery' positioning in the morphological template plays in this process.

Optional hosting of nominal affixes will be observed in Chapter 3. Being a chaining language with no conjunctions, Korean has elaborated different patterns for verbal and nominal conjoining. However, the standard model of nominal conjoining tending to the 'WITH-strategy' (*à la* Stassen 2000) is as highly hierarchical as the verbal one. It will be shown that syntactic suffixes (i.e. the nominative, accusative and genitive case-markers) undergo obligatory withdrawing in the subordinative environment of Korean nominal conjoining. At the same time, non-syntactic (i.e. semantic) suffixes can survive in nominal non-final conjuncts. Further, the dissertation will demonstrate which factors are instrumental in this process and whether a unified approach to optional hosting of both verbal and nominal affixes can be suggested.

Considering the fact that OAH in Korean provides an option to mark the same morpho-syntactic property twice in both conjuncts (i.e. overspecification), Chapter 4 addresses the issue of what motivates double-marking in structures, where single-marking is possible and default. I will argue that optionality in general and overspecification in particular do not always lead to redundancy: being a part of the information structure, double-marking performs some functional duties, both in nominal as well as in verbal &P-s.

Chapter 5 deals with some typological aspects of OAH. It will be argued that OAH is not a homogeneous phenomenon: different languages may exhibit different types of optionality of affixation. Further, the question of the conducive milieu for OAH will be discussed. I suggest that optionality of 'medial' inflection in coordinate structures crucially correlates with the degree of coordination tightness, which in turn is determined by the length of coordination. Also, cross-linguistic regularities in directionality of affix (non-) expression will be observed.

Chapter 6 concludes my thesis. Here, I summarize all generalizations made so far, arguing that optionality of inflection in coordinate structures, which used to be considered as a morpho-phonological phenomenon, is rather an interface of syntax and pragmatics.

Chapter 2

Optionality in specification of medial verbal affixes

Korean is an agglutinative language and, in comparison with other languages, it possesses a notably rich system of verbal inflection. In the absence of such word-classes as conjunctions, prepositions and complementizers (e.g. relative pronouns), verbal inflectional affixes perform a vast number of grammatical functions and express various grammatical relations. Some count more than 400 paradigmatic affixes in Korean and 'that number does not include structures that are treated as *inflected form + particle*' (Martin 2007: 244). However, in spite of such diversity, only a few of these affixes can be expressed optionally in coordinate/conjoined structures. The specific model of Korean verbal conjoining is mostly responsible for that.

2.1 Coordination pattern

The model of verbal conjoining Korean employs differs drastically from the 'balancing' (Stassen 1985) aka 'co-ranking' (Longacre 1985) European pattern of coordination which allows one to conjoin two independent (i.e. finite) predicates in one sentence, e.g. *He sings and dances*. Such a coordination pattern is opposed to another strategy of conjoining that, according to Stassen, can be defined as 'deranking':

> …Rather than keeping the balance, however, a language may also choose to represent the two predicates in a C-chain (consecutive chain – G.N.) by reducing one of the predicates in a rank. In such a case, only one of the predicates in the chain retains its finite verb form, whereas the other predicate is represented as a subordinate, usually non-finite, verbal construct. Languages of this type I will call *deranking languages* (Stassen 1985: 77)

or, more precisely, 'absolute deranking':

… That is, these languages may derank one of the predicates in a C-chain *regardless of whether the predicates in the chain have identical or non-identical subjects ...* languages in which such a structural possibility exists will be called instances of absolute deranking languages (Stassen 1985: 85).

Longacre characterized such languages as 'chaining'.[17] In chaining languages

...it is simply not possible to combine two verbs of the same rank in the same sentence. A sentence typically ends in a dominating verb of fuller structure than any of the preceding verbs. These preceding verbs are commonly referred to as medial verbs while the dominating verb in the end is known as the final verb ... In chaining languages, non-final verbs are stripped to stems with minimal inflection (1985: 238).

Originally focusing on the languages of Papua New Guinea and some South American languages, in the revised version of his article 'Sentences as combinations of clauses' Longacre mentioned Korean as belonging 'to the belt of languages with chaining structures' (2007: 399) as well. Indeed, the model of Korean verbal conjoining shares all the major properties of a chaining language. Firstly, in Korean it is impossible to conjoin two independent (i.e. finite) verbs within one sentence. In this SOV language, *sentence enders*[18] as illocutionary force markers determining the speech level (varying from formal to plain) and the utterance type (declarative, interrogative, imperative or propositive) have to be substituted with *clause enders*[19] in non-final clause verbs, converting them into specific *converbal* forms[20], i.e.

(26)   *V1-converbal clause ender   V2- illocutionary force*
             (* *V1-illocutionary force & V2- illocutionary force*)

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17 The term 'clause chaining' can be traced back to McCarty (1965), as Haspelmath (1995) noticed.

18 Referred to as *mwunmalemi* (문말어미) – 'sentence-final endings' or *congkyelemi* (종결어미) – 'terminal endings' in Korean linguistics.

19 Referred to as *pimwunmalemi* (비문말어미) – 'non-sentence-final endings' or *yenkyelemi* (연결어미) – 'connective endings' in Korean linguistics.

20 The notion '*converb*' is analogous to the notions '*gerund*' or '*adverbial participle*' in the European linguistic tradition, '*deepričastije*' in Russian or '*conjunctive participle*' in South Asian languages.

The most common non-analytic (i.e. not composed of more elementary parts) clause ender meeting the requirement of being coordinating is the ending *-ko* (-고) that conveys the general idea of conjoining in the most indefinite sense, i.e. with no overtly expressed temporal, causal, conditional or some other relations between two verbal conjuncts (cf. our definition of coordination in Chapter 1). Since *sentence enders* cannot be reduplicated in the first verbal conjunct, and *clause enders* in the final one, then optionality in specification of inflectional affixes can theoretically affect only *pre-final* endings[21] occupying slots between the lexical root and the clause ender *-ko* (see Figure 5).

Figure 5. Slot structure of Korean medial verbs

ROOT – *slot 1 – slot 2 – slot 3 – slot 4 – slot 5* – **non-final clause ending**

- *ko* (-고)
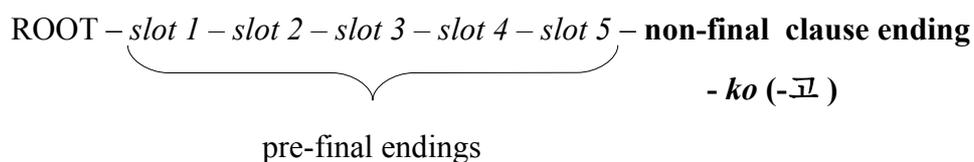
pre-final endings

Secondly, even the pre-final suffixes do not always survive in non-final predicates: very often they undergo obligatory withdrawing. In the light of that, it is necessary for understanding of the OAH phenomenon in Korean to take the following steps:

- to outline a range of pre-final verbal affixes which can co-occur in both conjuncts, finite and non-finite
- to unearth the circumstances under which these suffixes can survive in medial verbs
- to identify among these pre-final affixes those that meet the requirements of OAH

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21 Referred to as *senemalemi* (선어말어미) - 'pre-final endings' in Korean linguistics.

2.2 Affix inventory: co-occurrence, identity, relevance to OAH

In order to identify pre-final verbal affixes fitting to the requirements of OAH, let us first compare morphological templates of Korean final and non-final verbs.[22] For my study I borrow the order of verbal morphological slots from Sohn (1999: 354), adapting it for final and medial verbs (Figure 6a and 6b). On these two figures we can see that the two affix arrays are practically identical, departing from each other only in the very last slot. This divergence has structural motivations based on the specific properties of the 'chaining' nature of Korean verbal conjoining discussed in the previous section.

Figure 6. Affix array of the Korean verb

a. Final verb template[23]

(Prefix) – **ROOT** – (Voice) – (SH) – (Aspect) – (Tense) – (Modality) – **Sentence**

ender

(AH)   (Mood)   **CL-T**
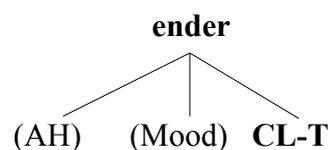
b. Non-final verb template

(Prefix) – **ROOT** – (Voice) – (SH) – (Aspect) – (Tense) – (Modality) - **Clause**

ender

(Mood)   **CL-T**
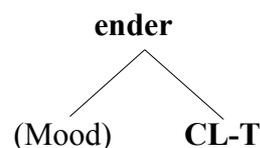
Though the last slot can potentially contain information about addressee honorification (AH), mood and clause type (CL-T), only the presence of CL-T specification is obligatory, since it conveys information about speech level and utterance type (for

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22 The notion 'template' is understood here exclusively as 'affix order' and should not be confused with the templatic (i.e. 'unmotivated' in terms of Manova & Aronoff 2010) morphology: as it will be shown below, Korean verb morphology tends rather to the hierarchical layered than to the flat templatic principle of affix ordering (for more information on this problem, see Rice 2000, Bickel & Nichols 2007, Manova & Aronoff 2010).

23 Optional slots are given in brackets, obligatory slots in bold font.

sentence enders) or shows the type of inter-clausal relations (for clause enders). Meanwhile, it is not obligatory to specify the AH and mood categories. As for AH, it can be found only in sentence enders of one particular speech style – formal deferential. As long as this suffix never appears in clause enders and, consequently, cannot be reduplicated in converbs, it is not relevant to the topic of our study.

Mood is one of the most controversial categories and is treated in various different ways in Korean grammars. Some researchers (orienting themselves, probably, on the European linguistic tradition) associate mood with clause-type (e.g. Lee 1989, Wymann 1996, Martin 2007) recognizing declarative, imperative, propositive (aka hortative) and interrogative moods in Korean. There is also another approach (see Sohn 1999, ch. 9.8.2) that distinguishes between mood and clause-type categories and suggests a separate set of pre-final suffixes encoding indicative (-*n*-/-*ni*-/-*nu*-), retrospective (-*ti*-/-*tey*-/-*te*-), requestive (-*si*-/-*se*)[24] as well as suppositive (-*ci*)[25] moods. It is representative that some suffixes from this set are considered as aspect (in Martin 2007: 246) or tense (in Lee & Ramsey 2000: 180 or Yeon & Brown 2011: 200) markers. Some linguists (e.g. Mazur 2001: 121-122, Ko & Koo 2009 ch. 12.1) do not include requestive and suppositive grammemes to the mood system. Instead, they add the 'prognostic' or 'presumptive' (*chwuchuk-pep*, 추측법) value to the paradigm. The 'prognostic' mood is encoded with the suffix -(*u*)*li*- (-으리) which, in turn, is referred to as a modal suffix in Sohn (1999: 361) or as the future tense suffix in Lee (1989: 91).

Theoretically, the elements -*n*-/-*ni*-/-*nu*- and -*ti*-/-*tey*-/-*te*- (corresponding respectively to the indicative and retrospective mood *à la* Sohn 1999) may be reduplicated both in final and non-final predicates. However, in order to avoid controversy, this dissertation follows the Russian (tracing back to Kholodovich 1954) and German (Lewin 1970) tradition of Korean linguistics that treats clause and sentence enders as morphemes, i.e. as single units that cannot be split and from which no element can be extracted. This approach does not conflict with the Korean linguistic tradition that intuitively refers (in dictionaries, grammars, text-books) to even the most complex

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24 As in AH, the requestive mood can be found only in final verbs (in sentence enders) and cannot occur in non-final predicates (converbs).

25 It remains unclear, whether and how the suppositive mood marker -*ci* (-지) differs from the homonymous negative nominalizer.

sentence/clause enders as a whole, and not as a combination of independent smaller items placed in different morphological slots. Moreover, considering the fact that the central function of both mood and the clause-type elements is specification of illocutionary force, it seems unreasonable to separate them from each other.

Thus, keeping morphological integrity of the final slot, we exclude sentence and clause enders from our analysis, since both these elements are obligatory fields that can never be dropped, and logically cannot be expressed optionally. At the same time, it is not obligatory for any other slots (except, of course, lexical roots) to be present in the template. Consequently, being found both in final and non-final verbs, these suffixes can theoretically be a subject of OAH. Now, let us examine, which affixes really license optionality in specification.

2.2.1 Prefixes

(Prefix) – ROOT – (Voice) – (SH) – (Aspect) – (Tense) – (Modality) – terminal

ending

In contrast to some other potentially affiliated Altaic languages like Turkish, which lacks prefixing, Korean verbs enjoy this kind of affixation.[26] Verbal prefixes, however, are very few in number, and, more importantly, their morphological status is not unproblematic. For instance, it is not very difficult to note that the elements *nay*- (내-) 'outwardly', *nuc*- (늦-) 'late', *tes*- (덧-) 'additionally', which are referred to in grammars as prefixes (e.g. in Sohn 1999: 224) are obviously correlated with the verbal roots *nay*- (내-) 'to take out', *nuc*- (늦-) 'to be late' and adverb *te* (더) 'more' respectively, which makes prefixing hardly distinguishable from compounding.[27]

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26 Prefixation can be found in Turkish only as reduplication of a word or part of a word as well as in a few loan words (see Göksel & Kerslake 2005, chapters 7.4 and 9).

27 A situation with nominal prefixing, when items with a pure lexical and no abstract grammatical meaning are referred to as affixes, seems to be even more confusing. Consider, for instance, the Sino-Korean (SK) element *oy*- (외, 外) 'outside' that is, on the one hand, taken for a prefix (e.g. in Sohn 1999: 220 or Lee & Ramsey 2000: 117) in words like *oy-halmeni* (외할머니) 'maternal grandmother' (lit. 'outside grandmother') or *oy-halapoci* (외할아버지) 'maternal grandfather' (lit. 'outside grandfather'). On the other hand, in words like *oy.kwuk* (외국, 外國) 'foreign land, abroad' (lit. 'outside country') or *oy.kwa* (외과, 外科) 'surgery, external medicine' (lit. 'external department') the

Such ambiguity might be a possible source of some extra complications for my research. Meanwhile, absolutely all Korean verbal prefixes are i) derivational and ii) syntactically irrelevant (not word class-converting), used only to narrow the lexical meaning of verbs. This places prefixes out of the scope of my study, the focus of which crucially lies on inflection. Moreover, there are also some structural reasons that raise a barrier for optional hosting of prefixes in the orthodox head-final Korean language. These reasons will be highlighted in section 5.3 below.

2.2.2 Voice suffixes

(Prefix) – ROOT – (Voice) – (SH) – (Aspect) – (Tense) – (Modality) – terminal ending

The first slot to the right of the lexical root is reserved for voice suffixes. Most linguists recognise three voices in Korean: active, passive and causative. Of these three, the active voice is unmarked (expressed by null morpheme), whereas passive and causative constructions are realized overtly, inter alia morphologically, by two sets of corresponding suffixes. As Table 1 shows, these sets of passive and causative suffixes are mainly identical in form; some verbs even use the same exponent for both meanings, e.g. the voice suffix *-i* (-이) being attached to the verbal root *po-* (보-) - 'to see' can be interpreted either as causation (*po-i-* 'to show') or as passivisation (*po-i-* 'to appear', 'to show up').[28] The voice suffixes are 'mutually exclusive and only one voice suffix is found with the verb stem at a time' (Lee 1989: 84).

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same element *oy-* is supposed to be treated as a part of the root. It is also remarkable that in the words *oy-halmeni* or *oy-halapoci* the SK element *oy-* (外) is combined with native Korean (NK) words *halmeni* and *halapoci*. This indirectly indicates compounding, since 'in general, a native affix occurs with a native root or stem, and rarely with an Sino-Korean root or stem, and vice versa' (Sohn 1999: 218). Compounding, by contrast, is less sensitive with regard to homogenousity and allows the combination of elements of different origin, e.g. *aph-mwun* (앞門) – 'front door' (lit. NK *aph-* 'front' + SK *mwun* – 'door') or *kangka* – (江가) – 'river bank' (lit. SK *kang* 'river' + NK *ka* 'bank, side, coastline'). So, it is not surprising that such 'prefixes' are defined as 'bound adnouns' in Martin 2007, ch. 5.3.3.

28 Some linguists claim that Korean passive suffixes have developed from causative ones via functional shift (see Park 1994, Sohn 1996 for details).

Table 1. Korean voice suffixes

Causative	*-i-* (-이)	*-ki-* (-기-)	*-li-* (-리-)	*-hi-* (-히-)	*-wu-* (-우-)	*-chwu-* (-추-)	*-kwu-* (-구-)
Passive	*-i-* (-이)	*-ki-* (-기-)	*-li-* (-리-)	*-hi-* (-히-)			

The voice suffixes are not word-class converting but they undoubtedly belong to derivational morphology and cannot be removed from the verb, either obligatorily, or optionally: ex. (26) illustrates that for the passive voice suffix, ex. (27) – for the causative. That makes voice suffixes irrelevant for the problem of OAH.

(26) [30a, 30b]

문이 바람에 계속해서 열**리**고/*열고 닫**히**었다.

  *mwun-i   palam-ey   kyeysokhayse yel-**li**-ko / *yel-ko   tat-**hi**-ess-ta*

door-NOM   wind-DAT   continuously open-**PASS**-CVB / *open-CVB   close-**PASS**-PAST-

DECL.PLAIN

'The door opened and closed in the wind.'

(27) [31a, 31b]

어머니가 자식들에게 밥도 먹**이**고 / * 먹고 우유도 먹**이**었다.

  *emeni-ka   casik-tul-eykey   pap-to   mek-**i**-ko / *mek-ko   wuyu-to*

mother-NOM   child-PL-DAT   rice-also   eat-**CAUS**-CVB / *eat-CVB   milk-also

  *mek-**i**-ess-ta*

 eat-**CAUS**-PAST-DECL.PLAIN

'Mother fed children and also gave them some milk.'

2.2.3 Subject honorific suffix -*si*

(Prefix) – ROOT – (Voice) – (SH) – (Aspect) – (Tense) – (Modality) – terminal ending

The subject honorific (SH) marker -*si* (-시) is 'the only honorific suffix, which may be found with any verb stem ... The class meaning of the honorific suffix is the 'Respect' shown by the speaker to the subject of a clause or sentence in which it occurs' (Lee 1989: 87). As follows from the definition, this suffix serves as verb agreement with the sentence subject. That slightly resembles trivial European subject agreement, but instead of conjugation in person/gender/number, Korean verbs agree in *deference* showing some sort of concordance with honorific or non-honorific subjects. Not surprisingly, this suffix normally refers to subjects denoting people, since 'one certainly would not accord deference to trees, rocks, wind, or even a country; the same is true of animals or birds' (Lee & Ramsey 2000: 241). For similar reasons SH can never be used with 1st person subjects, since deference cannot be addressed to the speaker himself.

(28) [32a, 32b]

나는 그책을 벌써 읽(*으시)었다.

na-nun   ku.chayk-ul   pelsse   ilk-(*usi)-ess-ta

 I-TOP   that.book-ACC   already   read-(*SH)-PAST-DECL.PLAIN

'I have already read (*deferent.) that book.'

Furthermore, if a *collective* 3rd person subject of the sentence includes someone whose social status is not high enough to express deference (29a), the usage of this suffix is unattested (cf. example (29b), where occurrence of this suffix with an *individual* honorific subject is absolutely in order).

(29) [33a, 33b]

a. * 할아버지와 손자는 극장에 가셨습니다.

halapoci-wa   *sonca-nun*   *kukcang-ey*   *ka-(*si)-ess-supnita*

grandfather-CONN   grandson-TOP   theatre-GOAL   go-(*SH)-PAST-DECL.FORM

'Grandfather and grandson went (*deferent.) to the cinema.'

b. 할아버지는 손자와 같이 극장에 가**셨**습니다.

 halapoci-nun   *sonca-wa*   *kathi*   *kukcang-ey*   *ka-**si**-ess-supnita*

 grandfather-TOP   grandson-COM   together   theatre- GOAL   go-SH-PAST-DECL.FORM

'Grandfather went (deferent.) to the cinema together with his grandson.'

Unlike European agreement, however, this suffix cannot be defined as completely inflectional (syntactic), since its usage depends on sociocultural, i.e. pragmatic reasons rather than on syntactic environment. For instance, to mark the predicate in (30) with this suffix would be totally reasonable and even prescribed in a situation, when a child talks about his father with a friend of the same age. But if the child addresses the same question to his grandfather, the usage of the SH marker would not be attested, because 'when the hearer is higher in status than the subject of the sentence, even if the subject is higher than the speaker, the subject is not elevated' (Ihm, Hong & Chang 1999: 219).

(30) Lee & Ramsey (2000: 240)

아버지 언제 오시니?

 apeci   *ence*   *o-si-ni*

father   when   come-SH-QU.PLAIN

'When is the father coming (deferent.)?'

Thus, the nature of this suffix is ambivalent. And this ambivalent nature results in controversial behaviours which the SH marker demonstrates in conjoined structures: some cases of its optional expression can be regarded as OAH, whereas others cannot be so clearly defined (e.g. usage of this suffix in complex sentences with two different subjects, or its occurrence in subordinate clauses). All these patterns will be observed in more details in section 2.3, that deals with a grey area of OAH.

2.2.4 Aspect and tense

(Prefix) – ROOT – (Voice) – (SH) – (Aspect) – (Tense) – (Modality) – terminal
ending

The next two slots can be filled with the suffix -*ess*- (었). The suffix -*ess*- (었) that in accordance with the vowel harmony principle alternates with -*ass*- (았) after the 'bright' vowels *a* (아) and *o* (오), has developed from the more complex Middle Korean resultative form -*a/-e is-ta* (-PAST be-LEM) - 'to be in the state of' (Lee & Ramsey 2011: 277, Sohn 1999: 363). The suffix -*ass-/-ess*- is a completely grammaticalized form and in respect of the grammaticalization degree, it is comparable with Germanic Preterite, which (as Tops 1974, Plank 1999 and Lahiri 2003 claim), is derived from the corresponding past tense forms of the Indo-European verb *to do* that "due to grammaticalization and reanalysis ... became a suffix and is now present as the productive tense marker in all the Germanic languages" (Lahiri 2003: 91). As in contemporary Germanic, where grammaticalized Preterite affixes co-exist with the source verb *do* (Germ. *tun*), contemporary Korean also actively employs both the complex aspectual construction -*a/-e iss-ta* (-아/-어 있다) with an overt perfect reading 'is done', 'is in a state resulting from' and the suffix -*ass/-ess* originated from this construction. The independent and parallel existence of both forms with different meanings can be considered as a sign of grammaticalization process complete.

The suffix -*ass/-ess* has one more point of resemblance with English/Germanic tenses – close interacting between aspect and tempus categories, when it is often rather difficult to distinguish the aspectual perfective meaning from the temporal simple past. Indeed, in phrases like (31) with a telic verb *come*, or (32) with a punctual verb *die*, suffix -*ass/-ess* can bear different readings depending on the context (see translation of the examples).

(31) Lee (1989: 88)
봄이 왔다.

*pom-i   o-**ass**-ta*

spring-NOM come-SUF-DECL.PLAIN

'1. Spring came. / 2. Spring is here (has come).'

(32) 할아버지가 죽었다.

*halapeci-ka   cwuk-**ess**-ta*

grandfather-NOM   die-SUF-DECL.PLAIN

'1. Grandfather died. / 2. Grandfather is dead.'

In other cases, the role of *-ass-/-ess* suffix is not so ambiguous. Insertion of this suffix into the transferentive converb *–taka* (-다가), for example, signals that some action expressed by that converb was not interrupted by another one (as in (33a), with no suffix added) but was accomplished (33b), which clearly corresponds to the semantics of the perfect.

(33) Yeon & Brown (2011: 295)

a. 시장에 가다가 우체국에 들렀어요.

 sicang-ey   ka-taka   wucheykwuk-ey   tull-ess-eyo

market- GOAL go-TRANSF   post station- GOAL   stop-PAST-DECL.POL

'(I) stopped off at the post office on the way to the market. (= while (I) was going to the market).'

b. 시장에 갔다가 우체국에 들렀어요.

 *sicang-ey   ka-**ss**-taka   wucheykwuk-ey   tull-ess-eyo*

market-GOAL go-**PRF**-TRANSF   post station-GOAL   stop-PAST-DECL.POL

'(I) went to the market (first), and then dropped by the post office.'

One more piece of evidence showing that *-ass/-ess* is not just a past tense marker is represented in example (34), where this suffix surfaces in a nominalized form which is essentially irrelevant to tense but absolutely compatible with perfect aspect (cf., for

instance, English perfect infinitive forms like *to have done*).

(34) Baek (2001: 284)

그가 결혼하였음을 모르고 있었다.

*ku-ka   kyelhonha-**yess**-um-ul   molu-ko   iss-ess-ta*

that-NOM   marry-**PRF**-NMLZ-ACC   unaware-CVB   be-PAST-DECL.PLAIN

'(I) was not aware of the fact of his/her marriage.' (lit. 'his/her having married')

The situation with *-ass-/-ess* turns to be even more complicated, when this suffix gets reduplicated within one word, e.g.

(35) Baek (2001: 10)

몸이 아파서 일주일간 병원에 입원했었어요. (지금은 퇴원했지만)

*mom-i   aph-ase   il.cwuil.kan   pyengwen-ey   ipwenhay-**ss**-**ess**-eyo*

body-NOM   ill-CVB one.week.period   hospital-GOAL   hospitalize-**SUF**-**SUF**-DECL.POL

'Since (I) was ill, (I) spent one week in the hospital. (but now I am released   from there).'

Most linguists agree that meaning of the double form *ess.ess* (-었었-) in general corresponds to English past perfect tense (pluperfect), when an event is no longer actual at present and was completed before some moment in the past. But there is still no standard solution for the question of how to interpret this co-occurrence structurally and which role the first suffix *-ess* plays in this form. Some research rejects the idea of splitting this suffix-stacking and claims that the whole cluster is a marker of a 'double past' tense.[29] Nevertheless, in my thesis I follow Sohn's (1995) view that separates perfect aspect and past tense categories. Despite being expressed by the same affix *-ess*, they occupy, however, different slots in the sequential order of the Korean verb template, in which aspect marker always precedes tense.

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29 Also referred to as 'pre-past' (Mazur 2001: 160-164), 'remote past' (Lee 1989), 'past-past' (Martin 2007), or 'past-perfective' (Choi 1965, Na 1971).

2.2.4.1 Perfect aspect

(Prefix) – ROOT – (Voice) – (SH) – (Aspect) – (Tense) – (Modality) – terminal

ending

Being located in the aspect slot, suffix -*ass*/-*ess* can be encountered in non-final clauses, regardless of their conceptual (in)dependency on the main final clause. Though the perfect aspect marker can surface in practically all types of subordinate clauses (causal, conditional, temporal), cases of OAH with this suffix are not too numerous. In example (36), for instance, suffix -*ass*/-*ess* is allowed to precede the causal clause ender -*nikka* (-니까). But it should not be overlooked that the final clause verb stands in the propositive (i.e. mild imperative) mood in which, obviously, no perfect or tense suffixes can appear. Consequently, such types of sentences provide no environment for OAH, since only one conjunct is marked with the corresponding suffix.

(36) Baek (2001: 182)
오래간만에 만났으니까 술이나 한잔 합시다.

    *olay.kan.man-ey   manna-**ss**-unikka   swul-ina   han.can   ha-psita*
long.period.extent-DAT   meet-**PRF**-CAUSAL   alcohol-APRX one.glass do-PROP.FORM
'Long time no see, so let's drink a little bit!'

Predicates of non-final conditional clauses can potentially be marked with the -*ass*/-*ess* suffix as well. But as with the English irrealis mood forms like *would, could* or *were*, the suffix -*ass*/-*ess* can be considered here as conveying not a perfective but rather a subjunctive reading, i.e. when a speaker wishes something that does not really exist, already (37) or yet (38).

(37) Yeon & Brown (2011: 310)
조금만 일찍 갔으면 만날 수 있었을 거예요.

cokum.man	*ilccik*	*ka-**ss**-umyen*	*manna-l*	*swu*	*iss-ess-ul*
a little.only	early	go-IRR-COND	meet-MOD	mean	be-IRR-MOD

	ke-yey-yo
	thing-COP-DECL.POL

'If (I) had just gone a little earlier, (I), probably, could have met (him/her).'

(38) Baek (2001: 303)

이제 그만 집에 갔으면 좋겠어요.

ice	*ku.man*	*cip-ey*	*ka-**ss**-umyen*	*coh-keyss-eyo*
now	that.extent	house-GOAL	go-IRR-COND	good-MOD-DECL.POL

'(I) would like to go home now.' (lit. 'It will be good, if (I) would go home now.')

There is also a more fundamental problem that prevents us from taking cases with the perfect aspect suffix in subordinate clauses into account. Perfectivity is a *referential* category that 'expresses a relation between two time-points, on the one hand the time of the state resulting from a prior situation and on the other the time of that prior situation' (Comrie 1976: 52). Accordingly, in Korean *final* verbs (Fig. 7a), the perfect aspect marker signals accomplishment of the main clause event before some reference time (present for perfect or past for pluperfect) known from the context.

Figure 7a. Main clause perfect aspect
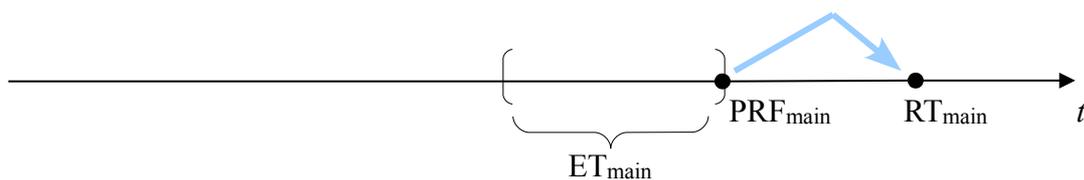
RT – reference time

ET – event time

Whereas in non-final verbs (Fig. 7b), the perfect aspect suffix shows that some process has or had been accomplished before the *main clause event* occurs/occurred.

Figure 7b. Subordinate clause perfect aspect
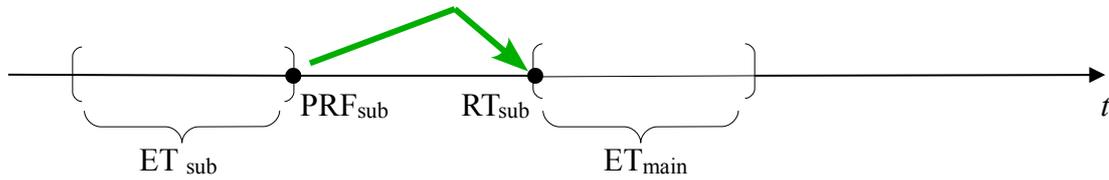
Thus, in subordinate structures (with semantic dependency of one clause on another), the perfect aspect marker of the medial verb (PRF$_{sub}$) refers to a time spot (RT$_{sub}$) that would always precede the main clause time (ET$_{main}$) and, of course, the time referred to by the perfect marker in the main predicate (RT$_{main}$). That means that these two perfect aspect markers are not co-indexed and for this reason they cannot be interpreted in terms of OAH (see Fig. 7c).

Figure 7c. Perfect aspect in a subordinate environment
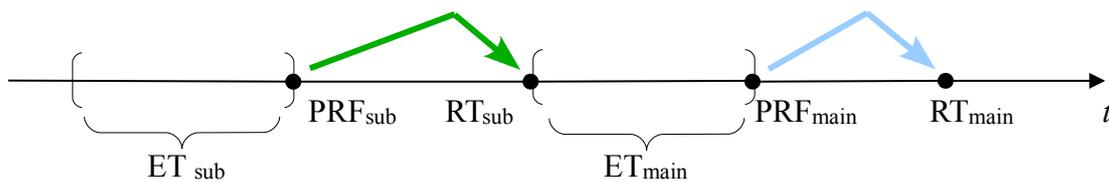
A slightly modified version of example (33b) (repeated here as (39) with pluperfect in the main verb) illustrates how this principle works in a natural language. Here, the perfect aspect marker in the first verb ('*go*') shows that this event occurred before the second event – *dropping by the post*. And the second event, in turn, was accomplished before some reference time in the past, which is indicated by the perfect aspect marker in the main clause.

(39) 시장에 갔다가 우체국에 들렀었어요.

  sicang-ey   *ka-**ss**-taka*   *wucheykwuk-ey*   *tull-ess-ess-eyo*

market-GOAL go-**PRF**-TRANSF   post station-GOAL stop-PRF-PAST-DECL.POL

'After visit to the market, (I) had dropped by the post office.'

Keeping in mind that suffix *-ass-*/-*ess* as a perfect marker can surface in subordinate clauses, let us come back to the genuine environment of OAH and observe how the same marker behaves in coordinate *ko*-structures with no semantic dependency of clauses on each other. Since a coordinated non-final clause is semantically independent from the final one, the perfect marker in the *-ko*-converb refers to the same time point as the perfect marker in the main predicate (see Fig. 8).

Figure 8. Perfect aspect in coordinate environment
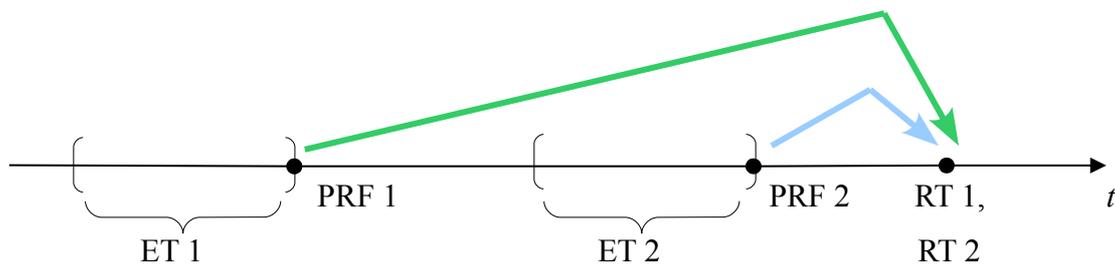
In this case two perfect suffixes are co-indexed and we can check whether they allow optionality of specification. To avoid ambiguity between perfect and past meanings that the suffix *-ass*/-*ess* can potentially bear, we provide a concrete discourse by inserting into the sentence (40) a temporal adverb '*now*' that sets the reference time (present) for both events. The results of the native speakers survey show that the perfect aspect marker is allowed to be optionally kept in the medial verb in a coordinate environment; that constitutes a case for us, a case of OAH.

(40) [34a]

이제 겨울이 다 갔고 봄이 왔다.

*icey   kyewul-i   ta   ka-**ss**-ko   pom-i   wa-**ss**-ta*

now   winter-NOM all   go-**PRF**-CVB   spring-NOM   come-**PRF**-DECL.PLAIN

'Now, winter has completely gone and spring has come.'

2.2.4.2 Past tense

When the suffix *-ass/-ess* occupies the next slot, the tense slot, it acquires a temporal meaning acting as a past tense marker.

(Prefix) – ROOT – (Voice) – (SH) – (Aspect) – (Tense) – (Modality) – terminal

ending

Distribution of tense in Korean complex sentences has been extensively discussed during the last two decades, but mainly in the context of integrating coordination theory into UG and/or testing CSC/ATB generalizations on Korean (Yoon 1994, 1997, Sohn 1995, Rudnitskaya 1998). Based on Principle C of the Government and Binding Theory, *'an R-expression is always free'* (Chomsky 1986: 79), it was argued in Sohn (1995) that no overt tense form is allowed to appear in Korean subordinate clauses (Sohn 1995: 154). It suggests that past tense affix *non-expression* in such structures is *compulsory*. A similar point has been established by Yoon (1994, 1997) who claimed that semantically asymmetric structures (in which inverting the order of conjuncts makes a difference in interpretation) manifest systematic *absence* of tense marking in non-final conjuncts. Meanwhile, the *tensed* non-final verbs can be found only in 'true coordinate structures', where changing the order of clauses does not affect the truth conditions.[30] Indeed, as (41) shows, when a sentence keeps the 'symmetrical' reading, the non-final verbal conjunct can be optionally marked with the past tense suffix (41a). When the same sentence has an asymmetric reading (41b), it is compulsory to omit the past tense affix from the medial conjunct (the emphasising morpheme *-se* (-서) is optionally added to the converb *-ko* to unambiguously signal the temporal sequence of events).

(41) [35a, 35b]
a. 철수는 떠나고 / 떠났고 영희도 떠났다.

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30 Yoon's term 'true coordination' corresponds to parallel notions of 'symmetric coordination' *à la* Schmerling 1975 or 'pseudo-subordination' *à la* Yuasa & Saddock 2002.

*Chelswu-nun   ttena-(ss)-ko   Yenghui-to   ttena-**ss**-ta*

Chelswu-TOP   leave-(**PAST**)-CVB   Yenghui-also   leave-**PAST**-DECL.PLAIN

'Chol-soo left and Yong-hi left, too.'

b. 철수는 떠나고서/* 떠났고서 영희도 떠났다.

*Chelswu-nun   ttena-(*ss)-ko-se   Yenghui-to   ttena-**ss**-ta*

Chelswu-TOP   leave-(***PAST**)-CVB-EMP   Yenghui-also   leave-**PAST**-DECL.PLAIN

'Chol-soo left and then Yong-hi left, too.'

Interestingly enough, medial verbs can optionally contain the past tense marker regardless of the identity of subjects or objects, as long as semantic symmetry remains (ex. 42 – 45).

(42) [36b]: different subjects, different objects

나는 학생시절에 김선생님을 제일 싫어하(였)고 다른 학생들은 최선생님을 싫어**했**다.

na-nun   haksayng.sicel-ey   Kim.sensayng-nim-ul   ceil   silheha-(yess)-ko

I-TOP   school.time-DAT   Kim.teacher-HT-ACC   most   dislike-(**PAST**)-CVB

*talun   haksayng-tul-un   Choy.sensayng-nim-ul   silhehay-**ss**-ta*

other   pupil-PL-TOP   Choi.teacher-HT-ACC   dislike-**PAST**-DECL.PLAIN

'In my school days I disliked teacher Kim most and the other pupils – teacher Choi.'

(43) [37b]: different subjects, same object

나는 학생시절에 김선생님을 싫어하(였)고 다른 학생들은 좋아했습니다.

na-nun   haksayng.sicel-ey   Kim.sensayng-nim-ul   silheha-(yss)-ko

I-TOP   school.time-DAT   Kim.teacher-HT-ACC   dislike-(**PAST**)-CVB

*talun   haksayng-tul-un   cohahay-**ss**-supnita*

other   pupil-PL-TOP   like-**PAST**-DECL.FORM

'In my school days I disliked teacher Kim and the other pupils liked (him).'

(44) [38b]: same subject, different objects

나는 학생시절에 김선생님을 싫어하(였)고 최선생님을 좋아했습니다.

na-nun haksayng.sicel-ey Kim.sensayng-nim-ul   silheha-(yess)-ko

I-TOP   school.time-DAT   Kim.teacher-HT-ACC   dislike-(PAST)-CVB

Choy.sensayng-nim-ul   cohahay-ss-supnita

   Choi.teacher-HT-ACC   like-PAST-DECL.FORM

'In my school days I disliked teacher Kim and liked teacher Choi.'

(45) [39b]: same subject, same object

나는 학생시절에 최선생님을 존경하(였)고 좋아했습니다.

na-nun haksayng.sicel-ey   Choy.sensayng-nim-ul conkyengha-(yess)-ko

I-TOP   school.time-DAT   Choi.teacher-HT-ACC   respect-(PAST)-CVB

cohahay-ss-supnita

   like-PAST-DECL.FORM

'In my school days I liked and respected teacher Choi.'

Thus, it appears to be reasonable to adopt the idea of semantic symmetry as a motivator of optionality for past tense marking, but with one important remark. The criterion of freely permutable order of conjuncts does not always predict coordination. Consider, for instance, sentences with the converb of simultaneity *-myense* (-면서) – 'while', 'at the same time'. Such sentences (ex. 46) being semantically symmetrical (ignoring the pragmatic opposition 'background event' vs. 'main event') allow, however, no past tense suffix in the first clause (Ko & Koo 2009: 495).

(46) Ko & Koo (2009: 495)

그는 달을 보(*았)으면서 나에게 가만히 속삭였다.

 *ku-nun   tal-ul   po-(*ass)-umyense na-eykey kamanhi soksaki-ess-ta*

3SG-TOP Moon-ACC see-(*PAST)-SIM   I-DAT   quietly   whisper-PAST-DECL.PLAIN

'Staring at the Moon, he/she whispered quietly to me.'

Accordingly, we can assume that the past tense suffix can be optionally hosted by non-final verbal stems not simply in semantically symmetrical structures but only in semantically symmetrical *coordinate* structures, keeping in mind that coordination (as defined in the Introduction) allows no temporal relations (i.a. simultaneity) to be expressed overtly by the linking element.

2.2.5 Modality

(Prefix) – ROOT – (Voice) – (SH) – (Aspect) – (Tense) – (Modality) – terminal
ending

Slot 'modality' immediately precedes the last (and obligatory) slot 'terminal ending', and can be potentially occupied by one of two modal suffixes *-kyess-* (-겠-) or *-(u)l(i)-* (-(으)리/-ㄹ), denoting 'the speaker/hearer's attitude or modality toward the content of the sentence' (Sohn 1999: 360). The modal element *-(u)l(i)-* with the basic meaning of probability or predictability is rarely found in final verbs in contemporary language. In Middle Korean, this modal element had been the main purpose/future tense suffix but nowadays the area of its usage is mostly restricted to quotative (47) or relative (48) sentences.

(47) Baek (2001: 283)
경험이 있으니까 잘 해내**리**라고 생각합니다.
   *kyenghem-i   iss-unikka   cal   haynay-**li**-lako   sayngkakha-pnita*
experience-NOM be-CAUSAL well succeed-**MOD**-QUOT   think-DECL.FORM
'(I) think (I) will succeed because (I) am experienced.'

(48) Baek (2001: 167)
이것은 가족에게 보**낼** 선물입니다.
   *i.kes-un   kacok-eykey   ponay-**l**   senmwul-i-pnita*
this.thing-TOP   family-DAT send-**ADN** present-COP-DECL.FORM
'This is a present that (I) am going to send to (my) family.'

So, this suffix may be considered as being in complementary distribution with *-kyess* which is used more productively in main clauses (Sohn 1999: 362). Thereby, the suffix *-(u)l(i)* can hardly be optionally reduplicated in both verbal conjuncts and, therefore, be interpreted in terms of OAH.

In traditional grammars of Korean as well as in some influential textbooks of Korean for foreign learners (e.g. Lee 1989: 91, Lukoff 1993), the suffix *-kyess* used to be referred to as a future tense marker.[31] However, even in the most traditional grammars Korean linguists mention different meanings that this suffix can take depending on the person-category of the sentence subject. They point out that with 1st person subjects (2nd person in interrogative sentences), this suffix performs the role of a 'future' marker, expressing the speaker's volition or intention (ex. 49). In all other cases (especially with 3rd person subjects) the same suffix encodes a conjecture, estimation, possibility or prediction (ex. 50).

(49) Lee (1989: 91)

우리가 내일 사겠습니다.

wuli-ka   nayil   sa-keyss-supnita

we-NOM tomorrow buy-FUT-DECL.FORM

'We will buy (it) tomorrow.'

(50) Baek (2001: 9)

내일은 날씨가 흐리겠다.

　nayil-un   nalssi-ka   huli-keyss-ta

tomorrow-TOP   weather- NOM   be cloudy-EST-DECL.PLAIN

'(I think) tomorrow the weather will be cloudy.'

There are also linguists (e.g. Ko & Koo 2009: 407) who suggest that suffix *-kyess* behaves like suffix *-ass/-ess* : it can have different meanings and act both as a tense or

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31 The suffix *-kyess-* (-겠-) as a grammaticalized form of the causal construction -게 하얏다 - *key ha-yas-ta* (V-ADV do-FOC-LEM) did not start to appear in texts before the end of the eighteenth century (Nam & Ko 2001: 310).

as a modal marker depending on which slot in the morphological template it occupies, 'tense' or 'modality'. However, two suffixes -*kyess* (one in temporal, another in modal reading) can never co-occur within one word (51). In this respect, they differ from contrasting by that suffix -*ass*/-*ess* with which this is perfectly possible (cf. ex. (35)).

(51) [41a, 41b]

*나는 내년에 미국에 유학하러 가겠겠다.

*na-nun naynyen-ey   mikwuk-ey   yuhakha-le   ka-**keyss-keyss**-ta*
 I-TOP   next year-DAT America-DAT study abroad-CVB   go-**SUF-SUF**-DECL.PLAIN

'(intended meaning) Next year I will probably go to America to study.'

A more contemporary and more cross-linguistically oriented view (shared, for instance by Sohn 1995: 46 or by Sohn 1999: 362) claims that there are only past and non-past tenses in Korean. The non-past tense (both for present and future events) is expressed by zero-morpheme, while the suffix -*kyess*- is a purely modal element which has nothing to do with tense or aspect. Indeed, co-occurrence of this suffix with the past tense marker -*ass*/-*ess* as in (52), or with the nominalizer -*m* as in (53) supports the view that -*kyess* has a modal rather than a temporal meaning.

(52) Sohn (1995: 46)

어제 서울에 비가 많이 왔겠다.

  *ecey   sewul-ey   pi-ka   manhi   wa-ss-**keyss**-ta*
yesterday Seoul-DAT rain-NOM   much   come-PAST-**MOD**-DECL.PLAIN

'(I presume that) it rained a lot in Seoul yesterday.'

(53) Baek (2001: 284)

오늘은 약간의 비가 오겠음

 *onul-un   yakkan-ui   pi-ka   o-**keyss**-um*
today-TOP   some-GEN rain-NOM come-**MOD**-NMLZ

'(It seems), it (will be) raining a little bit today.'

It is crucial to note that this view still distinguishes between two modal meanings of -*keyss*: i) intention/volition and ii) presumption/conjecture. These two meanings of -*keyss* correspond to different positions in Cinque's (1999) universal hierarchy of functional heads (54).

(54) Cinque (1999: 76)

Verb < Asp $_{\text{PERF}}$ < Mod $_{\text{VOLIT}}$ < T$_{\text{PAST}}$ < Mod $_{\text{EPIST}}$ < Mood $_{\text{SPEECH ACT}}$

The first meaning of -*keyss*, i.e. intention/volition is more agent-oriented and, therefore, is realized in a lower position (Mod$_{\text{VOLIT}}$) than the past tense (T$_{\text{PAST}}$) projection (essentially related to the speech-time). And in the second meaning (presumption/conjecture), the suffix -*keyss*- is more speaker-oriented (signals the degree of speaker's commitment), has the whole proposition in its scope and, logically, is placed higher than T$_{\text{PAST}}$ (in Mod $_{\text{EPIST}}$). This solves the puzzle of why intuitively more peripheral (and, according to Bybee 1985, more independent) modal element -*keyss* can optionally survive in *subordinate* clauses (55), whereas the - intuitively a little bit more central - past tense suffix -*ess/-ass* undergoes obligatory withdrawing from there (cf. 2.2.4.2). When suffix -*keyss* appears in subordinate clauses (this does not occur very often, cf. Sohn 1999: 362), it conveys a meaning of intention/volition which is more central next to the past tense slot in the functional head hierarchy (cf. (54)). And in the functionally 'higher' epistemic reading, the chances for 'medial' -*keyss* to survive are as low as for the medial past tense suffix -*ess/-ass* (ex. 56).

(55) 정말로 가**겠**으면 가!³²
 *cengmal-lo   ka-**keyss**-umyen   ka*
   truth-INS   go-**MOD**-COND   go
'If (you) really want to go, go then!'

(56) [43a, 43b]

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32 The title of a Korean song written by Lee Nam-i (이남이).

비가 더 강해지(*겠)으면 곳곳에 홍수가 나겠습니다.

   pi-ka   te   kanghayci-(*keyss)-umyen   kos.kos-ey   hongswu-ka

rain-NOM more   strengthen-(*MOD)-COND   place.place-GOAL   flood-NOM

   na-keyss-supnita

happen-MOD-DECL.FORM

'If the rain becomes stronger, there will be a flood everywhere.'

In *coordinate* structures, however, suffix *-keyss* can be easily reduplicated in both readings (presumption in (57) and intention in (58)), constituting by that a case of OAH.

(57) [42b]

내일 전라남도에는 비가 오는 곳이 있(겠)고 강원도에는 눈이 날리는 곳이 있겠습니다.

   nayil   Cenla.nam.to-ey-nun   pi-ka   o-nun   kos-i

tomorrow Cholla.south.province-DAT-TOP   rain-NOM come-ADN   place-NOM

iss-(keyss)-ko   Kangwen.to-ey-nun   nwun-i   nalli-nun   kos-i

 be-(MOD)-CVB Kangwon.province-DAT-TOP   snow-NOM flutter-ADN   place-NOM

iss-keyss-supnita

be-MOD-DECL.FORM

'Tomorrow it will be raining in some places of South Cholla province and snowing in some places of Kangwon province.'

(58) [44b]

내일은 집안 청소를 하(겠)고 모레는 세탁을 하겠다.

   nayil-un   cipan.chengso-lul   ha-(keyss)-ko   moley-nun

tomorrow-TOP house.cleaning-ACC do-(MOD)-CVB day after tomorrow-TOP

seythak-ul   ha-keyss-ta

 wash-ACC do-MOD-DECL.PLAIN

'Tomorrow (I am) going to clean my house and the day after tomorrow – to do the laundry.'

Thus, there are cases with the modal suffix -*keyss* which can be interpreted in terms of OAH but the usage of this suffix in non-final clauses is not restricted to this coordinate environment. The ability to survive in subordinate clauses will result in a more central position the suffix -*keyss* occupies in Korean verb template (cf. section 2.4).

2.3 Grey area of verbal OAH

For some suffixes it is difficult to decide whether their optional reduplication in medial verbs can be treated as a case of OAH, or not. The unclear morphological status of these suffixes is mainly responsible for that. Here, three marginal cases of OAH will be observed: omission of the SH marker -*si*, attributive (adnominal) affix -*n* and the copula -*i*-.

2.3.1 Subject honorific suffix -*si*

In contrast to European subject agreement, it is not obligatory for the subject honorific suffix -*si* (-시-) to be present in non-final coordinated predicates. Consider, for instance, example (59), where SH can be expressed optionally.

(59) [45a, 46a]
그할아버지는 춤도 잘 추(시)고 노래도 잘 부르신다.

   ku. halapoci-nun   chwum-to   cal   chwu-(si)-ko   nolay-to   cal

that. grandfather-TOP   dance-also well dance-(**SH**)-CVB song-also well

*pwulu-**si**-nta*

  sing-**SH**- DECL.PLAIN

'That old-men dances and sings very well.'

Nevertheless, some specific properties of this suffix prevent us from rendering all cases of its optional specification as OAH. In sentences with two different subjects and SH dropped from the medial verb, the second SH suffix in the final verb would refer to

both persons (60a). At the same time, in the full version of this sentence (60b), two suffixes SH$_1$ and SH$_2$ are not co-indexed, i.e. they have different referents: grandfather and grandmother. Therefore, it is not absolutely clear whether the variant with SH$_1$ omitted (i.e. 60a) constitutes a case for us, not violating the principle of affix identity.

(60) [47a, 48a]

a. 할머니$_{(1)}$는 신문을 읽고 할아버지$_{(2)}$는 책을 읽으신$_{(1,2)}$다.

 halmeni$_{(1)}$-nun *sinmwun-ul* *ilk-ko* *halapoci$_{(2)}$-nun* *chayk-ul*

grandmother$_{(1)}$-TOP newspaper-ACC read-CVB grandfather$_{(2)}$-TOP book-ACC

 *ilk-**usi**$_{(1,2)}$-nta*

read-**SH**$_{(1,2)}$-DECL.PLAIN

b. 할머니$_{(1)}$는 신문을 읽**으시**$_{(1)}$고 할아버지$_{(2)}$는 책을 읽으**신**$_{(2, *1)}$다.

 halmeni$_{(1)}$-nun *sinmwun-ul* *ilk-**usi**$_{(1)}$-ko* *halapoci$_{(2)}$-nun* *chayk-ul*

grandfather$_{(1)}$-TOP newspaper-ACC read-**SH**$_{(1)}$-CVB grandmother$_{(2)}$-TOP book-ACC

 *ilk-**usi**$_{(2, *1)}$-nta*

read-**SH**$_{(2, *1)}$-DECL.PLAIN

'Grandmother reads the newspaper and grandfather reads the book.'

Besides, the SH-suffix like another agent-oriented suffix -*keyss* (in volitative reading) can survive not only in a coordinate but also in a subordinate milieu (61, 62).

(61) [49b, 50a]

클릭 안하(**시**)면 후회하**십**니다.

*khullik an-ha-(**si**)-myen hwuhoyha-**si**-pnita*

 click NEG-do-(**SH**)-COND regret-**SH**-DECL.FORM

'If you don't click, you will regret.'

(62) [51a, 52a]

할아버지가 아침에 나가(**셔**)서 저녁에 돌아오**셨**다.

halapeci-ka   achim-ey naka-(sye)-se   cenyek-ey tolao-sye-ss-ta
grandfather-NOM morning-DAT leave-(SH)-CVB evening-DAT return-SH-PAST-DECL.PLAIN
'Grandfather left in the evening, came back in the morning.'

Theoretically, such cases can be also a matter of interest for OAH, but since the scope of my dissertation is restricted to optionality of inflection in coordinate structures, I leave this issue open for future studies.

2.3.2 Adnominal (attributive) ending *-(u)n*

Korean belongs to the range of languages in which absence of relative pronouns on the one hand and rigidity of the '*modifier-before-the-head*' rule on the other, result in not distinguishing between a simple adjectival phrase (e.g. 'busy street') and a relative clause (e.g. 'street which is busy'). Consequently, the same ending *-(u)n* (-은/-ㄴ) can serve both as an adnominal ending for adjectival adjuncts in NP and also as a clause ender in relative clauses. Since adjectives (or relative clause predicates) belong to the class of verbs in Korean, the verbal type of linking (via converb *-ko*) is required for combination of two or more attributive conjuncts. However, according to Lee (1989), it is possible to keep the adnominal *-n* in all adjectival conjuncts, 'linking (relative – *G.N.*) clauses by parataxis' (Lee 1989: 119), i.e. without the *-ko*-ending.

(63) Lee (1989: 119)

 사람이 많**은** 복잡**한** 거리

  *salam-i   manh-**un** pokcapha-**n**   keli*
people-NOM   many-ADN   busy-ADN   street
'crowded and busy street'

If (63) is acceptable, then we can assume that omission of *-n* in the (more) standard version of conjoining with *-ko* in (63') is not an obligatory pattern, but just one of two

possible options.[33]

(63') 사람이 많**고** 복잡**한** 거리

  salam-i   *manh-**ko*** *pokcapha-**n*** *keli*

people-NOM   many-**CVB**   busy-**ADN**   street

At the same time, it should be taken into account that adnominal *-n* occupies the obligatory terminal clause-ender slot in the morphological template (64). Since Korean verbal stems are bound morphemes, we cannot simply remove the verb ender and leave a bare stem behind. As was shown above (63'), the ending *-n* has to be substituted with the connective *-ko*. Hence, in this case we are dealing not with a simple opposition 'identical double marking vs. single marking of one conjunct', but with an opposition 'identical double marking vs. different marking of two conjuncts', which prevents us from regarding such constructions as a regular case of OAH.

(64)

  (Prefix) – **ROOT** – (Voice) – (SH) – (Aspect) – (Tense) – (Modality) – | **terminal ending** |

2.3.3 Copula *-i*

Korean copula *-i* (-이) has equational meaning but unlike the English counterpart 'be', i) *-i* (-이) is not existential and ii) being a bound word, cannot stand alone. The main function of copula in Korean is to link a predicative noun to one of the final sentence/clause enders, which can be attached only to verbs and cannot be added to nouns directly. The status of the Korean copula is still under discussion: some linguists traditionally take it for a 'dummy' linking vowel with no independent meaning (see Lee & Ramsey 2000: 86), others claim that this is a separate word or a clitic (Roh & Chae

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33 Linking of two attributive phrases by parataxes cannot be regarded as default since this model is not attested for conjoining of two participial expressions, e.g. as in [53b]

  * 읽는 쓰는 사람   *ilk-nun*   *ssu-nun* *salam* (intended meaning) 'reading and writing person'
                  read-ADN   write-ADN man

2010), while the most common view (adopted for Korean school grammars) defines copula as a particle or as a predicate case-marker (*seswul kyekcosa* 서술격조사) (see Ko & Koo 2009: 55). If we assume that copula *-i* is a particle or affix (which corresponds to the latter approach), it becomes permissible to interpret cases of copula omission in terms of OAH.

The specificity of copula omission in coordinate *ko*-structures lies in the fact that it is governed not by syntactic but by purely phonological motivations: the copula turns to zero being preceded by a vowel, i.e. *copula → Ø / V_ ko*. Interestingly, the omission is not simply restricted to cases of elision, when copular *-i* meets the identical vowel, as in example (65).[34]

(65) [54a, 54b]
오른쪽은 어머니(**이**)고 왼쪽은 딸**이**다.

olun.ccok-un	*emen**i-(i)**-ko*	*oyn.ccok-un*	*ttal-**i**-ta*
right.side-TOP	mother-(**COP**)-CVB	left.side-TOP	daughter-**COP**-DECL.PLAIN

'The mother is on the right and the daughter is on the left.'

In fact, features of the preceding vowel do not play any role at all: copula omission is not prevented by either different articulatory positioning (as in 66, where the copular high front [i] is preceded by its opposite low back [a]), or by (un-) roundedness (as in (67), where unrounded [i] contacts rounded [u]).

(66) [55a, 55b]
오른쪽은 엄마(**이**)고 왼쪽은 딸이다.

olun.ccok-un	*emma-(i)-ko*	*oyn.ccok-un*	*ttal-**i**-ta*
right.side-TOP	mummy-(**COP**)-CVB	left.side-TOP	daughter-**COP**-DECL.PLAIN

'The mummy is on the right and the daughter is on the left.'

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34 Identical *consonantal* environment (i.e. occurrence of copula *-i* between two [k] phonemes) grants no optional omission: * *copula → Ø / [k]_ ko*.
  [57a, 57b]: *이것은 미역**국고** 저것은 오이국이다.

	i.kes-un	*miyekkwu**k-Ø**-ko*	*ce.kes-un*	*oikwuk-**i**-ta*
	this.thing-TOP	miyekkwuk-**Ø**-CVB	that.thing-TOP	oikwuk-**COP**-DECL.PLAIN

  'This is *miyekkwuk* (seaweed soup) and that is *oikwuk* (cucumber soup).'

(67) [56a, 56b]

아버지는 교수(이)고 나는 학생**이**다.

*apoci-nun   kyos**wu-(i)**-ko   na-nun   haksayng-**i**-ta*

father-TOP   teacher-(**COP**)-CVB   I-TOP   student-**COP**-DECL.PLAIN

'Father is a teacher and I am a student.'

Importantly, the copula is freely restorable in all examples above, its omission is not obligatory. Besides, copula omission can take place in written form as well as in oral speech, showing that this process is not random. These two characteristics meet the requirements of OAH. However, the unclear morphological status of the copula (possible word- or 'dummy vowel' status) partially excludes this case from the OAH discourse.

2.4 Conclusions: in search of correlations

Exploring behaviours exhibited by verbal affixation in complex sentences, the following tendency comes into light: more central (i.e. placed closer to the lexical root) affixes are less separable, whereas more peripheral affixes are easier to drop. Accordingly, the Korean verb template can be divided into four clear zones, or, more traditionally, layers (see Fig. 9).[35]

Figure 9. Functional zones of Korean verb template

Prefix – **Root** – Voice	SH – Perf – Mod VOLIT	Past – Mod EPIST	Ending
zone A	*zone B*	*zone C*	*zone D*

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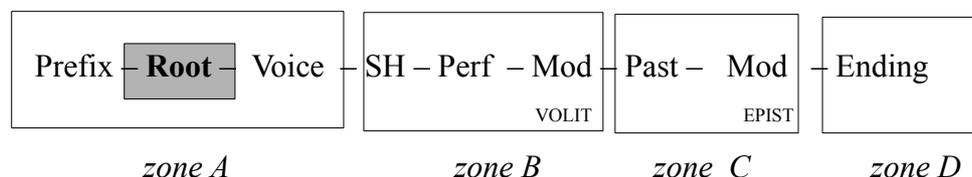
35 Korean verb morphology can be defined as 'layered', since moving an affix from one slot to another would cause changes of its meaning (e.g. the same suffix *-ass-/-ess-* (–았/-었-) being put into the aspect slot, serves as the perfect aspect marker, and in the tense slot – as the past tense marker). At the same time, languages with templatic morphology (like Turkish) allow affix shifting without any change in the meaning.

Affixes of the same layer demonstrate similar behaviour with regard to (in-) separability:

- derivational prefixes and voice suffixes lying immediately next to the lexical root (on the left and right) cannot be dropped at all (zone A)

- central suffixes from zone B (subject honorific suffix -*si,* perfect aspect marker -*ass*/-*ess* and the volitative suffix -*keyss*) are separable from the root and enjoy optionality of specification (i.e. non-obigatoriness of omission) both in coordinate as well as in subordinate non-final predicates[36]

- the past tense suffix -*ass*/-*ess* and the modal suffix -*keyss*- (in epistemic reading) form zone C that precedes the extreme periphery of the Korean verb. Affixes from this zone can optionally survive in coordinated non-final clauses but undergo obligatory omission in a subordinate milieu

- finally, the speech-level/sentence type-specifying sentence enders occupy the pole position in the verb template. These affixes cannot surface in either coordinate or subordinate non-final clauses: they should be necessarily substituted there with various clause-enders (converbs), with which they form the extremely peripheral zone D

Thus, the data from Korean seem to support the functionalist hypothesis maintaining that

> ...the degree of morpho-phonological fusion (i.e. (in)separability – *G.N.*) of an affix to a stem correlates with the degree of semantic relevance of the affix to the stem. The semantic relevance of an affix to a stem is the extent to which the meaning of the affix directly affects the meaning of the stem (Bybee 1985: 4).

According to this hypothesis, 'morphemes expressing meanings highly relevant to verbs will be more likely to fuse with verbs than morphemes whose meanings are less relevant' (Bybee 1985: 38). Indeed, affixes from zone A are very closely related to the semantics of the verb. The only function of Korean prefixes is to add some extra lexical

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36 Again, such optionality does not automatically result in OAH, for which the presence of the identical suffix in the final conjunct is needed.

features to the basic meaning of the verbal root (see part 2.2.1). Valency-increasing or decreasing voice suffixes also belong to operators that essentially form (or modify) the nuclear meaning of a predicate, determining its argument structure. Hence, it is not surprising that affixes of this zone are completely inseparable from the hosting root.

At first glance, zone B appears to be controversially heterogeneous, since one can find here the perfect aspect marker *-ass/-ess*, definitely an operator over nucleus (i.e. a predicate) 'concerned with the structure of the narrated event itself' (Foley & Van Valin 1984: 209). Meanwhile, aspect is an inflectional category (in contrast to voice) and, as Hopper (1979) argued, it simply indicates how the verb should be considered in the context of the whole discourse, leaving the basic meaning of the verb unaffected. In this respect the perfect aspect suffix is similar to *agent*-oriented operators like SH and volition markers which express 'certain conditions on the agent with regard to the main predication' (Bybee 1985: 166) and do not change the semantics of the verb. This intermediate character lets these suffixes be specified optionally in non-final clauses but at the same time, they do not undergo obligatory omission in a subordinate environment.

Specifically *agent*-oriented categories of zone B are followed by the *speaker*-relevant categories (tense and epistemic modality) placed in zone C. In terms of the Reichenbachian system, "tenses determine time with reference to the time point of the act of speech" (Reichenbach 1966: 287-288), i.e. tense is a referential category that specifies a relation between an event time and speech time. Since speech-time is a moment, when a speaker produces his/her speech, it allows us to refer the tense suffix *-ass/-ess* as a *speaker*-oriented operator. Epistemological modality is, undoubtedly, also a *speaker*-oriented category 'claimed to reflect the speaker's evaluation of and attitude towards the content of the expressed proposition' (Siewierska 1991: 39), i.e. it shows the speaker's (un-)certainty about the truth of the proposition. Operators of this layer tend to have the whole proposition in their scope, not parts of it. For this reason, it is *obligatory to drop* markers of past tense and epistemic modality in a subordinate environment, but they still can be optionally recuperated in coordinated non-final clauses.

The outermost zone D hosts *addressee-oriented* illocutionary force (speech-act)

operators to be chosen with respect to the social status of both participants in the dialogue, the speaker and his/her listener. Regardless of conjoining type (co- or subordination), suffixes of this layer have no chance to survive in non-final clauses: they can (and must) appear in the sentence only once, in the final predicate.

Figure 10. Interrelation of affix function with (in)separability

lexical	*agent-oriented*	*speaker-oriented*	*addressee-oriented*
Prefix – **Root** – Voice	SH – Perf – Mod	Past – Mod	Ending
	VOLIT	EPIST	SPEECH ACT
zone A	*zone B*	*zone C*	*zone D*
obligatorily inseparable	optionally separable	optionally separable in coordination, obligatory – in subordination	obligatorily separable
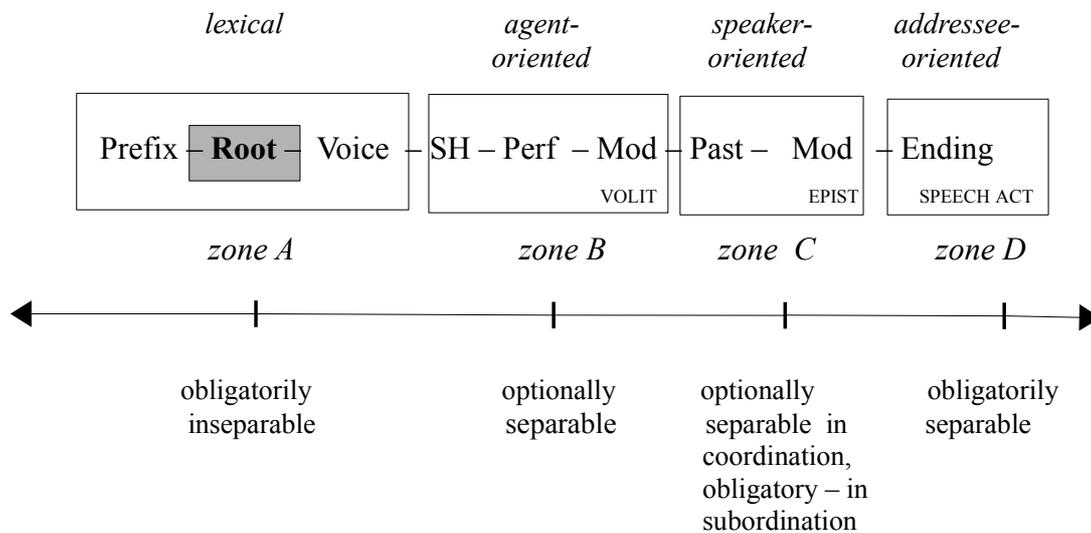
Thus, the behaviour of Korean affixes in different conjoining environments suggests that (in)separability of affixes (if not cross-linguistically, then, at least, in Korean) is a gradual value varying from obligatory marking via optional affixation to obligatory omission. This supports the hypothesis proposed in the Functional Grammar framework claiming that more remote (from the lexical root) affixes are more separable than inside ones.

2.5 Summary

In this chapter, I surveyed cases of verbal OAH in Korean. Basing my argument on the essential requirements of OAH (coordination, affixation, regularity, identity and optionality), I defined the verbal affixes that can be interpreted in terms of OAH. For

this purpose, I first provided some background information about the model of verbal conjoining that Korean employs. I showed that this model can be classified as 'chaining' (Longacre 1985) or 'absolute de-ranking' (Stassen 1985), since no equally ranked independent verbs can be conjoined (or coordinated) in Korean. The chaining nature of Korean syntax tends to delete suffixes from non-final verbs obligatorily. Comparing morphological structures of final and non-final predicates, I found out which affixes can be optionally reduplicated in both verbal conjuncts. Empirical data show that inflectional suffixes -*ass*/-*ess* and -*keyss* allow OAH in coordinate structures. Some suffixes whose morphological status is not clear (SH suffix -*si*, adnominal ending -*n* or copula -*i*) may be also viewed as a subject for OAH. Though only coordination provides a genuine milieu for OAH, we observed also how Korean verbal inflection behaves in a subordinative environment. It was detected that the morphological array of the Korean verb can be divided into four layers judging by (in)separability of affixes from the lexical root:

- affixes of zone A cannot be omitted in any environment
- affixes of zone B are optionally separable and can survive in subordinate clauses
- affixes of zone C are optionally separable in coordinate clauses and must be dropped in subordinate ones
- affixes of zone D must be necessarily substituted in any non-final clauses and are obligatory to present in final clauses

Chapter 3

Optionality in specification of medial nominal affixes

In contrast to verbs, Korean nominal roots are predominantly free morphemes which can stand alone and do not necessarily need further affixation.[37] The absence of obligatory affix slots suggests that Korean nominal inflection does not have a templatic nature and, consequently, our analysis of optional hosting for nominal inflection also cannot be based on purely structural principles.[38] In order to understand the inner mechanism of OAH for nominals, I will continue to follow the general concept (applied for VPs in the previous chapter) suggesting that not only properties of hosting stems are important for optionality but that properties of attached items, i.e. properties of affixes, also play some role and should be also taken into consideration. On account of this, I will first outline a range of morphological units relevant for the study. Then, I will survey the model of Korean nominal conjoining and explore its role for OAH. Finally, I will find out which pieces of nominal inflection meet the requirements of OAH, what is the inner mechanism of optionality for medial nominal inflection and whether it is possible to elaborate a unified approach that accounts for both nominal and verbal OAH.

3.1 Korean nominal inflection

3.1.1 Morphological status: what is relevant for the study

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[37] The only exception comes from a group of defective nouns like *kes* (것) - 'thing', *pun* (분) – 'person', *tey* (데) - 'place' etc. that should be preceded by some attribute: a demonstrative pronoun, a relative clause or another noun. But even these syntactically dependent nouns can be regarded as morphologically 'free' forms, since they do not require any sort of obligatory inflection.

[38] Though there were attempts to represent Korean nominal roots as bound forms with templatic morphology, this lexicalist approach seems to be not very promising in the light of the strong counter-argumentation presented in the generative framework (for the lexical-syntactic debate on this issue see Cho & Sells 1995, Sells 1995, 1997 and Yoon 1995, 2005).

Korean nominal inflection poses a problem for the phenomenon of optional affix hosting in the sense that there is still no agreement between linguists on the question 'What can be called an *affix* in Korean?' Affixes (in particular, inflectional affixes) are traditionally (e.g. in Zwicky & Pullum 1983) understood as phonologically integrated units normally inseparable from the hosting root/stem and assigning properties only to a selected word-class (for instance, to nouns only, or to verbs only). From this point of view, even such genuine inflectional items as case-markers can hardly be considered as affixes in Korean. The nominative case-marker *-ka* (-가), for instance, is perfectly separable from the hosting root, especially in coordinate structures, where it not just can, but MUST be removed from the first conjunct, as (68) shows.

(68) [12a, 12b]

이방에 의자(*가)와 책상이 많아요.

   i.pang-ey   *uyca(*-ka)-wa*   *chayksang-i*   *manh-ayo*

this.room-LOC   chair (*-NOM)-CONN   desk-NOM   many-DECL.POL

'There are many chairs and desks in this room.'

In (69) the accusative case-marker *-lul* (-를) is non-canonically attached to the verbal form *-a*/*-e* (아/어), which is not very typical for highly selective inflectional affixes, quite specific in their selections of hosting stems (Zwicky & Pullum 1983: 503).

(69) Yoon (1995: 343)

먹어를 보았다.

 mek-e-lul   *po-ass-ta*

eat-CVB-ACC   see-PAST-DECL.PLAIN

'Tried eating.'

Moreover, some case-markers (like the genitive in (70a, b)) do not alternate in different phonological environments (after vowels and consonants), as one would expect from 'normal' affixation.

(70) Ihm, Hong & Chang (1999: 86)

a. 이건 누구의 안경이에요?

    *i.ke-n nwuk<u>wu</u>-**uy** ankyeng-i-eyyo*

this.thing-TOP   who-**GEN** glasses-COP-QU.POL

'Whose eye-glasses are these?'

b. 그분의 직업이 뭐에요?

  *ku.pwu<u>n</u>-**uy**   cikep-i   mwe-ey-yo*

that.person-**GEN** occupation-NOM what-COP-QU.POL

'What is his occupation?'

    On the other hand, the Korean case-markers cannot be regarded as pure clitics, since some of them are phonologically dependent from the stem (e.g. *-i/-ka* for the nominative, *-lul/-ul* for the accusative or *-lo/-ulo* for the instrumental), may mark each member of a coordinate structure (like the ablative in (3), repeated here) or even precede a lexical item (the delimiter 'only'), as in (71).

(3) [7a, 8a, 9a, 9b, 16b, 18a ,19b]

그아이가 아버지(에게서)와 어머니에게서 선물을 받았다.

    *ku.ai-ka   apeci(-**eykeyse**)-wa emeni-eykeyse senmwul-ul   pat-ass-ta*

that.child-NOM father-(**ABL**)-CONN   mother-ABL   present-ACC   get-PAST-DECL.PLAIN

'The child got a present from father and mother.'

(71) Yoon (2005: 255)

소금으로만 김치를 해라 !

*sokum-**ulo**-man kimchi-lul   hay-la*

  salt-**INS**-only   kimchi-ACC   do-IMP.PLAIN

'Make kimchi (cabbage pickles) only with salt!'

Korean linguistics traditionally refers to nominal inflection as *cosa* (조사, 助詞) – 'particles' (lit. *help* + *speech-part*) grouping them into three main classes (see Sohn 1999: 213, Ko & Koo 2009: 149):

1. case particles – *kyek.cosa* (격조사)

2. auxiliary particles (or 'delimiters') – *poco.cosa* (보조조사)

3. connective particles – *cepsok.cosa* (접속조사), or *yengyel.cosa* (연결조사)[39]

In theory, the case particles behave more like verbal endings (*kwulcel.emi* – 굴절어미), i.e. more 'inflectionally': they are supposed to specify grammatical relations. The auxiliary particles bear more resemblance to independent words and add some particular meaning to nouns (Ko & Koo 2009: 182). But sometimes it is quite difficult to distinguish between auxiliary and case-particles, since the latter can perform not entirely syntactic duties, too (this phenomenon will be observed in more detail in Chapter 4 of the dissertation; see also Park (1995), Han (1999) for an RRG-approach to this problem). As for the connective particles, the situation appears to be no less confusing. The connective particle *-wa/-kwa* (-와/-과), whose main function is to link two nouns, is recognized by many linguists as a connective case-marker naturally belonging to the first group of case-particles (Sohn 1999: 339, Yeon & Brown 2011: 116).[40] The same concerns even the genitive case-marker *-uy* (-의) that is also believed to fall within the class of 'connective particles' (see Ihm, Hong & Chang 1999: 66).

Some linguists maintain that 'the only suffix which may be considered inflectional in nouns is the plural *-tul* (-들)' (Sohn 1999: 231), whereas all other inflectional units cannot be classified in terms of *clitic vs. affix* dichotomy and should be regarded as independent words, postpositions or phrasal affixes. But even the status of the plural marker *-tul* is not absolutely transparent. Though traditionally this element was called

39 Some linguists (e.g. Lee & Ramsey 2000: 139 or Yeon & Brown 2011: 94) recognize only two classes: case-particles and special particles (*thukswu.cosa*, 특수조사).
40 There is also a view that distinguishes between different uses of this marker: in structures with reciprocal verbs (like *marry, fight, meet, resemble* etc.) the *-wa/-kwa* element is considered as an auxiliary adverbial particle; with all other verbs – as a connective particle (e.g. Ko & Koo 2009: 155, 158).

cepmisa (접미사, 接尾辭) - 'suffix', a phenomenon of 'Plural Copying', well-known in Korean linguistics (when the plural marker is optionally 'copied' to such non-subject elements as adverbs (72) or complementizers (73)), triggered recent tendencies associating *-tul* with *cosa*, i.e with particles (Kim 1996), or, at least, distinguishing between different uses of this item (Ko 1999).

(72) 어서(들) 오세요!

    ese-(tul)   *o-sey-yo*

promptly(-**PL**) come-SH-IMP.POL

'Welcome (everyone)!'

(73) 앉아서(들) 이야기를 한다.

anc-ase-(tul)   *iyaki-lul* *ha-nta*

 sit-CVB-(**PL**) talk-ACC   do-DECL.PLAIN

'(They) sit around and talk!'

Hence, in Korean 'the status of the grammatical case markers vis-à-vis the postposition/suffix distinction is controversial' (Blake 2001: 119). To escape this terminological controversy, I will include in my study all morphological units that encode *inflectional categories*, i.e. case and number markers, ignoring the question of their potential affix or non-affix status.[41]

3.1.2 Overview of items

In this section some prominent features of Korean nominal inflective suffixes will be observed.

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41 The grammatical categories of 'animacy/inanimacy' and 'person/non-person' (i.e. 'human/non-human') are recognized in the Russian tradition of Korean linguistics as 'form-building', i.e. inflectional, too (Kholodovich 1954: 50, Mazur 2001: 100). However, these categories do not posses their own paradigm and are represented in grammar only through the different *case* declension.

3.1.2.1 Plural marker -tul

Plurality used to be considered as a prototypically facultative category in Korean (Greenberg 1966: 28). Indeed, a bare nominal root may have both singular or plural readings even without overt plural marking. For instance, *haksayng* (학생) can be interpreted as 'student' or 'students' depending on the context in which this word occurs. Accordingly, to specify plural number with the suffix *-tul* is not always necessary: this can be made in order to avoid ambiguity and produce a clear plural meaning.

As it was mentioned above (section 3.1.1, ex. (72) and (73)), it is not only nouns that *-tul* can be added to. In this case it is considered to be a particle, not a suffix (Sohn 1999: 232). The plural *-tul* can be also found in structures of 'unfinished enumeration' (*à la* Kholodovich 1954: 262), where it marks the last element in the list of single items (74). In this case *tul* is considered to be a defective noun, showing that the list of items is not closed and other similar objects can be added to those previously mentioned. The meaning of *-tul*, then, corresponds to English '*and so on*', '*and things like that*', '*et cetera*'.

(74) Martin (2007: 829)

서울, 부산, 평양들 큰 도시에는 전차가 있다.

 *sewul pwusan phyengyang-**tul***   *khu-n tosi-ey-nun*   *cencha-ka*   *iss-ta*

Seoul Pusan   Ph'yongan-**PL** big-ADN city-LOC-TOP streetcar-NOM be-DECL.PLAIN

'There are street-cars in the large cities such as Seoul, Pusan, Ph'yongan, and so on.'

A similar function is performed by this marker, when it occurs with words whose semantics implicitly presupposes plurality, e.g. with the personal pronoun *wuli* (우리) – 'we' : *wuli-tul* (우리들). In this case *-tul* acts as 'an indication that the noun to which it is attached is a part of a group or is together with others' (Lee & Ramsey 2000: 349).

In its basic, 'suffixal' reading *-tul* tends to mark animate entities (Song 1975: 542-543, Ko & Koo 2009: 84, Yeon & Brown 2011: 121), but the addition of this suffix to inanimate or abstract objects is not regarded as absolutely unacceptable, especially in North Korea (Ko & Koo 2009: 90).

3.1.2.2 Case-markers

Despite all discussions about what can be called a 'true' case-marker in Korean, the following ten values are commonly recognized by most linguists as belonging to the Korean case paradigm :

Nominative	*-i/-ka* (-이/-가)
Accusative	*-ul/-lul* (-을/ -를)
Genitive	*-uy* (-의)
Dative (inanimate)/ Goal	*-ey* (-에)
Source (inanimate)/ Locative	*-eyse* (-에서)
Dative animate	*-eykey* (-에게)
Ablative (animate source)	*-eykeyse* (-에게서)
Instrumental	*-lo/-ulo* (-로/-으로)
Vocative	*-a/-ya* (-아/-야)
Connective/comitative	*-wa/-kwa* (-와/-과)

Unlike many other languages, the Korean **nominative** is not a 'default' case with zero-marking. The main function of this alternating case-particle (*-i* – after consonants, *-ka* –after vowels) is to mark subjects, especially rhematic subjects and subjects of embedded clauses.[42] Since Korean enjoys an overt **accusative** marker *-(l)ul*, neither nominative nor accusative (nor any other) case can be considered a citation (dictionary) form, which is typologically not very common for nominative-accusative languages.[43]

The **genitive** case, usually functioning as possessive (Sohn 1999: 327), is encoded by the particle *-uy*. In contemporary Korean it is an adnominal case showing syntactic dependency of one noun on another. In Middle Korean, however, this marker was used as an adverbial case as well (Lee & Ramsey 2000: 291, Ko 2009: 101-102).[44]

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42 The nominative case-marker *-i* had been not alternating till the sixteenth century, when its allomorph *-ka* started to appear in Late Middle Korean texts (Sohn 1999: 50, Lee & Ramsey 2000: 290). The origin of *-i*, however, is also not absolutely clear: as Sohn noted, 'prehistoric Korean developed the nominative case particle *-i* which has not been reconstructed as a proto-Altaic form' (1999: 42).

43 Since the nominative case-marker is not a null-morpheme in Korean, Kholodovich 1954: 54 also adds the 'base case' (materially equivalent to the bare nominal base/root) to the Korean case paradigm.

44 According to Ahn 1988: 8, it is still not completely ungrammatical for some native speakers to mark relative clause subjects with the genitive case.

The **inanimate dative (goal)** case-marker *-ey* shares the phonetic realization – [e] with the genitive. Except for the central function of target/direction encoding, the inanimate dative can be also used for expression of time extent or static location (with existential verbs like *to be*, (*to be*) *absent*, (*to be*) *many* etc.). The 'true' dynamic **locative** is formed by the combination of the dative *-ey* with the morpheme *-se* (서), 'whose meaning may be equated with "inception" or "dynamicity" ' (Sohn 1999: 334). The resulting particle *-eyse* (-에서) denotes location or source for action verbs and can bear meanings identical to the English prepositions 'in' and 'from'.

The origin of the **animate** variant of the **dative** – *-eykey* can be traced to Middle Korean. At that time it was a combination of the genitive *-oy/-uy* (ᅵ/ᅴ) with a locative pronoun *-ku(ng)ey* (-그에/긍에) – 'at that place', i.e. *-oy/-uy* + *ku(ng)ey* => *oykey* => *-eykey* (ᅵ/ᅴ + 그에 => ᅵ게 => 에게) (Lee & Ramsey 2000: 292, Ko 2009: 102). So, technically speaking, the Middle Korean animate dative case had rather a directional-locative reading 'to/at someone's place'. Nowadays, this is a completely grammaticalized form used to encode an animate (normally, a human) recipient. However, the tendency to associate people with the place they represent or belong to (most probably motivated by the principles '*less direct = more polite*' and '*social status before individuality*') remains even in the contemporary language, in which personal pronouns (esp. 2nd person) are usually substituted with the locative ones (75 – 77).

(75) Lee & Ramsey (2000: 227)
이개가 **댁**의 개인가요?

  i.kay-ka   **tayk**-*uy*   *kay-i-nkayo*
this.dog-NOM   **house** (defer.)-GEN   dog-COP-QU.POL
'Is this Your dog?'

(76) **거기** 어딥니까?
 keki   *eti-pnikka*
there where-QU.FORM
'(on the phone) Who is speaking?' (lit. 'Where is that place?')

(77) 그쪽 물어보세요.

ku.ccok   mwul-e po-sey-yo

that.side ask-CVB see-SH-IMP.POL

'(Try to) Ask them.'

In the same vein as its inanimate counterpart, the **animate locative** (or **ablative**) case is also composed by the addition of -*se* to the basic dative form (-*eykey* + -*se* = -*eykeyse*). The major function of this particle is to denote the role of a human (rarely animal) source. It was noted by many researches that the morpheme -*se* is often omitted in colloquial speech (e.g. in phrases with transitive verbs), so the dative and ablative can be distinguished only by context. In (78), for instance, only the semantics of the verb 'to receive' help us to interpret the meaning of the suffix correctly.

(78) Yeon & Brown (2011: 111)

민호에게_ 선물을 받았어요.

*Minho-**eykey**_   senmwul-ul   pat-ass-eyo*

 Minho-**SUF**   present-ACC receive-PAST-DECL.POL

'(I) received a present **from** Minho.'

From a cross-linguistic point of view, the main function of the **instrumental** case is to mark tools and vehicles (Lehmann & Shin 2005: 20), which are prototypically inanimate entities. For this reason, it is believed that 'if an instrumental marker can mark an animate noun, this is normally a comitative or agentive use' (Narrog 2009: 595). The Korean instrumental case, however, does not totally follow this tendency. First, Korean employs separate tools for instrumental and comitative (see below, section 3.2). As for the agentive use, the Korean instrumental, being attached to nouns denoting animate entities, can express 'the function or capacity in which something is being used' (Yeon & Brown 2011: 113), i.e. rather a patient meaning (79).

(79) Yeon & Brown (2011: 114)

민수가 유미를 애인**으로** 생각해요.

 *Minswu-ka   Yumi-lul   ayin-**ulo**   sayngkakhay-yo*

 Minsoo-NOM   Yumi-ACC lover-**INS**   think-DECL.POL

'Minsoo thinks of Yumi as his girlfriend.'

Furthermore, the marker -(*u*)*lo* can be also added to adverbs (e.g. *melli-lo* (멀리로) – distantly-INS or *pothong-**ulo*** (보통으로) – usually-INS), which are considered as non-typical hosts for the instrumental case (Narrog 2009: 596).

    Unlike other cases, the **vocative** does not express dependent-to-head-relations and for this reason vocatives have not always been considered cases (Hjelmslev 1972 [1935]: 4). If a language possesses a vocative case, it is generally used 'as a form of address, i.e. calling for the addressee's attention by naming them in an explicit way' (Daniel & Spencer 2009: 626). Hence, it is not surprising that the Korean vocative morpheme -*(y)a* is mainly suffixed[45] to personal given names, or to plural animate nominals, like 애들아! *ay-tul-a !* (child-PL-VOC) – 'You, children!' The specificity of the Korean vocative lies in the fact that its usage is restricted in the modern language to non-honorific speech-levels (plain, intimate (*panmal*), familiar), i.e. only when social inferiors or intimates with equal social status are addressed.

    The **connective** (**comitative**) case-marker -*wa*/-*kwa* (-와/-과) is used for nominal conjoining and performs a role analogous to the English conjunctions 'and' and 'with'. Since the nature of this case fundamentally determines the nature of Korean nominal conjoining in general, properties of the connective case are extremely significant for our study, so they will be observed in more detail separately, in the next section.

3.2 Properties of Korean nominal conjoining

3.2.1 Hierarchy of conjuncts

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45 Postpositive vocative particles are considered as typologically rare (Daniel & Spencer 2009: 630).

In the absence of cross-categorial conjunctions as a separate class of independent words, Korean elaborated different strategies for nominal and verbal conjoining. The verbal conjoining normally employs specific non-finite converbal forms (i.e. non-universal, category-sensitive endings, each of which indicates a particular type of interclausal relations) to link both VPs and clauses (see Chapter 2). For the nominal model of conjoining another linking element, the connective case-marker (postposition) -*wa*/-*kwa* (-와/-과), is used. This alternating case-marker (-*wa* after vowels, -*kwa* after consonants) is a bound item occupying a position between two conjuncts and morphologically belonging to the first one (ex. 80): i.e. the pattern of Korean nominal conjoining corresponds to the **[A co] [B]** type in Haspelmath's classification of coordination patterns (2004: 6).

(80) 연필**과** 종이
*yenphil-**kwa** congi*
 pencil-**CONN**   paper
'pencil and paper'

Though Korean has elaborated different tools for verbal and nominal linking, it seems that the hierarchical head-final principle of conjoining holds for both models, in which non-final conjuncts are always subordinated to the final one. First, as we have seen above, the equal marking of nominal conjuncts is not attested for some pieces of inflection: in (2), repeated here, the accusative case-marker -*ul* (-을) undergoes obligatory withdrawing from the first noun.

(2) [1b, 2b, 3a, 3b]
영수가 책(*을)과 신문을 읽는다.
  Yengswu-ka   chayk(-**ul**)-kwa   sinmwun-**ul**   ilk-nunta*
Yeongsoo-NOM   book(*ACC)-CONN newspaper-ACC   read-DECL.PLAIN
'Yeong-soo reads the book and the newspaper.'

Moreover, even in structures which allow equal ranking of conjuncts, the head-final principle is kept unchanged. Consider, for instance, example (81) with the ablative case-marker *-eykeyse* (-에게서). This suffix can mark both members of the conjoined pair (81a) with the meaning corresponding to English '*from father and from mother*'. It is also possible to drop this suffix from the first conjunct and keep it only in the second one (81b). But if we mark the first noun with this suffix, the final conjunct has to be suffixed as well. Otherwise, we will get an ill-formed structure as in (81c) (cf. English *from father and _mother* vs * _ *father and from mother*).

(81)
a. [7a, 9a, 16b, 18a, 19b]
그아이가 아버지**에게서**와 어머니**에게서** 선물을 받았다.

　*ku.ai-ka　apeci-**eykeyse**-wa emeni-**eykeyse** senmwul-ul　pat-ass-ta*

that.child-NOM father-ABL-CONN　mother-ABL　　present-ACC　get-PAST-DECL.PLAIN
'The child got a present from father and mother'**.**

b. [8a]
그아이가 아버지와 어머니**에게서** 선물을 받았다.

　*ku.ai-ka　　apeci-wa　emeni-**eykeyse** senmwul-ul　pat-ass-ta*

that.child-NOM father-CONN　　mother-ABL　　present-ACC　get-PAST-DECL.PLAIN

c. [8b]
* 그아이가 아버지**에게서**와 어머니 선물을 받았다.

　*ku.ai-ka　apeci-**eykeyse**-wa emeni　senmwul-ul　pat-ass-ta*

that.child-NOM father-ABL-CONN mother　present-ACC　get-PAST-DECL.PLAIN
(intended meaning) 'The child got a present from father and mother'**.**

In general, while affixing of the non-final conjunct always implies affixing of the final one, the converse does not hold. This supports the view that Korean nominal conjoining has subordinative head-final character.

3.2.2 Tendency to 'WITH-strategy'

This hierarchical principle of nominal conjoining can possibly be motivated by specific properties of the linking element *-(k)wa* which seems to be rather comitative than coordinative by nature. The differences between these two conjunctional strategies are presented in Table 2.

Table 2. Coordinate and comitative strategies
(Stassen 2000: 21)

COORDINATE STRATEGY	**COMITATIVE STRATEGY**
NPs have the same structural rank	NPs differ in structural rank
NPs form a constituent	NPs do not form a constituent
Plural/dual agreement on verbs	Singular agreement on verbs
Unique coordinate particle	Unique comitative particle

By the first parameter Korean nominal conjoining demonstrates clear comitative properties. As has been shown in the previous section (3.2.1), two nominals linked by the *-(k)wa* particle form a hierarchy with the dominating final and subordinated non-final conjuncts.

The next parameter – (non)-constituency of the NP can be tested by application of the CSC/ATB rule allowing no extraction for true coordinate structures. We have already discussed in the Introduction that this constraint does not work properly for Korean verbal &Ps. Nominal conjoining also grants no support for the universality of this principle. Since Korean is a *wh-in-situ* language, substitution of one conjunct with a wh-element does not conflict with grammaticality (as in (82a)), resembling 'echo-questions' in European languages in this respect. Technically it is also possible to raise the wh-element to the 'normal' specifier position (82b) but in this case the structure will be undistinguishable from its comitative variant 'Who went to the USA **with** teacher Choi?' (82c). The connective and comitative readings of the particle *-(k)wa* are determined only positionally: being attached to the second conjunct (*A   B-kwa*) the particle means 'with', and in the medial position between two conjuncts (*A-kwa B*) it

means 'and'. So, when we substitute the second conjunct with a *wh*-word and move it to the sentence-initial position (*wh A-kwa _*), it is not clear (out of context) whether the connector was generated in the position between two conjuncts (and means 'and'), or it occupies the right periphery in the structure originally (and has the 'with'-reading).

(82)

a. 'and'-structure, wh-element in-situ: [58a]

김선생님**과 누가** 미국에 가셨어요?

*Kim sensayngnim-**kwa** **nwu-ka** mikwuk-ey ka-sye-ss-eyo*

Kim teacher-**CONN** **who-NOM** USA-GOAL go-SH-PAST-QU.POL

'(lit.) Teacher Kim and who went to the USA?'

b. 'and'-structure, wh-element fronted: [59a]

누가 김선생님**과** 미국에 가셨어요?

 *nwu-ka Kim sensayngnim-**kwa** mikwuk-ey ka-sye-ss-eyo*

who-NOM Kim teacher-**CONN** USA-GOAL go-SH-PAST-QU.POL

c. 'with'-structure, wh-element in-situ: [60a]

누가 최선생님**과** 미국에 가셨어요?

 *nwu-ka Choy sensayngnim-**kwa** mikwuk-ey ka-sye-ss-eyo*

who-NOM Choi teacher-**COM** USA-GOAL go-SH-PAST-QU.POL

Thus, we can maintain that judging by the constituency principle, Korean chooses the comitative strategy for nominal conjoining model (or, at least, this model cannot be defined as completely coordinative).[46]

The only characteristic that slightly deviates from this general line is the criterion of verb agreement. We have mentioned already in section 2.2.3 that Korean does not posses a subject agreement system in the European sense of this word. However, some

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46 That correlates with Stassen's view maintaining that 'in quite a few languages a differentiation between these two strategies cannot be stated with razor-sharp precision … The contrast between the Coordinate Strategy and the Comitative Strategy must be regarded as a formulation of the extreme, and focal positions, on the continuum' (2000: 21).

analogy of plural vs. singular agreement can be detected in structures with the subject honorific suffix -*si* (-시). In *with*-structures (i.e. in structures where the main actor constitutes a single subject, and the background actor is a PP marked with an oblique case), the suffix -*si* should be attached to the verbal stem, if the main actor is a social superior for speaker. The social status of the second actor does not play any role (ex. 29b, repeated here as 83a). In *and*-structures, i.e. in structures with *two* main actors, one of whom is a social inferior for the speaker (e.g. a child), the suffix -*si* cannot be added to the collective predicate (29a, repeated here as 83b). That (to some degree) corresponds to the plural agreement and, consequently, to coordinate strategy.

(83) [33a, 33b]

a. 할아버지는 손자**와** (같이) 극장에 가**셨**습니다.

  halapoci-nun   *sonca-**wa**   (kathi)   kukcang-ey   ka-**si**-ess-supnita*

 grandfather-TOP   grandson-**COM** (together) theatre-GOAL   go-**SH**-PAST-DECL.FORM

'Grandfather went (deferent.) to the cinema (together) with his grandson.'

b. 할아버지**와** 손자는 극장에 가(***시***)었습니다.

  *halapoci-**wa**   sonca-nun   kukcang-ey   ka-(*****si**)-ss-supnita*

grandfather-**CONN** grandson-TOP   theatre- GOAL   go-(***SH***)-PAST-DECL.FORM

'Grandfather and grandson went (*deferent.) to the cinema.'

Though Korean distinguishes between *and*-structures and *with*-structures, this coordinative feature is balanced by the fact that Korean has not elaborated a unique coordinative marker for the *and*-conjoining. As the examples above show, the comitative marker -*(k)wa* is identical to the item used as the medial NP-coordinator, which signals that the language prefers the comitative strategy in this aspect as well (the last parameter in Table 2).

The clear tendency to the comitative strategy makes it possible to classify Korean as belonging to the *WITH*-type of languages (*à la* Stassen 2000: 41) that use only comitative tools to encode all types of relations (in contrast to *AND*-languages which enjoy both strategies, coordinate and comitative). Some coordinating features that

Korean has do not ruin this suggestion: according to Stassen, pure instances of the *WITH*-type are relatively rare: such languages are unstable diachronically and tend to float 'towards the creation of a coordinate structure, in which two NPs are balanced in rank' (2000: 38).

3.3 OAH in nominal &P

Since it is the connective case strategy that has been chosen as a tool of nominal linking, the question of optionality in specification of inflectional properties on non-final NP conjuncts has been traditionally viewed as a question of licensed/unlicensed particle sequences, i.e. compatibility of the connective *-(k)wa* with other pieces of inflection:

(84) N$_1$- **[INFL]-(k)wa**   N$_2$

3.3.1 Plural marker in conjoined structures (PL + CONN)

Being a facultative category, plural number may be freely specified or spared in the first nominal conjunct (85).[47] At the same time, the hierarchical character of Korean syntax restricts this freedom considerably: as with case-markers (see section 3.2.1), plural marking of the first conjunct inevitably triggers the identical marking of the second one for the overwhelming majority of informants (85').

(85) [4a, 5a]
연세대 교수(들)과 학생들이 일본을 방문했다.

　*yensey.tay　　kyoswu-(**tul**)-kwa　haksayng-**tul**-i　　ilpon-ul　　pangmwunhay-ss-ta*
Yonsei.university professor-(PL)-CONN student-PL-NOM Japan-ACC visit-PAST-DECL.PLAIN
'Yonsei University professors and students visited Japan.'

---

47 It is worth mentioning that the variant with the plural marker on both nominals has been evaluated even higher by native speakers than the variant with single plural marking on the final conjunct (cf. results of the gradient grammaticality test for [4a] and [5a] in Appendix C).

(85') [5b]

* 연세대 교수들과 학생이 일본을 방문했다.

    yensey.tay   *kyoswu-**tul**-kwa*   *haksayng-i*   *ilpon-ul*   *pangmwunhay-ss-ta*

Yonsei.university professor-**PL**-CONN   student-NOM Japan-ACC visit-PAST-DECL.PLAIN

(intended meaning) 'Yonsei University professors and students visited Japan.'

3.3.2 Case particles in conjoined structures (CASE + CONN)

3.3.2.1 Previous studies

The hierarchical head-final nature of Korean nominal conjoining suggests by definition that not all inflectional units can appear in the non-final conjunct. Indeed, according to Martin (2007), the connective case-marker *-wa/-kwa* can be preceded only by the markers of goal, locative, dative and ablative cases (86).

(86) Martin (2007: 210)

***-wa/-kwa** (-와/-과)*:   *- ey* (-에)   (goal/inanimate dative)

                        - eykey (-에게)   (animate dative)

                        - eyse (-에서)   (inanimate locative/source)

                        - eykeyse (-에게서)   (ablative/animate source)

The identical view is expressed in Baek (2001) (Table 3), where occurrence of *-wa/-kwa* is regarded as attested only after GOAL, DAT, LOC and ABL.

Table 3. Particle compatibility

(adapted from Baek 2001: 460-461)

Case-markers		Connective case -wa/-kwa (-와/-과)
Goal (aka inanimate dative)	-ey (-에)	OK
Locative (inanimate)	-eyse (-에서)	OK
Dative (animate)	-eykey (-에게)	OK
Ablative (aka animate locative)	-eykeyse (-에게서)	OK

It is interesting that in discussing another problem (concerning the precise morphological status of Korean inflection), linguists came up with practically identical results. In these studies (e.g. Kuh 1988, O'Grady 1991), occurrence of inflection in each nominal conjunct was considered as one of the crucial parameters in the series of tests separating 'genuine' case-markers (NOM, ACC, GEN) from postpositions (of time, location, or instrument): 'postposition can be inside conjuncts, but a Case marker cannot' (Yeon 2003: 25).[48] The only divergence between the two approaches (case-stacking view and morphological status exploration, see Table 4) concerns the instrumental particle -(u)lo: considered as a postposition, it is supposed to surface in both conjuncts (87), whereas for Martin (2007) and Baek (2001) the sequence INS + CONN is unacceptable.

(87) Yeon Jaehoon (personal communication)
영수가 손(?으로)와 컴퓨터로 글을 쓰는 데 모두 익숙하다.

*Yengswu-ka   son (?-**ulo**)-wa   khemphyuthe-**lo**   kul-ul   ssu-nuntey*
Yengsoo-NOM   hand-(?INS)-CONN   computer-INS   letter-ACC   write-CVB

motwu ikswukha-ta
all   familiar-DECL.PLAIN

'Yeng-soo is familiar with all things: writing by hand and writing on a computer.'

---

48 These tests, however, fail to identify the precise status of the animate dative, which exhibits controversial behaviour. Like a postposition, the dative survives in conjoined structures. At the same time it cannot be dropped from a single indirect object, as case-markers normally are (O'Grady 1991: 6-8). Hence, it seems reasonable to accept Yeon's view stating that 'the distinction (between postpositions and case-markers – *G.N.*) is not a clear-cut one, but a continuum' (2003: 25).

Table 4. Left conjunct casing in various analyses

Case-particles		in 'case-stacking' context		in 'case-marker vs. postpositon' context
		Martin 2007	Baek 2001	O'Grady 1991, Yeon 2003
NOM	*-i/-ka* (-이/-가)	*	*	*
ACC	*-ul/-lul* (-을/ -를)	*	*	*
GEN	*-uy* (-의)	*	*	*
DAT (anim.)	*-eykey* (-에게)	+	+	+
ABL (anim. LOC)	*-eykeyse* (-에게서)	+	+	+
GOAL (inanim. DAT)	*-ey* (-에)	+	+	+
LOC (inanim.)	*-eyse* (-에서)	+	+	+
INS	*-lo/-ulo* (-로/-으로)	*	*	+
VOC	*-a/-ya* (-아/-야)	*	n.s.	n.s.

Double-marking with the vocative case was not always observed in previous studies (probably, the vocative was considered as lying outside of the case-system), but undoubtedly there would be no disagreement in evaluation of (88), in which addition of *-(y)a* to the first conjunct gives an ill-formed phrase.

(88) [24a]

* 영호**야**와 민호**야**, 집에 어서들 돌아오너라!

   *engho-**ya**-wa   Minho-**ya**   cip-ey   ese-tul   tolao-nera*

Yengho-**voc**-CONN   Minho-**voc** home-GOAL quickly-PL   return-IMPER.PLAIN

* 'Hey, Yengho and hey, Minho! Go home now!'

Thus, according to previous studies, casing of medial conjuncts is licensed only for 'postpositional' markers: dative (animate and inanimate), locative/source (animate and

inanimate) and partly for instrumental (whose overspecification is not believed to be licit by all researchers). In the next section we will see whether empirical data collected by me from native-speakers of Korean support or contradict this view of the problem.

3.3.2.2 Medial casing: empirical data

The gradient grammaticality judgements of inside case overspecification provide us with further results. The respondents were asked to evaluate the grammaticality of nominal &Ps, in which the first conjunct with overt case-marking is followed by the -*(k)wa* linker.[49] The survey results show overlapping with previous studies in two main points:

- nominative (68), accusative (2) and genitive (89) do not permit double-marking at all, i.e. they undergo obligatory omission from the non-final nominal conjuncts
- ablative (animate locative) is free to occur in this position (3); such overspecification, however, is not obligatory

(68) [12a, 12b]

이방에 의자(*가)와 책상이 많아요.

   i.pang-ey   uyca(*-ka)-wa chayksang-i manh-ayo

this.room-LOC   chair (*-NOM)-CONN   desk-NOM many-DECL.POL

'There are many chairs and desks in this room.'

(2) [3a, 3b]

영수가 책(*을)과 신문을 읽는다.

   Yengswu-ka   chayk(*-ul)-kwa sinmwun-ul   ilk-nunta

Yeongsoo-NOM   book(*ACC)-CONN newspaper-ACC read-DECL.PLAIN

'Yeong-soo reads the book and the newspaper.'

---

49 For experiment description and survey results see Appendices A-D.

(89) [23a, 23b]

그사람은 영호(*의)와　민호의　삼촌입니다.

ku.salam-un　　Yengho-(*uy)-wa　Minho-uy　　samchon-i-pnita.

that.man-TOP　Yengho-(*GEN)-CONN　Minho-GEN　　uncle-COP-DECL.FORM

'This is Yengho's and Minho's uncle.'

(3) [7a, 8a, 9a, 9b, 16b, 18a ,19b]

그아이가 아버지(에게서)와　어머니에게서 선물을　받았다.

　　ku.ai-ka　　apeci(-eykeyse)-wa　emeni-eykeyse senmwul-ul　pat-ass-ta

that.child-NOM　father-(ABL)-CONN　mother-ABL　present-ACC　receive-PAST-DECL.PLAIN

'The child got a present from father and mother.'

As for the other case-markers, the situation seems to be more controversial. First, occurrence of the animate dative (ex. 90) in the medial position was not considered entirely grammatical by most informants. The average rate of its grammaticality – 2,29 out of 5 (on a scale where '0' is a completely ungrammatical structure and '5' is a completely grammatical one) – lies even slightly lower than that of inanimate locative case (ex. 91), whose average grammaticality index amounts to 2,37 out of 5 - i.e. both markers being attached to the non-final conjunct are moderately grammatical for native speakers.[50]

(90) [10a, 11a, 11b, 17b, 18b, 20a]

그아이가 아버지(?에게)와 어머니에게 선물을 주었다

　　ku.ai-ka　apeci(?-eykey)-wa　emeni-eykey senmwul-ul　　cwu-ess-ta

that.child-NOM father-(?DAT)-CONN　mother-DAT　present-ACC　give-PAST-DECL. PLAIN

'The child gave a present to father and mother.'

(91) [14b, 14b, 16a, 20b, 22a]

영수가 서울(?에서)와　런던에서 공부했다.

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50 For a detailed description of the grammaticality scale and results interpretation see Appendices A and
    D.

*Yengswu-ka   sewul-(? **eyse)-wa   lenten-eyse   kongpwuhay-ess-ta***
Yengsoo-NOM   Seoul-(? LOC)-CONN   London-LOC   study-PAST-DECL.PLAIN
'Yengsoo studied in Seoul and in London.'

Second, overt specification of the inanimate dative (goal) case in inside conjuncts (92) has been evaluated as balancing on the edge of ungrammaticality and moderate grammaticality (1,67 out of 5). It means that empirical data hardly support any of the previous analyses which claim that i) GOAL+CONN sequence is a theoretically allowed combination of particles; or ii) inanimate dative (goal) as a postposition is supposed to survive in conjoined structures.[51]

(92) [13a, 13b, 17a, 21a, 22b]
영수가 화분(?/*에)와 정원에 모두 물을 줬다.
*Yengswu-ka   hwapwun-(?/***ey)-wa   cengwen-ey   motwu mwul-ul   cwu-ess-ta*
Yengsoo-NOM flowerpot-(?/*DAT)-CONN garden-DAT all water-ACC give-PAST-DECL.PLAIN
'Yengsoo watered both the flowerpot and the garden.' (lit. 'gave water to')

Third, it was mentioned in section 3.3.2.1 that sentences like (87) with the inside instrumental postposition are acceptable for O'Grady 1991 and Yeon 2003, but at the same time the particle sequence (INS+CONN) is considered as unattested in Martin (2007) and Baek (2001). The results of my survey undoubtedly support the latter view (ex. 87'): the average rate of grammaticality for the medial instrumental does not exceed 0,9 out of 5.

(87') [15b, 21b]
영수가 손(*으로)와 컴퓨터로 글을 쓰는 데 모두 익숙하다.
Yengswu-ka   son (-**ulo)-wa   khemphyuthe-**lo   kul-ul   ssu-nuntey*
Yengsoo-NOM   hand-(*INS)-CONN   computer-INS   letter-ACC   write-CVB
motwu ikswukha-ta
  all   familiar-DECL.PLAIN

---

51 Yeon noticed that "sentences with the goal postposition on the first conjunct are good not for all speakers of Korean" (2003: 31).

Fourth, the vocative case-marker is also interpretable in terms of OAH. Though Martin does not discuss the vocative in the context of the case-stacking problem (i.e. VOC + CONN), he states that 'when two or more people are called, each is separately marked as vocative, rather than conjoined before marking' (2007: 415). In other words, only the marking of separate (not conjoined!) nouns is considered as attested for him (88'). However, the results of my survey show that it is still possible for native speakers to conjoin two names in the vocative, marking only the last addressee overtly, as in (88"). The index of grammaticality of such constructions is very high: 4,13 out of 5 stands for a totally well-formed structure.

(88') 영호**야** ! 민호**야** ! 집에 어서들 돌아오너라!

  Yengho-ya !   *Minho-ya !*   *cip-ey*   *ese-tul*   *tolao-nera !*

 Yengho-**VOC** Minho-**VOC** home-GOAL quickly-PL   return-IMPER.PLAIN

(88") [24b]

영호와 민호**야**, 집에 어서들 돌아오너라!

  Yengho-wa   *Minho-ya*   *cip-ey*   *ese-tul*   *tolao-nera*

 Yengho-CONN Minho-**VOC** home-GOAL quickly-PL   return-IMPER.PLAIN

    Therefore, the gradient grammaticality judgement test showed that:

- nominative, accusative, genitive, instrumental and vocative case particles undergo obligatory omission from the first conjunct
- ablative (animate locative) licenses optional 'inside' specification
- the presence of the medial dative (animate), locative (inanimate), goal (inanimate dative) case-markers is considered to be moderately grammatical by native speakers

Similarities and variations between my survey and previous research are summarized in Table 5 (cf. also Appendix D).

Table 5. Medial casing in various studies

Case-particles	in 'case-stacking' context		in 'case-marker vs. postpositon' context	in OAH context
	Martin 2007	Baek 2001	O'Grady 1991, Yeon 2003	gradient grammaticality
NOM *-i/-ka* (-이/-가)	*	*	*	*
ACC *-ul/-lul* (-을/ -를)	*	*	*	*
GEN *-uy* (-의)	*	*	*	*
ABL (anim. LOC) *-eykeyse* (-에게서)	+	+	+	**+ (3,36/5)**
DAT (anim.) *-eykey* (-에게)	+	+	+	**? (2,29/5)**
LOC (inanim.) *-eyse* (-에서)	+	+	+	**? (2,37/5)**
GOAL (inanim. DAT) *-ey* (-에)	+	+	+	**?/* (1,67/5)**
INS *-lo/-ulo* (-로/-으로)	*	*	+	*** (0,9/5)**
VOC *-a/-ya* (-아/-야)	*	n.s.	n.s.	*

3.4 Towards a unified approach

Unlike verbs, nominal *and*-conjoining is always semantically symmetrical, since no temporal, conditional or causal relations between nouns are involved. Meanwhile, such semantic symmetry does not automatically trigger OAH here: some pieces of nominal inflection license optionality, while others do not. The opposition 'natural vs. accidental coordination' suggested by Wälchli (2005) is also not relevant for Korean nominal

conjoining: the ablative case-marker is still free to appear even between conceptually very close items like 'father and mother' (81a), whereas the nominative case-marker still has no choice but to withdraw from the left conjunct even in the 'loose' accidental environment (93).[52]

(81)

a. [7a, 9a, 16b, 18a ,19b]

그아이가 아버지**에게서**와 어머니에게서 선물을 받았다.

    *ku.ai-ka   apeci-**eykeyse**-wa emeni-eykeyse senmwul-ul   pat-ass-ta*

that.child-NOM father-**ABL**-CONN   mother-ABL   present-ACC   get-PAST-DECL.PLAIN

'The child got a present from father and mother'**.**

(93) [26a, 26b]

영호의 아버지(* **가**)와 삼촌이 집에 돌아가 있다.

 Yengho-uy   apeci(-**ka**)-wa samchon-**i**   cip-ey tolaka   iss-ta*

Yongho-GEN   father(***NOM**)-CONN uncle-**NOM** home-GOAL   return   be-DECL.PLAIN

'Yongho's father and uncle are already at home.'

The 'animacy vs. inanimacy' opposition cannot be the ultimate trigger of OAH either. Let us look at Table 6 in which all inflective suffixes are grouped in regard to animacy.

First, animacy does not play any significant role for the nominative (93) or accusative case markers (94): even human subjects/direct objects must always stay unmarked, when they occupy the non-final position.

(94) [25a, 25b]

영호(*를)과 민호를 학교에서 봤다.

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52 Natural coordination is a 'coordination of items that expected to occur, which are closely related in meaning, and which form conceptual units, such as "father and mother", "hands and feet", "eat and drink", "read and write" ' (Wälchli 2005: 5). Items of accidental coordination, on the contrary, are 'unexpected' to co-occur and not so closely related to each other semantically.

Yengho(-**lul**)-kwa   Minho-**lul**   hakkyo-eyse   pwa-ss-ta*

Yongho (*-ᴀᴄᴄ)-ᴄᴏɴɴ   Minho-ᴀᴄᴄ   school-ʟᴏᴄ   see-ᴘᴀꜱᴛ-ᴅᴇᴄʟ.ᴘʟᴀɪɴ

'(I) met Yongho and Minho at school.'

Table 6. 'Medial' nominal inflection: relevance to animacy

Relevance to animacy			medial marking
Animacy-insensitive inflection			
mark both animate & inanimate	NOM	*-i/-ka* (-이/-가)	*
	ACC	*-ul/-lul* (-을/ -를)	*
	INS	*-lo/-ulo* (-로/-으로)	*
Animacy-sensitive inflection			
mark only animate	DAT (anim.)	*-eykey* (-에게)	?
	ABL (anim. LOC)	*-eykeyse* (-에게서)	+
	VOC	*-a/-ya* (-아/-야)	*
tend to mark animate	PL	*-tul* (-들)	+
	GEN	*-uy* (-의)	*
mark only inanimate	GOAL (inanim. DAT)	*-ey* (-에)	?/*
	LOC (inanim.)	*-eyse* (-에서)	?

Second, the vocative case marker -(*y*)*a* (that can be added only to animate nouns) as well as the genitive case marker *-uy* (that tends to the same policy) never survive in non-final conjuncts (ex. 88 and 89, repeated here).

(88) [24a, 24b]

영호(*야)와 민호야, 집에 어서들 돌아오너라!

　*Yengho-(*ya)-wa   Minho-**ya**   cip-ey   ese-tul   tolao-nera*

Yongho-(*ᴠᴏᴄ)-ᴄᴏɴɴ   Minho-ᴠᴏᴄ home-ɢᴏᴀʟ quickly-ᴘʟ   return-ɪᴍᴘᴇʀ.ᴘʟᴀɪɴ

'Hey, Yengho and Minho! Go home now!'

(89) [23a, 23b]

그사람은 영호(*의)와　민호의　삼촌입니다.

*ku.salam-un　Yengho-(*uy)-wa　Minho-uy　samchon-i-pnita.*

that.man-TOP　Yongho-(*GEN)-CONN　Minho-GEN　uncle-COP-DECL.FORM

'This is Yengho's and Minho's uncle.'

Besides, all previous accounts as well as my survey show that omission of the inside [-animacy] dative and especially inside [-animacy] locative suffixes does not seem to be compulsory to some native speakers, i.e. double-marking is not absolutely unacceptable for them. From that we can assume that (in)animacy cannot be the ultimate trigger of nominal OAH that motivates/restricts it directly, otherwise all case values would respond to that.

The next possible motivation is the 'case-markers vs. postpositions' dichotomy. This classification can be traced back to Jespersen 1963 [1924] and Kuryłowicz 1960 [1949]. According to this view, 'true' case-markers (NOM, ACC, GEN) are 'syntactic' (or 'grammatical')[53] and cannot survive in a syntactically subordinated environment, whereas postpositions correspond to 'semantic' cases ('concrete' in Kuryłowicz's or 'local' in Jespersen's terms)[54] and do not undergo obligatory withdrawing from non-final conjuncts in Korean. However, inconsistent grammaticality of double-marking with DAT (animate dative), GOAL (inanimate dative), LOC (locative) and INS (instrumental) cases prevents us from accepting this really simple and elegant interpretation of this phenomenon.

The heterogeneity of Korean nominal inflection in regard to OAH can be viewed from one more perspective. I suggest that Korean nominal inflection should be represented not as a category with some clear-cut, invariant properties but as a functionally-motivated continuum, position in which results in different inclination to optionality (Figure 11, see also Appendix D). Suffixes that assign some lexically relevant meaning (i.e. number or animacy) form Zone A, the closest (apart from

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53 In Korean linguistics syntactic case-markers are referred to as *kwuco kyekcosa* (구조 격조사) – 'structural case-particles'.

54 Semantic cases correspond to *pwusa. kyek.cosa* (부사 격조사) – 'adverbial case-particles' in Korean terminology.

derivational suffixes) to the lexical root.[55] Suffixes from this zone are relatively stable, can survive in the hierarchical environment of Korean *with*-like coordination and, accordingly, they can be specified at speaker's option. On the other pole of this continuum we can find Zone C, consisting of suffixes from two functional domains: the addressee- (i.e. pragmatically-) oriented vocative case as well as the syntactic case-markers: nominative, accusative, genitive (belonging to argument structure (NOM, ACC) or expressing the syntactic dependency (GEN)). All these peripheral suffixes are extremely unstable in subordinate environment and undergo obligatory withdrawing from medial conjuncts. The space between these two edges is occupied by the grey area, Zone B. Suffixes of this zone express semantic functions (recipient/beneficiary, source, origin, direction, location, instrument etc.) but, at the same time, they do not bear a pure lexical meaning (like animacy or number). The ambiguous nature of these suffixes is mirrored in different judgements about their grammaticality as medial inflection: for some native speakers it is still possible to keep these suffixes in non-final conjuncts, while for others such constructions are unattested.[56]

Figure 11. Functional continuum of Korean nominal inflection

<hr />
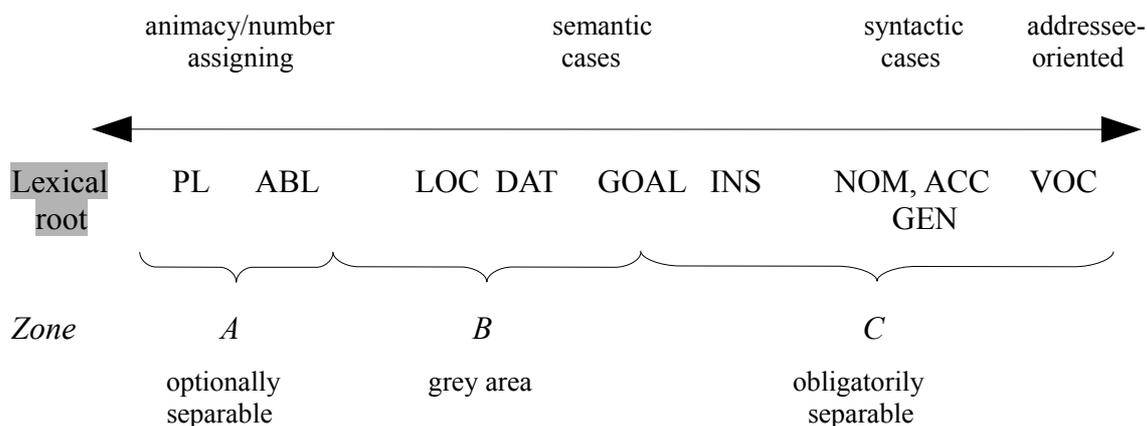
55 It is crucial that not the hosting root but the suffixes themselves contain a lexically relevant meaning of animacy or plurality.

56 The results of the native speakers opinion survey show that the animate dative case marker also belongs to the grey area B (and not to Zone A, as another animacy-assigning ablative case does). I would suggest that the lexically-relevant property of animacy the animate dative marker inherently bears is neutralized by the fact that indirect objects are part of the sentence argument structure, which makes the dative case 'more syntactic' and, consequently, less stable in a hierarchical syntactic environment.

Importantly, the phenomenon of case-stacking in Korean (when a single word can be marked with two or even three case-markers) indirectly supports the order of the case-markers in the suggested continuum: the semantic case-markers (like LOC or GOAL) are more central, the syntactic GEN is outside, and the instrumental case occupies an in-between position (95).[57]

(95)

a. 바닷가**에서의** 집

  *patas.ka-**eyse-uy**   cip*

  sea.side-**LOC-GEN**   house

'house on the seaside'

b. 새로운 단계**에로의** 이행

*saylo-wun tankyey-**ey-lo-uy**   ihayng*

new-ADN stage-**GOAL-INS-GEN** transition

'entering a new phase'

Thus, optionality of medial inflection both for verbal and nominal &Ps can be motivated by the identical functional principle: suffixes from more peripheral functional domains license no optionality and undergo obligatory omission from the non-final conjuncts, whereas functionally more central inflection can be specified optionally.

3.5 Summary

The focus of this chapter was OAH in nominal &Ps. Since it is difficult to separate inflectional nominal affixes from other morphological items (e.g. clitics, postpositions,

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57 The co-occurrence of the comitative particle with the genitive case marker deserves special attention, since cases like 마약**과의** 전쟁 *mayak-**kwa-uy** cencayng* drug-**COM-GEN** war 'war against drugs' show, that these elements (i.e. GEN and COM) do not belong to the same slot, and obligatory omission of the syntactic case-markers in conjoined structures can be hardly motivated by pure morphotactics (i.e. be interpreted in terms of incompatibility of these elements) .

particles etc.) in Korean, I included into the study all bound units that overtly specify any inflectional category, i.e the plural suffix and the case-markers. I highlighted the question of how these pieces of inflection behave in the hierarchical environment of Korean nominal conjoining that exhibits clear properties of the *WITH*-type (rather than the *AND*-type): unequal structural rank of conjuncts, violation of the CSC/ATB-constraint, unique marker for both conjunctive and comitative structures. It was shown that not all pieces of inflection enjoy optionality of specification in non-final conjuncts:

- [+animacy]-marked ablative case-marker as well as the plural suffix permit medial inflection
- [-animacy]-marked locative, [+animacy]-marked dative and [-animacy]-marked dative (goal) demonstrate moderate level of grammaticality and constitute the grey area of the nominal OAH: optionality of medial inflection with these suffixes is accepted not by all native-speakers as licit
- the syntactic case-markers, i.e. nominative, accusative, genitive as well as the addressee-oriented vocative are compulsory to drop from non-final conjuncts
- overspecification with the instrumental case-marker was also constantly judged as ungrammatical, though in some previous research inside instrumental is believed to be acceptable (this suggests that the INSTRUMENT-role is felt by people as rather syntactic than semantic)

A unified account for the interpretation of these results was provided. This account suggests that nominal OAH has a functional motivation crucially related to the 'core/periphery' opposition. Syntactic and pragmatic functions are considered to be more peripheral. As such, they are not stable on their outermost orbit and suffixes which encode these functions have to be omitted from non-final nominal conjuncts. Functions which affect the meaning of the lexical root are more central. Accordingly, animacy- and number-assigning suffixes still lie in the zone of 'root gravitation', demonstrating more stability: they are free to appear in a subordinated NP (though the influence of lexically relevant category of animacy for dative can be considerably weakened by the syntactic role this case plays for argument structure). Semantic functions expressed by

LOC, GOAL and INS occupy an in-between position in the continuum. Case-markers of these functions constitute a controversial grey area of the phenomenon. This functional approach seems to have a universal character: it can be used to account for optionality of medial inflection both in nominal and in verbal &Ps.

Chapter 4

Motivation of overspecification

In previous chapters (2 and 3), we focussed on the question 'which Korean inflectional affixes may optionally surface in non-final conjuncts and which undergo obligatory withdrawing from them?' We suggested that only those pieces of inflection which occupy an intermediate position between the core lexical and the extreme peripheral syntactic/pragmatic poles in the functional continuum exhibit optionality of specification in the highly hierarchical environment of Korean syntax. It is also remarkable that even in situations when specification of morpho-syntactic properties is allowed on both conjoined elements, such overspecification is always *optional* and never *obligatory*. Under such circumstances the following question arises: if the principle of iconicity (i.e. marking of both conjuncts) is not obligatory in a language, why does the principle of economy (non-marking of medial conjuncts) not immediately come into force? Or, in other words, what sponsors overspecification (i.e. 'excessive', 'unnecessary' double-marking) in conjoined structures, in which single-marking of one conjunct (underspecification) is possible and sufficient?

4.1 Marking vs. non-marking: motivation for single words

To answer this question, let us first observe the reasoning behind (non-)marking in *simple* (i.e. not conjoined) structures without any logical operator. Describing optionality (or non-obligatoriness) of case-marking of single words in agglutinative languages, many linguists pointed out that affixed and unaffixed versions would have not entirely identical reading and that the keeping/omission of nominal inflection has functional motivations here.[58] In Turkish, for instance, '... the noun phrase which

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58 There are also languages (e.g. Itelmen, Ostyak, Tundra Nenets) in which not just overt case-marking but even verb agreement depends on the role that subject (or object) plays in the information structure (see Dalrymple & Nikolaeva 2011).

constitutes the direct object is usually non-case-marked if non-definite ... but if definite it has the accusative case marker' (Göksel & Kerslake 2005: 128).[59] Likewise, Turkish ablative and dative case suffixes can be used as a topic marker with temporal (96) and locational (97) adverbials.

(96) Turkish (Kornfilt 1997: 202)

erken-**den** Hasan iş-e git-ti

early-**ABL** Hasan work-DAT go-PAST

'As for early, Hasan went to work (early)'

(97) Turkish (Kornfilt 1997: 203)

dışarı-**ya** Hasan çık-tı

outside-**DAT** Hasan go out-PAST

'As for outside, Hasan went (out)'

In the same vein, the inflection of single words in Korean cannot be considered as absolutely optional either. Firstly, there may be times when no free choice between marking and non-marking exists and particles/suffixes cannot be dropped from the hosting stem at all. For example, when the nominative particle is used to introduce new information or to convey the exclusiveness of the referent (as in 98), 'it is never omitted, not even in casual speech' (Sohn 1999: 329).

(98) Sohn (1999: 329)

영호**가** 왔다.

*Yengho-**KA*** *wa-ss-ta*

Yongho-**NOM** come-PAST-DECL.PLAIN

'It is Yongho who came.'

---

59 Enç claims that if the NP bears the accusative case morpheme -(*y*)*i*, it *has to be* interpreted as specific, and if the NP does not carry case morphology, it *has to be* interpreted as non-specific (1991: 4).

As (99) shows, this is also true of the genitive marker *-uy* (-의) whose realization is far from being automatically optional, especially when 'ambiguity may occur or an alternative meaning can be produced' (Yeon & Brown 2011: 101).[60]

(99) Yeon & Brown (2011: 101)

a. 민호**의** 형이 부지런해요.

 *Minho-**uy**   hyeng-i   pwucilenhay-yo*

Minho-GEN   older brother-NOM   (be) hard-working-DECL.POL

'Minho's older brother is hardworking.'

b. 민호_ 형이 부지런해요.

 Minho-_   hyeng-i   pwucilenhay-yo

Minho_   older brother-NOM   (be) hardworking-DECL.POL

'Older brother Minho is hard-working.'

The Korean plural marker *-tul* demonstrates similar behaviour: under some circumstances optionality of its specification converts to obligatory marking or to obligatory non-marking. With demonstrative pronouns *i* (이) 'this', *ku* (그) 'that', *ce* (저) - 'that over there', for instance, plurality should be expressed overtly (as in (100)), otherwise the word would bear a singular meaning only. With numerals (as in (101)), on the contrary, overt specification of the plural suffix *-tul* would be ungrammatical.[61]

(100) Ko & Koo (2009: 84)

나는 이사람들을 사랑한다.

*na-nun   i.salam-**tul**-ul   salangha-nta*

 I-TOP   this.person-PL-ACC   love-DECL.PLAIN

'I love these people.'

---

60 Ko & Koo 2009: 157 observe that, when the genitive marker does not denote possessive or 'whole/part' relations, it normally avoids omission.

61 For more information about non-facultative use of the suffix *-tul* see Yeon & Brown 2011: 121-122.

(101) Lee & Ramsey (2000: 100)

두사람(*들)

twu salam (-**tul**)*

two person (-*PL)

    Secondly, even when *both* omission and overt specification are technically possible, the choice between these two options cannot be regarded as absolutely free because this 'marking vs. non-marking' opposition is significant from a pragmatic point of view. For instance, exploring the (non-)occurrence of the Korean accusative case-marker in informal narratives and dialogues, Thompson & Lee (1989) showed that bare nominals tend to refer to entities known to both participants of the dialogue through 'shared experience', while overt case-marking conveys rather 'necessity for specification'. Interestingly, the sharedness/specificity opposition does not directly correspond to definiteness/indefiniteness relations. Lee claims that 'specificity does not assume the hearer's knowledge of the referent; only the speaker's knowledge of it is assumed. Therefore, we can have specific indefinites' (1994: 328). Focusing on the accusative (and, partly, on the nominative) particles, he suggests that overt case-marking is preferable, when the event is rather unexpected (102a). At the same time, case deletion occurs when the event involving the NP referent is assumed, familiar or expected (102 b), with no regard to whether NP is definite or indefinite.

(102) Lee (1994: 329)

a. 네가 차를 닦았니?

  *ney-**ka** cha-**lul** takk-ass-ni*

you-**NOM** car-**ACC** wash-PAST-QU.PLAIN

'Did you wash the car?' (I didn't expect it.)

b. 너 차 닦았니?

 ne cha takk-ass-ni

you car wash-PAST-QU.PLAIN

'Did you wash the car?' (The idea of 'your washing the car' is rather familiar or expected.)

Adopting Prince's 1992 approach to information status, Ko (2001) suggests that the 'old vs. new' opposition is, in fact, not binary but at least three-fold: 1. discourse old/hearer old; 2. discourse new/hearer old; 3. discourse new/hearer new. She argues that in Korean a bare NP is not a form with the case-marker missed but rather the basic form that refers to the 'discourse new/hearer old' situation. Accordingly, Korean case-markers (in particular the accusative *-(l)ul* and the nominative *-i/-ka*) are realized overtly in the 'discourse new/hearer new' situation in which they are used as an operator of 'rhematic' and/or 'kontrastive' (in terms of Vallduví & Vilkuna 1998) focus, resembling in that other delimiters like *-man* - 'only' or *-to* - 'also'. Not pursuing the aim to examine the validity of all arguments in the 'bare NP vs. cased NP' discussion, it seems to us reasonable to say that Korean data in general support the cross-linguistic view which claims that optional case (non-)expression is not redundant but rather determined pragmatically (see Ghomeshi 1997 for Persian, Vollmann 2010 for Tibetan and references above for Turkish data).[62]

When not obligatory, (non-)specification of *plurality* seems also to be essentially related to information structure. The phenomenon of 'Copied Plural Marking' wherein the plural marker of the subject nominal is 'copied' and then suffixed to various non-subject elements, has been traditionally viewed as 'optional plural agreement' (e.g. in Kuh 1987 or Koopman 2005). Song (1997), however, argues that Plural Copying is, in fact, not optional: it has semantic-pragmatic motivations and encodes either the distribution or the focus of some event. For instance, a plural marker added to the *singular* indirect object in (103) means that multiple agents ('people') gave the child money either independently (i.e. at different times and not collectively), or even collectively but several times.

(103) Song (1997: 209)

사람들이 아이에게들 돈을 주었다.

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62 Exploring the phenomenon of *nominative spreading* (i.e. use of nominative instead of other cases, e.g. dative) and *accusative stacking* (i.e. addition of accusative to an already cased form) in Korean, Van Valin 2009: 120 suggests that not just case (non-)expression but case-assignment in general can be motivated by focus structure considerations (see also Han 1999, Park 1995 and Schütze 2001 for discussion).

*salam-tul-i   ai-eykey-**tul**   ton-ul   cwu-ess-ta*

man-PL-NOM   child-DAT-**PL**   money-ACC   give-PAST-DECL.PLAIN

'People gave the child money.'

Evidence for the focal reading of Plural Copying comes from two areas: i) incompatibility of the topic marker with Plural Copying (104); and ii) impossibility (or, at least, oddity) of Plural Copying for presupposed elements in WH-questions (105), where only the WH-word can act as a focus.

(104) Song (1997: 221)

아이에게(*들)**는**(*들) 사람들이 돈을 주었다.

ai-eykey (-tul)-**nun**-(*-tul)   salam-tul-i   ton-ul   cwu-ess-ta*

child-DAT (*-PL)-**TOP** (*-PL)   man-PL-NOM   money-ACC   give-PAST-DECL.PLAIN

'People gave the child money.'

(105) Song (1997: 222)

무엇을 아이들이 공원에서(?들) 즐겁게 했냐 ?

mwues-ul   ai-tul-i   kongwen-eyse-(tul)   culkep-key   hay-ss-nya

what-ACC child-PL-NOM   park-LOC-(?**PL**)   cheerful-ADV do-PAST-QU.PLAIN

'What did the children cheerfully do in the park?'

Plural Copying and the functions it performs in information structure are especially instructive for our research, since what we are dealing here with is not just a simple 'marking vs. marker-drop' opposition but an 'excessive' reduplication/spreading of an affix which itself remains in its normal, inherent position. This resembles in some respect (apart from the coordination condition, of course) optional affix hosting in Korean that also suggests 'optional' and 'superfluous' marking of one conjunct, when another one is already marked identically.

Thus, summing up all the facts in this survey, we can conclude that inflection of single words in Korean can be regarded as 'optional' only in a morphological sense of this word, i.e. when it is technically possible either to keep or to omit inflection from the

hosting root/stem. At the same time, the choice between these two 'technical' options is not free but functionally-motivated: overt marking generally refers to focality/specificity/unexpectedness as well as distribution, while affix drop more naturally conveys the idea of sharedness/expectedness.[63]

4.2 Overspecification in Korean &Ps

In light of the fact that 'optionality' is not equivalent to 'redundancy' for single word affixation, it seems reasonable to us to extend the same approach to OAH and suggest that optional reduplication of 'phrase affixes' in non-final conjuncts performs similar functional duties, i.e. it encodes focality or distribution. In this section I will show whether and how Korean empirical data support this hypothesis.

4.2.1 Overspecification as focalization

4.2.1.1 Focus strategies: a theoretic background

When claiming that optional overspecification in coordinate structures can deliver a focal meaning, it should be taken into account that the concept of focus itself is not absolutely homogeneous. Functional Grammar (FG), which is primarily concerned with the informational status of constituents and the formal expression of pragmatic functions, classifies focality by means of two main parameters:

- scope, i.e. part of the clause placed in focus
- communicative point, i.e. the reason that underlies the assignment of focus

(Dik 1989: 281)

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63 The interrelation between optionality and information structure can be observed on the syntactic level, too. Describing optional participant case-roles, Givón noticed that 'optional locatives and temporals are most likely *clause-level* constituents ... and can be contrasted with obligatory locative and temporal objects, which presumably are VP constituents' (2001: 162). This assumption is based on the ability of optional phrases to be fronted (and, accordingly, to be focalized or topicalized), which is not possible for obligatory NPs in English (cf. *In Mexico*, *she chased butterflies* vs. * *To Mexico*, *she went*).

Accordingly, optional overspecification of inflectional categories in non-final *nominal* conjuncts would assign focus to conjoined *terms*, while marking of both *verbal* conjuncts with identical suffixes would show that focus lies on *predicates* (see Figure 12).[64]

Figure 12. Focus scope

(Dik 1989: 281)

```
                        Focus on
            ┌───────────────┼───────────────┐
       π-operators       predicate         terms
                                        ┌─────┴─────┐
                                     subject      other
```
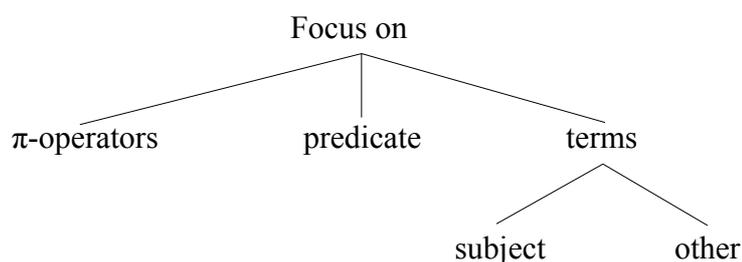
In the classification of focus by the communicative point, two types are particularly relevant for our study: parallel and expanding (Fig. 13). Both of these types represent contrastive relations for which, logically, two opposed elements are needed. The *parallel focus* ('X, meanwhile/whereas/but Y') involves an explicit contrast of two pieces of information within one linguistic expression, e.g.

(106) Siewierska (1991: 178)

The **Afghans** play the buzkashi with a **goat** carcass, the **Kazahks** with a **sheep** carcass.

Expanding focus ('X and also Y') is used to add some information to a correct but incomplete assertion, e.g.

(107) Dik (1989: 284)

- John bought coffee.

- Yes, **but** he **also** bought **rice**.

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64 Since Korean π-operators (i.e. tense, mood, aspect, polarity affixes) are not independent items and cannot be moved from main predicates (to auxiliary verbs as in English, for instance), these two focus strategies fuse into one in Korean.

Figure 13. Focus strategies: communicative point

(Dik 1989: 282)

```
                        Focus
                    /          \
                New              Contrast
            (completive)        /        \
                           Parallel      Counter-presuppositional
                                        /    |      |        \
                                 Replacing Expanding Restricting Selecting
```
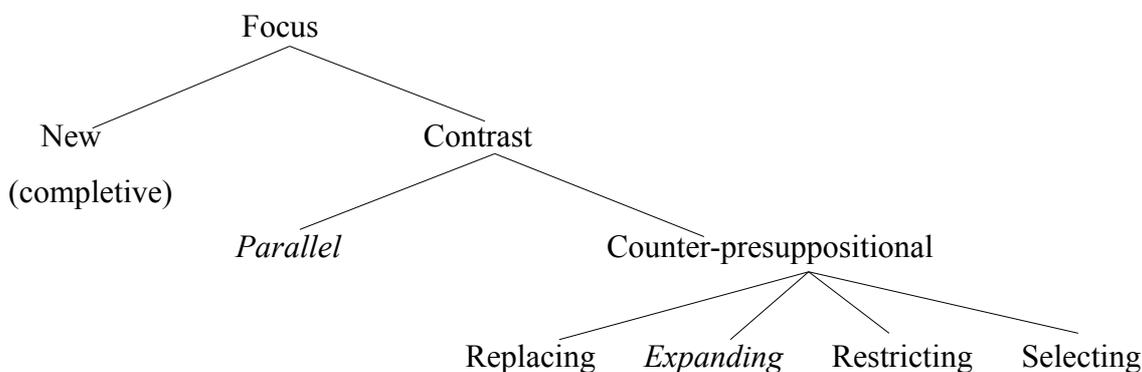
Since in our study of OAH we concentrate on binary *and*-like conjoined structures with one logical operator, all other focus types appear to be not so closely relevant to the aims of our research: *new* (*completive*) focus ('X!') just fills the gap in the pragmatic information to the addressee and is not intended to be used in parallel structures; *replacing* ('not X but Y') and *restricting* ('not X & Y but only Y') types of focus presume that some statement is not correct (entirely or partly), which, consequently, requires negation, i.e. an extra logical operator.[65] Finally, *selecting* focus ('X or Y') denotes a choice between two alternatives and can be found only in disjunctive constructions. Bearing in mind only two focus types remained, the next two sections will explore whether it is possible in Korean to use overspecification of inflectional categories in non-final conjuncts as a tool of contrastive parallel or expanding focalization.[66]

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[65] It is also possible to deny statements without any extra logical operator, i.e. not syntactically (via negation) but lexically (via antonyms), e.g. 'love-hate', 'win-lose', 'remember-forget' etc. In coordinate structures, however, these replacing or restricting foci will be identical to the contrastive parallel type ('X, whereas Y').

[66] It was mentioned in Siewierska (1991: 177) that not all focus types are seen as equally relevant on a cross-linguistic basis: a language need not employ all the possible focus strategies but only some subset of them.

4.2.1.2 Overspecification as contrastive parallel focus

As long as adversative *but*-relations are more commonly found between two events, not between two conjoined nouns (which can be hardly contrasted/opposed to each other), the parallel type of contrastive focus is to search only in verbal/clausal &Ps. In Korean verbal &Ps, however, optional reduplication of the past tense suffix -*ass*-/*ess*- in the medial position does not seem to have such a strong effect. As a potential tool of contrastive focalization, the medial past tense suffix -*ass*-/*ess*- should more naturally occur in a specific contrastive context ('whereas', 'meanwhile', 'but'), rather than in non-contrastive. Yet, the results of the survey do not reveal a clear tendency towards that: the average grammaticality rate of (108a) in which two opposed subjects marked with the particle of contrastive topic -*nun* (-는) is practically identical to the result for (108b), where the subjects are cased with 'standard' nominative particles (3,93/5 vs. 3,87/5 respectively)

(108) [61a, 61b]

a. 민호는 밥을 지었고 미형은 국을 끓였다. (3,93/5)

*Minho-**nun** pap-ul ci-**ess**-ko Mihyeng-**un** kwuk-ul kkulh-i-**ess**-ta*

Minho-**TOP** rice-ACC cook-**PAST**-CVB Mihyeng-**TOP** soup-ACC seethe-CAUS-**PAST**-DECL.PLAIN

'Min-ho cooked rice, while (and) Mi-hyong made soup.'

b. 민호가 밥을 지었고 미형이 국을 끓였다. (3,87/5)

*Minho-**ka** pap-ul ci-**ess**-ko Mihyeng-**i** kwuk-ul kkulh-i-**ess**-ta*

Minho-**NOM** rice-ACC cook-**PAST**-CVB Mihyeng-**NOM** soup-ACC seethe-CAUS-**PAST**-DECL.PLAIN

'Min-ho cooked rice and Mi-hyong made soup.'

The WH-test also provides no clear support for the focal interpretation of overspecification. If the past tense suffix on medial predicates were an instrument of focalization, then such marking should be considered particularly odd or ungrammatical in WH-questions, where predicates are supposed to represent the asserted part of

utterance, not to host/assign focus. The survey showed that medial tensing is indeed more preferable in declarative sentences (109a) but WH-questions with an overspecified medial past tense marker have been also evaluated as entirely grammatical (109b).

(109) [40a, 40b]

a. 나는 학생시절에 김선생님을 좋아**했**고 최선생님을 싫어**했**습니다. (4,6/5)

*na-nun   haksayng.sicel-ey   Kim.sensayng-nim-ul   cohahay-**ss**-ko*

  I-TOP   student.time-DAT   Kim.teacher-HT-ACC   like-**PAST**-CVB

*Choy.sensayng-nim-ul   silhehay-**ss**-supnita*

  Choi.teacher-HT-ACC   dislike-**PAST**-DECL.FORM

'In the school days I liked teacher Kim and hated teacher Choi.'

b. 학생시절에 **누가** 김선생님을 좋아**했**고 최선생님을 싫어**했**습니까? (3,4/5)

*haksayng.sicel-ey   **nwu-ka**   Kim.sensayng-nim-ul   cohahay-**ss**-ko*

  student.time-DAT **who-NOM**   Kim.teacher-HT-ACC   like-**PAST**-CVB

*Choy.sensayng-nim-ul   silhehay-**ss**-supnikka?*

  Choi.teacher-HT-ACC dislike-**PAST**-QU.FORM

'Who liked teacher Kim and hated teacher Choi in the school days?'

Therefore, empirical data do not provide us with sufficient evidence that overspecification of the past tense in medial verbs is a strategy encoding parallel contrastive focus in Korean (though a slight tendency towards this meaning does exist).

4.2.1.3 Overspecification as expanding focus

Unlike the parallel contrastive type, the expanding focus can, theoretically, be seen both in verbal and nominal &Ps. The gradient grammaticality test demonstrates that tensing of non-final predicates is more preferable in combination with the additive particle *-to* (-도) 'also' on the argument (ex. 110a). Without this particle, the utterance has been evaluated only as moderately grammatical; some informants (mostly non-linguists) even interpreted (110b) as a *sequence* of two events, in which no past tense marker may

occur in the non-final verb. That suggests that overspecification in medial VPs is closely related to the expanding reading ('and also', 'as well as').

(110) [62a, 62b]

a. 민호가 밥**도** 지**었**고 국**도** 끓였다. (5/5)

*Minho-ka   pap-**to**   ci-**ess**-ko   kwuk-**to**   kkulh-i-**ess**-ta*

 Minho-NOM   rice-<u>also</u>   cook-**PAST**-CVB   soup-<u>also</u>   seethe-CAUS-**PAST**-DECL.PLAIN

'Minho cooked rice **and also** made soup.'

b. 민호가 밥을 짓(?**었**)고 국을 끓였다. (3,2/5)

*Minho-ka   pap-**ul**   cis-(? **ess**)-ko   kwuk-**ul**   kkulh-i-**ess**-ta*

Minho-NOM   rice-<u>ACC</u>   cook-(? **PAST**)-CVB   soup-<u>ACC</u>   seethe-CAUS-**PAST**-DECL.PLAIN

'Minho cooked rice and (then) made soup.'

At the same time, overspecification of inflectional categories in nominal &Ps does not convey the idea of expansion, neither for case-particles (111) nor for the plural suffix (112). Addition of the particle *-to* even lowers the degree of grammaticality in corresponding sentences, making them only moderately grammatical for native speakers, whereas 'standard' patterns without additive context have been placed in the entirely grammatical segment of the scale.

(111) [7a, 7b]

a. 그아이가 아버지에게서와 어머니에게서 선물을 받았다. (3,67/5)

  *ku.ai-ka   apeci-**eykeyse**-wa   emeni-**eykeyse**   senmwul-ul   pat-ass-ta*

that.child-NOM   father-**ABL**-CONN   mother-**ABL**   present-ACC   get-PAST-DECL.PLAIN

b. (?) 그아이가 아버지에게서와 어머니에게서도 선물을 받았다. (2,53/5)

  *ku.ai-ka   apeci-**eykeyse**-wa   emeni-**eykeyse**-to   senmwul-ul   pat-ass-ta*

that.child-NOM father-**ABL**-CONN   mother-**ABL**- **also**   present-ACC   get-PAST-DECL. PLAIN

a. 'The child got presents/a present from father and mother.'

b. (?) 'The child got presents/a present from father and also from mother.'

(112) [27a, 27b]

a. 남자들과 여자들은 여기 화장실 공동으로 사용해요. (4,67/5)

*namca-**tul**-kwa*   *yeca-**tul**-un*   *yeki   hwacangsil   kongtong-ulo sayonghay-yo*

 man-**PL**-CONN   woman-**PL**-TOP   here   toilet   joint-ADV   use-DECL.POL

b. (?) 남자들과 여자들도 여기 화장실 공동으로 사용해요. (3,27/5)

*namca-**tul**-kwa*   *yeca-**tul**-to*   *yeki   hwacangsil   kongtong-ulo sayonghay-yo*

 man-**PL**-CONN   woman-PL-**also**   here   toilet   joint-ADV   use-DECL.POL

a. 'Men and women use the same toilet here.'

b. (?) 'Men and also women use the same toilet here.'

4.2.2 Overspecification as distribution

In addition to the contrastive types of focus, overspecification can also encode distribution of some *single* event: in space, in time or between two agents. This function of overspecification can be observed only in nominal &Ps, since conjoined verbal structures imply at least two events by definition. In example (113) it can be clearly seen that overspecification of the ablative case-marker is quite natural in distributive (113a) and very odd (on the edge of ungrammaticality) in collective (113b) readings.

(113) [6a, 6b]

a. 그아이가 아버지**에게서**와 어머니**에게서** 선물을 하나**씩** 받았다. (3,67/5)

ku.ai-ka   *apeci-**eykeyse**-wa emeni-**eykeyse** senmwul-ul hana-**ssik** pat-ass-ta.*

that.child-NOM father-**ABL**-CONN mother-**ABL** gift-ACC one-**apiece** get-PAST-DECL.PLAIN

'The child got one present from father and mother respectively.'

b. (?/*) 그아이가 아버지**에게서**와 어머니**에게서** 선물을 하나**만** 받았다. (1,67/5)

 *ku.ai-ka   apeci-**eykeyse**-wa emeni-**eykeyse** senmwul-ul   hana-**man** pat-ass-ta*

that.child-NOM father-ABL-CONN mother-ABL   gift-ACC one-**only** get-PAST-DECL.PLAIN

 (?/*) ' The child got only one present from father and from mother.'

    The same concerns also the plural marker *-tul* (-들). We have already mentioned (see the description of Copied Plural Marking in 4.1) that non-canonical usage of this marker in simple structures (i.e. without coordination) encodes either focus or distribution of an event. I suggest that the identical approach can be applied to double plural-marking in nominal &Ps where it has the same distributive effect: in (114), for instance, 'excessive' medial specification of the plural underlines that men and women use the same toilet in different time-spots, or that they use different toilets. And, as in overspecification of case, double plural marking is less natural in a specifically collective context (cf. 112b with moderate level of grammaticality).

(114) [28a]

남자들과 여자들은 여기 화장실 별도로 사용해요. (4,33/5)

*namca-**tul**-kwa   yeca-**tul**-un   yeki hwacangsil **peyltolo** sayonghay-yo*

   man-PL-CONN woman-PL-TOP here   toilet   **separately**   use-DECL.POL

'Men and women use the local toilet(s) separately.'

4.3 Summary

In this chapter, motivations of optional overspecification of inflectional categories in coordinate (conjoined) structures have been explored. It was suggested that optionality in general and overspecification (i.e. optional affix addition) in particular do not always lead to redundancy. The functional approach that interprets the 'overt marking vs. non-expression' opposition for single words in terms of different informational status has

been extended to conjoined structures. It has been shown that 'excessive' affixation of non-final conjuncts performs some pragmatic duties and encodes focality or distribution (see Figure 14):

- in Korean verbal &Ps overspecification is mostly used as a tool of expanding focus ('x and also y')

- a slight tendency towards parallel contrastive focus ('x whereas y') has been also detected in verbal &Ps

- in nominal &Ps overspecification serves as an instrument of distribution ('X &Y each')

- usage of overspecification as expanding focus in nominal &Ps ('X and also Y') has been not confirmed by empirical data

Figure 14. Functions of overspecification

Optional overspecification

contrastive focus   **distribution**

                                        in nominal &Ps

parallel   **counter-presuppositional**   (confirmed)

in verbal &Ps   **expanding**

(slight tendency)

            in verbal &Ps   in nominal &Ps

            (confirmed)   (unconfirmed)
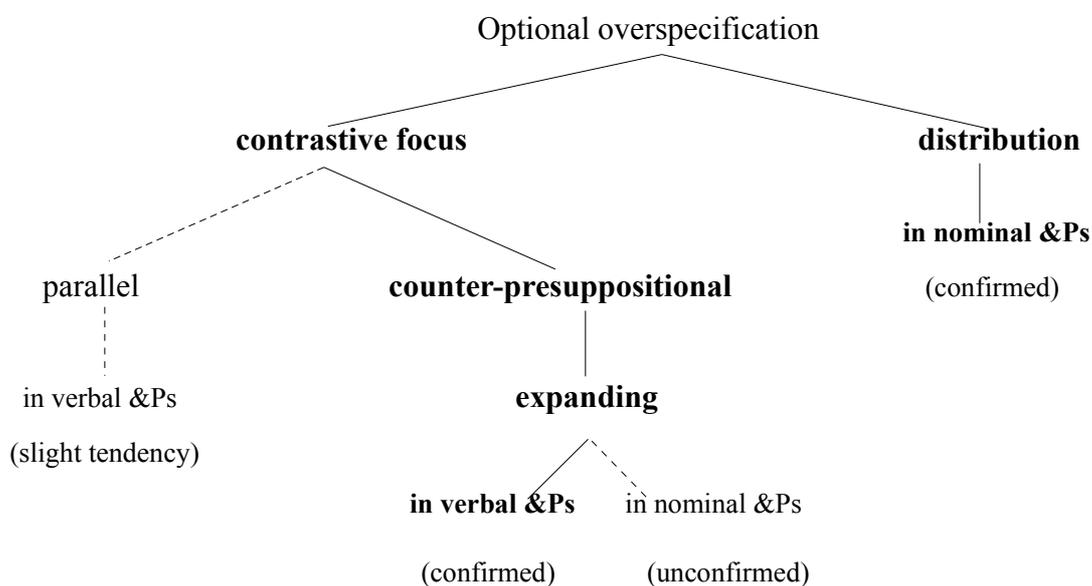
Chapter 5

OAH in a cross-linguistic perspective

In this chapter I will outline some cross-linguistic generalizations which come to light in the context of the OAH phenomenon.

5.1 OAH typology

One of the most intriguing things about OAH is that 'it is not an automatic process' (Plank 2006): sometimes optionality of affixation is licensed, sometimes it is not. When optionality is licensed, *either of two* patterns can be used: a) *overt marking* (e.g. *X-suf & Y-suf*), or b) *non-marking* (e.g. *X_ & Y-suf*). When under some circumstances optionality is not attested (for certain values in the paradigm, or for the whole paradigm but only in a particular phonological environment, or for some other reason), *one* of these patterns turns into an *obligatory* form, e.g.

(115)

a. *X-suf & Y-suf* / **X_ & Y-suf* ,   or   b. *X_ & Y-suf* / **X-suf & Y-suf*.

This obligatory form is to be regarded as default, because it is always attested: as the only possible variant in an obligatory environment and also as one of two possible variants in an optional milieu (see our definition of 'default' in Chapter 1).

Different languages demonstrate different inclinations with regard to which strategy they choose as default: some languages prefer to employ the principle of *iconicity* (115a) with overt specification of morpho-syntactic properties on both conjuncts (*X-suf & Y-suf*), others favour the principle of *economy* (115b), when one conjunct is left unmarked (*X_ & Y-suf*). Two types of default suggest two types of optionality. The first type (A) is *optional affix omission*, with iconicity (overt affix marking) as default and affix omission (underspecification) as option:

(116) Type A: optional affix omission

default: marking	X_{SUF} and Y_{SUF}
option: omission	$X\_$ and Y_{SUF}

This type of default/option relation can be found, for instance, in Turkish: when affix addition causes any phonological alternation in the hosting stem, as in (117a) (cf. also (22) in Chapter 1), optionality fails and both conjuncts *must* keep their inflection. With no phonological alternation the non-final conjunct enjoys optionality of affixation (117b).

(117)

a. *ban-a (*ben-Ø, *ban-Ø) ve   san-a*

   I-DAT   and   you-DAT

'to me and you'

b. *Mehmet(-'e) ve   Ahmet-'e*

 Mehmet(-**DAT**) and   Ahmet-DAT

'to Mehmet and Ahmet'

   The default principle of economy naturally implies another type of optionality – *optional affix insertion* (type B) with affix non-expression as default and affix insertion (i.e. overspecification) as option:

(118) Type B: optional affix insertion

default: non-marking	X and Y_{SUF}
option: insertion	X_{SUF} and Y_{SUF}

Korean belongs to languages of the latter type: in previous chapters we have already shown that it is always possible to leave the non-final conjunct (verbal as well as

nominal) unmarked, whereas medial inflection is licensed only for a restricted class of affixes.

Therefore, Korean and Turkish, both being highly agglutinative and even affiliated to the same Altaic language family, employ two different default strategies and, accordingly, exhibit two different types of optionality: Turkish demonstrates optionality of the A-type, or optional affix omission (traditionally referred to as 'suspended affixation'), and Korean belongs to the B-type, or optional affix insertion (addition).

Figure 15. OAH typology

OPTIONAL AFFIX HOSTING

Type A	Type B
optional affix OMISSION	optional affix INSERTION
in Turkish (= suspended affixation)	in Korean

5.2 Conducive syntactic milieu for OAH

From the definition of default and option, it follows that the existence of an option always implies the existence of default. But the reverse situation is not always true: the existence of default does not automatically implies the existence of optionality, the default pattern can be obligatory and the only possible pattern a language licenses. In this section we will explore whether and how optionality can be predicted.

It seems that there is no universal parameter that triggers (or constrains) optionality cross-linguistically: in all cases observed restricting constraints are always language-specific. Neither semantic categories (like (in)animacy, semantic (a)symmetry, natural vs. accidental coordination) nor phonology, nor morphology can be considered as the ultimate factor determining the inner mechanism of OAH in all languages. But does this

really mean that no typological generalizations can be made about OAH at all? If not a universal trigger/constraint, perhaps the diversity itself can be predicted by some cross-linguistically valid principle?

If the placing of a word into a coordinate structure immediately changes the word's inflectional (i.e morpho-syntactic) behaviour,[67] then it is safe to say that it is one of *syntactic* parameters of coordination that is responsible for optionality/obligatoriness of (non-) marking in conjoined structures. The parameter that can be directly associated with medial inflection is *coordination tightness* which has two syntax-relevant formal dimensions: distance (length) and marking pattern of coordination. The formal distance phonetically is determined by the time interval between expressions (Haiman 1985: 102), morphologically – by the nature and number of morphemes that lie between them (Haiman 1985: 105) and syntactically – by the phrase-, clause-, and sentence-like syntactic structures within the coordination (Wälchli 2005: 67). The marking pattern of coordination is mostly determined by the syndetic or asyndetic type of conjoining, i.e. the presence or absence of an overt connector as well as the degree of its grammaticalization. These two formal parameters (distance and (c)overt connector) can be very helpful in exploring the question of the conducive syntactic milieu for optional inflection.[68]

It seems reasonable to assume that the principle claiming that 'a high degree of tightness in coordination implies minimal distance between the coordinands' (Wälchli 2005: 67) can work in both directions and that the converse is also correct, i.e. *the minimal distance implies a high(er) degree of tightness*. It follows from this logic that:

- the shorter the minimal distance, the tighter the coordination
- the tighter the coordination, the less inflection is allowed to appear in between, i.e. *the shorter the minimal distance the less inflection is allowed to appear in between*

---

67 Consider, for instance, the accusative case marker in Korean, which enjoys optionality by *single* word specification but undergoes obligatory omission from medial *conjuncts* (cf. (1) and (2) in the Introduction).

68 For optionality of medial inflection in monosyndetic structures, the second parameter – 'coordinator and degree of its grammaticalization' is of particular significance, since not simply the formal distance between two conjuncts may be taken into account but also the distance between the non-final conjunct and overt connector.

Accordingly, the long distance creates the opposite effect:

- the longer the minimal distance, the looser the coordination
- the looser the coordination, the more inflection is allowed to appear in between, i.e. *the longer the minimal distance, the more inflection is allowed to appear in between*

Being applied to different syntactic environments, the principle of distance would result in different inclination to optionality/obligatoriness of medial inflection (see Table 7). In coordinate structures (i.e. in structures with two independent (equally ranked) elements conjoined), the short distance can weaken the iconic principle of affixation so that optionality of type A (optional affix omission) can be expected. The long distance, on the contrary, would just strengthen the isolated status of coordinated conjuncts implying their obligatory marking and preventing any affix dropping.[69] In the hierarchical (subordinate) environment (i.e. with dependence of one conjunct on another), we can expect optionality of type B (optional affix addition) in structures with long-distance conjoining, in which the basic tightness can be potentially loosened by the formal length and some inflection can surface in between. The close distance would increase the tightness of subordination and lead to obligatory non-marking of one conjunct.

Table 7. Conducive syntactic milieu for OAH

conjoining model	coordination		subordination	
distance	long	close	long	close
inclination to	no optionality (obligatory marking)	optional omission	optional insertion	no optionality (obligatory non-marking)

---

69 In Turkish, for instance, some suffixes/endings can be potentially dropped from the first predicate in 'SOV & SOV' structures. At the same time, omission of the same affixes is not allowed in 'VSO & SOV' structures, in which subject and object placed after the first predicate lengthen the formal distance between two verbal conjuncts (Barış Kabak, personal communication).

Of course, the formal distance should not be considered as the only parameter determining optionality or obligatoriness of inflection in natural languages. Intolerance to optionality of affixation can be motivated by a number of reasons. In some languages the tight morpho-phonological cohesion (based, for instance, on fusion of morphemes or on a particular prosodic model) keeps the lexical integrity of the word. In other languages, the analytic type of morpho-syntax tends to separate lexical meaning from grammatical properties. Such languages encode inflectional categories as independent words (e.g. as auxiliary verbs or articles), but not as affixes, which leads to lexical ellipsis or gapping but not to OAH. Table 7 simply presents an (un-)favourable *syntactic* environment for OAH that can be influenced, however, by various factors in a particular language. Since it was difficult within a small-scale per-mail survey to verify, what effect the formal distance *par excellence* (i.e. being separated from all other factors) has on optionality in different languages, further research (perhaps neuro- or psycholinguistic) is needed to validate this assumption.

5.3 Directionality of OAH

The final typological generalization will be made about localization (or directionality) and order of optional affix hosting. In all cases observed, optionality (regardless of the type, A or B) occurs only in non-final conjuncts, i.e.

(119) $X_{(SUF)}$ *and* Y_{SUF}

Optionality in suffixing of the final conjunct when the non-final is marked (i.e. X_{SUF} *and* $Y_{(SUF)}$) would lead to ill-formedness of the variant with omitted inflection, as examples (120) and (121) show (cf. also examples (81c) and (85') repeated here as (122) and (123)).

(120) [10b]

* 그아이가 아버지**에게**와 어머니 선물을 주었다.

    *ku.ai-ka   apeci-**eykey**-wa   emeni   senmwul-ul   cwu-ess-ta*

that.child-NOM   father-**DAT**-CONN   mother   present-ACC   give-PAST-DECL.PLAIN

(121) Sohn (1995: 128)

John이 춤을 추었고 Mary가 노래를 한다.

  *John-i   chwum-ul   chwu-**ess**-ko   Mary-ka   nolay-lul   ha-nta*

John-NOM   dance-ACC   dance-**PAST**-CVB   Mary-NOM   song-ACC   sing-DECL.PLAIN

'John danced and Mary is singing.' (But! * 'John danced and Mary sang.')

(122) [8b]

* 그아이가 아버지**에게서**와 어머니 선물을 받았다.

    *ku.ai-ka   apeci-**eykeyse**-wa emeni   senmwul-ul   pat-ass-ta*

that.child-NOM   father-**ABL**-CONN   mother   present-ACC   get-PAST-DECL.PLAIN

(123) [5b]

* 연세대 교수들과 학생이 일본을 방문했다.

  *yensey.tay   kyoswu-**tul**-kwa   haksayng-i   ilpon-ul pangmwunhay-ss-ta*

Yonsei.university professor-**PL**-CONN   student-NOM   Japan-ACC visit-PAST-DECL.PLAIN

I believe that such an approach to the directionality of OAH can be interpreted structurally. When we keep an affix in one conjunct only, this 'phrase affix' (i.e. the affix that remains undropped) will assign the corresponding morpho-syntactic property(-ies) not just to the single word it is attached to, but to both conjoined elements. Structurally, this affix becomes the head of the whole construction, since all conjuncts are supposed to lie in its scope (semantic domain). That will be possible only if this affix occupies the edge position - in our case, the rightmost periphery in the second conjunct (see Figure 16a). At the same time, keeping inflection only in the first conjunct would lead either to reduced semantic domain of the affix (with one conjunct falling out of its scope, i.e. [A-suf] & [B]), or to branch-crossing (Figure 16b), i.e.

violation of the linear principle of final headedness.[70]

Figure 16. Localization of OAH

a.   b.

X and Y ₛᵤբ   * *X* ₛᵤբ *and Y*
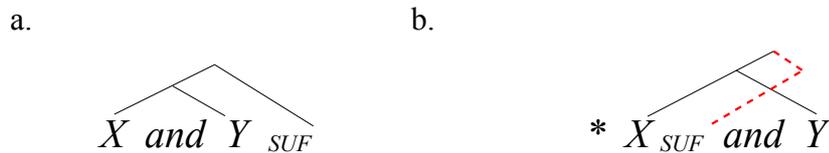
The linear principle of headedness should be respected not only for localization but also for the order of OAH. If a stem can optionally host more than one affix, the hosting process seems to proceed in the linear order as well. Turkish suspended affixation provides us with an instructive case illustrating how this principle works in a natural language. The affix suspension always goes from periphery to the core (124a) so that the more central plural marker -*ler* with the personal agreement marker -*im* cannot be dropped when the more peripheral accusative case-marker -*i* is left in the first conjunct (124b).

(124) Turkish

a. kedi-ler-im_ ve köpek-ler-im-**i**

cat-PL-1SG.POSS_ and dog-PL-1SG.POSS-**ACC**

'my cats and dogs (acc.)'

b. * kedi-**yi** ve köpek-<u>ler-im</u>-**i**

   cat-**ACC** and dog-<u>PL-1SG.POSS</u>-**ACC**

(intended reading) 'my cats and dogs (acc.)'

---

70 It is not my intention to claim that the head of a morphologically complex construction is always the righthand element of the construction, an assumption that Williams 1981 made (and Zwicky 1985 criticized). The Right-hand Head Rule is, probably, not universal, and in head-initial languages prefixes may spread their scope over the whole construction (see the survey of Bantu prefixes in van Beurden 1988). In this case, the head position would occupy the left periphery and the linear principle of headedness would prevent the keeping of prefixes in the final conjunct, when they dropped from the first one (ₚᵣₑբ -*X and Y* vs. **X and* ₚᵣₑբ-*Y*).

The ill-formedness of (124b) has a clear structural interpretation: if we leave the accusative case-marker (*S3* in Figure 17) alone in the first conjunct, the plural marker and the personal agreement marker (*S1* and *S2* respectively) have no chance to spread their scope over the whole construction without branch-crossing.

Figure 17. Linear order of OAH

(*)
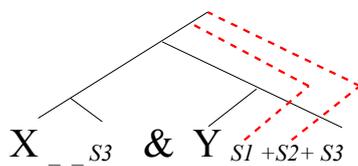
$$X \_ \_{}_{S3} \quad \& \quad Y \,_{S1 +S2+ S3}$$

As for other hypothetical scenarios of OAH, we can expect from permissible variants that they also would respect the linear order of hosting (125 a, b), whereas illegitimate forms would violate this principle (125 c-e).

(125)

a . $X_{S1\_\_}$ & $Y_{S1+S2+S3}$

b. $X_{S1+S2\_}$ & $Y_{S1+S2+S3}$

c. * $X_{\_\_S3}$ & $Y_{S1+S2+S3}$

d. * $X_{\_S2\_}$ & $Y_{S1+S2+S3}$

e. * $X_{\_S2+S3}$ & $Y_{S1+S2+S3}$

Examples from the natural language (126) appear to support this view: when the linear order of affix omission (peripheral before central) is broken, that results in an ill-formed structure.

(126) Turkish (Kabak 2006)

a.   bak-ıl-acak-tı-lar   ve   onar-ıl-acak-tı-lar

look-PASS-FUT-PAST-3PL and fix-PASS-FUT-PAST-3PL

'They were going to be looked at and fixed.'

b. * bak-_-acak-tı-lar   ve   onar-**ıl**-acak-tı-lar

  look-_-FUT-PAST-3PL and fix-**PASS**-FUT-PAST-3PL

c. * bak-ıl-_-tı-lar   ve   onar-ıl-**acak**-tı-lar

 look-PASS-_-PAST-3PL and fix-PASS-**FUT**-PAST-3PL

d. * bak-ıl-_ _-lar   ve   onar-ıl-**acak-tı**-lar

look-PASS-_-_-3PL and   fix-PASS-**FUT-PAST**-3PL

Optional affix insertion in Korean demonstrates similar behaviour. Here, more peripheral affixes (e.g. the modal suffix -*keyss* in (127)) cannot be added to the non-final conjunct prior to the more central one (the past tense suffix -*ess*) in order not to violate the linear principle of headedness.

(127) [63a, 63b]

a. (?)

iss-**ess**-_-ko   iss-**ess-keyss**-supnita

be-**PAST**-_-CVB   be-**PAST-MOD**-DECL.FORM
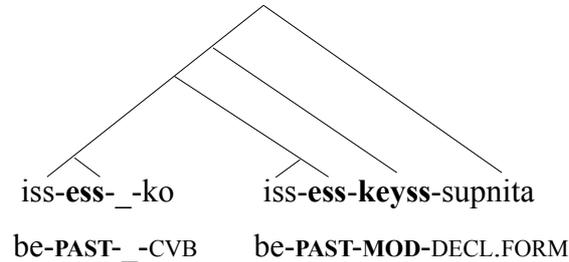
b. (?) 제주도에는 비가 오는 곳이 있**었**고 강원도에는 눈이 날리는 곳이 있**었겠**습니다. (2,13/5)

    *cecwu.to-ey-nun   pi-ka   o-nun   kos-i   iss-**ess**-_-ko*

Cheju.island-LOC-TOP rain-NOM come-ADN place-NOM   be-**PAST**-_-CVB

     *kangwen.to-ey-nun   nwun-i nalli-nun   kos-i   iss-**ess-keyss**-supnita*

Kangwon.province-LOC-TOP snow-NOM fly-ADN   place-NOM   be-**PAST-MOD**-DECL.FORM

'(It seems/They say) It was raining in Cheju-island and snowing in Kangwon-province.'

c.   (*)

iss-_-k**eyss**-ko   iss-**ess**-keyss-supnita

be-_-**MOD**-CVB   be-**PAST-MOD**-DECL.FORM
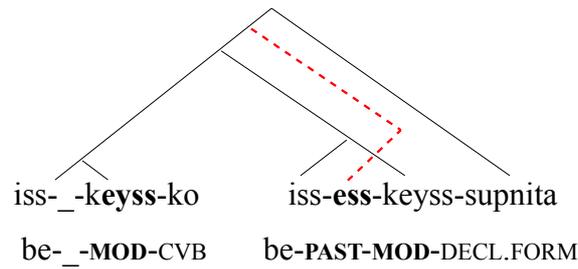
d. (*) 제주도에는 비가 오는 곳이 있**겠**고 강원도에는 눈이 날리는 곳이 있**었겠**습니다. (1,33/5)

    cecwu.to-ey-nun   *pi-ka*   *o-nun*   *kos-i*   *iss-_-keyss-ko*

Cheju.island-LOC-TOP   rain-NOM come-ADN   place-NOM   be-_-**MOD**-CVB

    kangwen.to-ey-nun   *nwun-i* *nalli-nun* *kos-i*   *iss-**ess-keyss**-supnita*

Kangwon.province-LOC-TOP snow-NOM fly-ADN place-NOM be-**PAST-MOD**-DECL.FORM

5.4 Summary

This chapter provided a cross-linguistic perspective on OAH exploring how this phenomenon can contribute to typological studies. First, this chapter has argued that the concept 'optionality' should be subdivided into two classes, A and B. Optionality of the A-type is an option *to drop* suffixes from the non-final conjunct, resulting in *single* marking of the final conjunct (i.e. optional underspecification). Optionality of this type can be observed in languages like Turkish, where affix dropping is not always licensed and even when it is, then any dropped affix can be freely restored (i.e. iconicity by default). Optionality of the B-type is an option *to mark* non-final conjuncts with the same suffixes as the final one, i.e. *double* marking of both conjuncts (or optional overspecification). This type of optionality can be found in Korean, where due to the highly hierarchical syntax it is not always possible to suffix the first conjunct and even when it is, any added suffix can be freely deleted (i.e. economy by default). The notion '*optional affix hosting*', therefore, is a more general term to refer to both types of

optionality, A and B.

The second question raised in this part was 'which syntactic environment favours and which disfavours OAH?' It has been suggested that optionality of in-between inflection in coordinate structures is correlated with the degree of coordination tightness (formally determined by the coordination length and the connector type). 'Tight' conjoining may result in optional affix omission in 'iconic' structures, whereas 'loose' conjoining may enable optional affix addition in hierarchical structures employing the principle of economy by default.

Finally, some structural aspects of OAH were addressed. It has been shown that regardless of the OAH type ('A' as in Turkish or 'B' as in Korean) optionality in specification of inflectional categories always proceeds in a linear order maintaining the principle of peripheral headedness, so that a more central element cannot be the head of a more peripheral. In accordance with this principle, optionality of suffixation occurs only in the non-final (i.e. left) conjunct, when the final one (i.e. right) is suffixed; the converse does not hold. Moreover, the same principle of peripheral headedness predicts the order in which multiple optional suffixes may surface in the left conjunct: more central suffixes are to be attached first and to be removed last, more peripheral – to be dropped first and added last. Or, in other words, affix omission goes from more peripheral to more central affixes, whereas affix addition goes in the reverse direction – from more central to more peripheral.

Chapter 6
Conclusion

The main focus of my dissertation is on optional affixation; in particular, on optional specification of inflectional categories. Inflectional categories traditionally considered as obligatory (in contrast to facultative derivational) are optional to express in some languages, especially in languages with agglutinative-type morphology, such as Turkish, Korean etc. Optionality of inflection is one of the most prominent and representative properties of agglutination; this is a wide-spread phenomenon very well-known in linguistics. The previous studies in this area, however, dealt mostly with optionality in marking of single words, whereas inflection behaviours in coordinate structures have not yet been explored in sufficient detail.

To bridge this gap, I have suggested a notion of 'optional affix hosting' (OAH) that denotes a possibility to *either* affix *or* not to affix the hosting stem/root of one conjunct, if the second one is already affixed identically. This reading of optionality (i.e. when both marking and non-marking are technically possible) differs from definitions given to optionality in other frameworks, where 'option' is understood as an *obligatory* alternative to some default pattern. Yet 'true' optionality presumes that cases of obligatory affix marking or obligatory affix omission cannot be regarded as OAH. In addition to the requirement of 'true' optionality, four more requirements of OAH have been proposed. The requirement '*affixation*' excludes any lexical item (roots, stems or independent words) as well as any unit below the morphological level (phonemes and syllables) from this definition. Introducing the requirement '*regularity*', I assume that OAH has to be a regular phenomenon, rather than a random particular case of articulation or graphics. The condition '*identity*' implies that only identical affixes are required for OAH. It also follows from the definition of OAH that optional (i.e. free to drop and to recuperate) affixation is supposed to mark a *conjunct*, i.e. to be a part of a coordinate structure. That prevents us from mixing OAH with such phenomena of morphological non-expression as phrase marking, sentence clitics and serial verb

constructions.

Having formulated in the Introduction a precise definition of what OAH is (and what it is not), I turned to the main goal of my research: optional inflection (both verbal and nominal) in Korean balanced simple binary *and*-coordinating constructions with an overt coordinator. With regard to the fact that optionality of affixation is not an automatic process, I had to find out firstly, which affixes can be expressed optionally in Korean and under which circumstances and secondly, what motivates overspecification (affixation of both conjuncts) in structures where single marking is absolutely sufficient.

In Chapter 2 I explored optionality in specification of verbal affixes. It has been shown that Korean belongs to the range of 'chaining' languages, in which it is simply not possible to conjoin two equally ranked independent verbs within one sentence. In such languages, any medial verb (converb) ought to contain a non-finite ending that indicates its structural dependency from the dominating final verb with a finite ending. That suggests that OAH in Korean verbal &Ps can potentially affect only 'inside' suffixes located between lexical root and final ending (connective for medial verbs and finite for final verbs). The general tendency for Korean medial verbal affixation can be described in the following way: functionally (and positionally) more central suffixes are less separable from the root in medial conjuncts, whereas more peripheral suffixes are easier to drop from them. I have proposed that morphological template of the Korean verb can be divided into four layers:

- affixes from zone A (nearest to the root) are *lexically* relevant and cannot be omitted in any environment
- *agent*-oriented affixes of zone B are optionally separable and can survive in subordinate clauses
- *speaker*-oriented affixes of zone C are optionally separable in coordinate clauses and obligatory to drop in subordinate ones
- affixes from the *addressee*-oriented zone D must be obligatorily substituted in non-final clauses and are obligatory to be present in final clauses

Thus, only agent- and speaker-oriented suffixes occupying an intermediate position in this array constitute a case for optional affix hosting, since the most central suffixes are

obligatory to be present and the outermost suffixes are obligatory to omit/substitute.

Chapter 3 deals with optionality of nominal inflection and continues to follow the general concept arguing that not simply (morpho-) phonological or some other properties of hosting stems but rather *functional* properties of attached affixes themselves play the most important role for OAH in Korean. Similarly to verbal &Ps, Korean nominal conjoining (more *with*-like than *and*-like) also reveals a very high degree of head-final hierarchy. In this hierarchical environment, only a few nominal suffixes can optionally surface in non-final conjuncts, while the rest are doomed to obligatory omission. Inclination to optionality or to obligatory non-expression is determined by the position affixes occupy in the functional continuum of nominal inflection. If some affix assigns a *lexically* relevant property (e.g. animacy or number), it can optionally be kept in the subordinated medial noun. Pure *syntactic* (subject, object, head/modifier relation) and *pragmatic* (addressee-oriented) functions form the outermost periphery of the continuum, totally insensible to the 'gravity' of the lexical core. Affixes from this periphery have no chance to survive in the hierarchical environment of Korean nominal conjoining. Affixes encoding some *semantic* functions (e.g. tool, source, location, direction etc.) occupy an intermediate position in this continuum and demonstrate variable behaviour in regard to OAH: for some native speakers they are allowed to appear on medial conjuncts, for others this is ungrammatical. Of course, there are no clear boundaries between these three functional domains: affix properties increase and decrease gradually, forming a continuum with 'grey areas' in transfer zones of joint influence.

Cases of OAH observed in Chapters 2 and 3 have shown that there is no obligatory medial inflection in Korean: even when some affixes are allowed to appear in the non-final conjunct, they can be omitted at any time and this omission would never conflict with grammaticality. In light of this fact, the following question should be answered: 'Why does the language keep the option to specify the same property twice on both conjuncts, when single 'group' marking alone is absolutely sufficient?' Claiming that any overspecification is not redundant for single words, the functional approach traditionally interprets the 'overt marking vs. non-marking' opposition in terms of different informational status. In Chapter 4 I have extended this approach to conjoined

structures and argued that optional affixation of non-final conjuncts has functional motivation and is used mostly as an instrument of expanding focalization ('x and also y') in verbal &Ps, and as a tool of distribution ('X &Y each') in nominal &Ps.

In Chapter 5 some cross-linguistic generalizations about the OAH phenomenon have been made. First, the typology of OAH has been suggested. The type of optionality Korean enjoys is not the only one that can be encountered cross-linguistically. In some languages (e.g. Turkish) it is always possible to mark both conjuncts with identical affixes, whereas omission of medial inflection may result in an ill-formed structure. Basing my argument on the concept of default (i.e. a model that needs no preconditions), I have proposed the following classification of OAH: if the default model is 'iconic' and specifies inflectional properties on both conjuncts, then cases of optionality can be regarded as *optional affix omission* (or 'suspended affixation', or optionality of A-type). When a language prefers the principle of 'economy' by default (i.e. 'phrasal' inflection on one conjunct), then cases of optionality can be regarded as *optional affix insertion* (or optionality of B-type). The notion '*optional affix hosting*' introduced in my dissertation is a hypernym, including both types of optionality, A and B. The second generalization has been made about a conducive milieu for OAH. Since OAH is not an automatic process, I have considered which environment is more favourable for optional inflection. It has been suggested that optionality of type A (optional affix omission) is more likely to be found in a coordinate environment with a short formal distance between conjuncts, while optionality of type B (optional affix insertion) can be expected in a subordinative environment with a long formal distance between conjuncts. Finally, I have explored some structural aspects of OAH: localization and directionality. It has been claimed that OAH always proceeds in a linear order with respect to the principle of peripheral headedness, when a head is to occupy the edge position (the rightmost for suffixes and the leftmost for prefixes) in order to have the whole construction in its semantic domain. That is why in head-final languages such as Korean or Turkish which predominantly employ suffixation as the main type of inflection, OAH occurs only in the non-final (left) conjunct, while the final (right) conjunct hosts the 'head'. The same linear principle prescribes the order of OAH, when non-final conjuncts host more than one medial suffix: omission always goes from more

peripheral to more central suffixes, whereas suffix addition – from more central to more peripheral ones.

In closing, I believe that. this dissertation has provided a new view on the phenomenon of optional inflection in agglutinative languages. Optionality (often understood only intuitively so far) has received a precise definition. A unified functional approach accounting for cases of OAH both in verbal and nominal Korean &Ps has been suggested. Amongst other things, this approach has shown that not only the boundaries between lexical items, derivation and inflection are not clear-cut, but inflection itself forms a continuum, different items of which behave differently in regard to optionality in conjoined structures. Additionally, the functional approach demonstrates why languages go beyond the strict system of prescribing rules and restricting constraints: they keep optionality in their technical arsenal as a tool for pragmatic goals. I hope that results of my research focused on Korean will be confirmed by further studies exploring the phenomenon of optional affix hosting in other languages.

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Appendix

A. Survey description

In November of 2013, I conducted a small-scale survey based on gradient grammaticality judgement tasks among native speakers of Korean. The survey includes all Korean examples discussed in the dissertation. The main aims of the study were: i) to measure the degree of grammaticality of medial ('inside') inflection in Korean coordinate structures; ii) to find out what motivation such 'excessive' overspecification has, and iii) to check whether the order of affix omission/insertion has structural regularities.

Participants

Before being allowed to start the experiment, each subject had to fill in a short questionnaire supplying age, sex, place of birth, handedness and presence/absence of any background in linguistics (general linguistics, foreign language linguistics or Korean philology). The study involved 15 native speakers with higher education from different parts of South Korea (Seoul metropolitan area – 9, Kyenggi province – 1, Chungcheng province – 1, Taegu metropolitan area – 1, Kyengsang province – 1, Pusan metropolitan area – 2). Of these, 7 subjects were male, 8 female; 14 subjects were right-handed and one was ambidextrous. The age of the subjects ranged from 21 to 59 years (mean age – 33,67 years, range – 38). Participants included both linguists and naïve speakers of Korean, but the linguists outnumbered those without any background in linguistics (i.e. there were 10 linguists and 5 naïve speakers).

Tasks

In the survey, participants were presented with a series of 63 pairs of sentences (numbered from 1 to 63). Each number contained two sentences, (a) and (b). The informants were asked to compare sentences (a) and (b) and evaluate the formal grammaticality of each sentence on the scale given below. Comparing sentences in each pair, respondents necessarily had to show their preferences; i.e. even in cases, when they found both patterns equally (un)grammatical, they were not allowed to give the same grade to (a) and (b) (in order to avoid an unconcerned attitude to items which are

difficult to judge). A potential forcing effect could be easily detected through massive usage of immediately neighbouring check-boxes for (a) and (b) by most respondents. For isolated (i.e. infrequent, non-massive) cases, the influence of forced results is insignificant and is neutralized through statistical representation.

Scale

Recent research in experimental linguistics (e.g. Bader & Häussler 2010, Weskott and Fanselow 2011, Schütze & Sprouse 2014) show that different methods of grammaticality/acceptability measurement (i.e. magnitude estimation vs. scales, timed vs. untimed responses, speeded vs. unspeeded judgements etc.) bring very similar results. For this reason, a more traditional 6-grade scale was used for the survey. The even-point scale was used to prevent respondents from giving the easiest (i.e. the very middle) option when they are unsure about the answer. A smaller number of grades (≤4) would not serve the main purpose of the study - to detect and to measure tiny differences in grammaticality degree of optional (i.e. technically both possible) patterns and to build a continuum of Korean inflection with items located very closely to each other. On the other hand, more points on the scale (≥8) could be potentially difficult to process, making participants count grades on the scale and preventing them from giving intuitive responds. Hereby, the left edge of the 6-grade scale referred to total ungrammaticality and was marked with a 'frown' emoticon. The right edge of the scale referred to total grammaticality and was marked with a 'happy' emoticon. Grades lying between these two edges did not have any specification.

Procedure

The questionnaires with items to judge were sent to participants as a text- and/or as a pdf-file via e-mail. Participants had no time restrictions for evaluation.

Results representation and interpretation

In order to create a statistical representation, each grade on the scale was allocated a corresponding number of points increasing from '0' for the leftmost grade to '5' for the rightmost grade (participants were not informed about this assignment). The average

grammaticality rate for each pattern was calculated as a result of division of the total sum of points obtained from all participants by the total number of participants (15 persons).

To interpret results in terms of gradient grammaticality, the scale was divided into three even parts: patterns with grammaticality rate from '0' to '1,66' were considered as ungrammatical, from '1,67' to '3,33' as moderately grammatical, and from '3,34' to '5' as grammatical.

B. Instructions

The experiment you are participating in is part of my PhD-research at the University of Konstanz (Germany). I very much appreciate your willingness to assist me in this work. If at any point you are unclear about anything you are asked to do, please feel free to send me an e-mail for clarification: Georgij.Nowossjelow@uni-konstanz.de

INSTRUCTIONS

1. Please fill in the questionnaire below. No personal data about name, age, gender, place of birth, educational background or handedness will be published: this information is necessary for statistical representation of average age, general number of male and female participants, general number of right/left handers etc.

성명 (Name):

나이 (Age):

성별 (Sex):　남 (male) ☐ /　여 (female) ☐

탄생지 (Place of birth):

대학 전공 (Academic major) :

국어/국문 (Korean philology)　☐

외국어 (Foreign language)　☐ _____

(please specify, e.g. English, German, Japanese etc.)

언어학 (Linguistics)　☐

기타 (Other)　☐ _____

(please specify)

펜 들고 쓸 때: 오른손잡이 ☐ / 왼손잡이 ☐ / 양수잡이 ☐

(when writing): (right-handed) (left-handed) (ambidextrous)

You can add text (for instance age, or place of birth) to a pdf- file with the 'sticky notes'-option: place the pointer onto the field you want to edit, press the right button on the mouse and choose the 'add sticky note'-option. If you have problems with this, you may use the Word-version of this questionnaire.

2. Below you will find a list with 63 pairs of sentences (numbered from 1 to 63).

3. Each number contains two sentences, (a) and (b).

4. Compare sentences (a) and (b) and evaluate their **formal grammaticality** by selecting one of six check-boxes: the rightmost check-box (marked with a 'happy' emoticon) corresponds to a totally grammatical sentence, the leftmost box (marked with a 'frown' emoticon) – to a totally ungrammatical. You may also choose any of the middle check-boxes varying by that the degree of grammaticality. Check-boxes are interactive: just click on it and it will be checked.

☐   ☐   ☐   ☐   ☐   ☐

☹   ☺

5. Evaluate the grammaticality of EACH sentence in the pair, i.e. both (a) and (b).

6. *Important*! Please use **DIFFERENT** check-boxes for (a) and (b). For example,

a.   b.

☒ ☐ ☐ ☐ ☐ ☐   ☐ ☐ ☐ ☐ ☐ ☒

☹   ☺   ☹   ☺

, or

a.   b.

☐ ☐ ☐ ☐ ☒ ☐   ☐ ☐ ☐ ☐ ☐ ☒

😕   🙂   😕   🙂

, or

a.   b.

☒ ☐ ☐ ☐ ☐ ☐   ☐ ☒ ☐ ☐ ☐ ☐

😕   🙂   😕   🙂

, or

a.   b.

☐ ☒ ☐ ☐ ☐ ☐   ☐ ☐ ☒ ☐ ☐ ☐

😕   🙂   😕   🙂

Even if you think that both (a) and (b) are equally (un)grammatical, please show your preferences and use different check-boxes ANYWAY!

7. When you get through all 63 pairs, please save the document and send it back to me: Georgij.Nowossjelow@uni-konstanz.de

8. If you have problems with adding text to the .pdf-file (e.g. age, place of birth etc.), you can provide this information in the body of the e-mail (you may also use the Word-version of this questionnaire).

Thank you very much for your assistance in the work!

Georgij Nowossjelow

University of Konstanz, Germany

C. Survey results

1. This item shows that overt marking of a single direct object is allowed, whereas medial accusative is ungrammatical.

a. 영수가 책을 읽는다.

   *Yengswu-ka   chayk-**ul**   ilk-nunta*

Yeongsoo-NOM   book-**ACC** read-DECL.PLAIN

b. 영수가 책을과 신문을 읽는다.

   *Yengswu-ka   chayk-**ul**-kwa   sinmwun-ul   ilk-nunta*

Yeongsoo-NOM   book-**ACC**-CONN newspaper-ACC read-DECL.PLAIN

average index \ grade	"0"	"1"	"2"	"3"	"4"	"5"
5 (75/15)	-	-	-	-	-	15 pers.

average index \ grade	"0"	"1"	"2"	"3"	"4"	"5"
0 (0/15)	15 pers.	-	-	-	-	-

2. This item shows that overt marking of a single direct object is optional (cf. 2a and 1a).

a. 영수가 책 읽는다.

   Yengswu-ka   chayk   ilk-nunta

Yeongsoo-NOM   book read-DECL.PLAIN

b. 영수가 책을과 신문을 읽는다.

   *Yengswu-ka   chayk-**ul**-kwa   sinmwun-**ul**   ilk-nunta*

Yeongsoo-NOM   book-**ACC**-CONN newspaper-**ACC** read-DECL.PLAIN

average index \ grade	"0"	"1"	"2"	"3"	"4"	"5"
3,53 (53/15)	-	2 pers.	1 pers.	4 pers.	3 pers.	5 pers.

average index \ grade	"0"	"1"	"2"	"3"	"4"	"5"
0 (0/15)	15 pers.	-	-	-	-	-

3. This item shows that non-expression of the medial accusative case in nominal coordinate structures is obligatory.

a. 영수가 책과 신문을 읽는다.

Yengswu-ka   *chayk-kwa*   *sinmwun-ul*   *ilk-nunta*

Yeongsoo-NOM   book-CONN   newspaper-ACC   read-DECL.PLAIN

average index \ grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
4,93 (74/15)	-	-	-	-	1 pers.	14 pers.

b. 영수가 책을과 신문을 읽는다.

Yengswu-ka   *chayk-ul-kwa*   *sinmwun-ul*   *ilk-nunta*

Yeongsoo-NOM   book-ACC-CONN   newspaper-ACC   read-DECL.PLAIN

average index \ grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
0,07 (1/15)	14 pers.	1 pers.	-	-	-	-

4. This item shows that overt-marking of the non-final conjunct with the plural suffix is allowed.

(교수 5명, 학생 30명 경우에) (5 professors, 30 students)

a. 연세대 교수들과 학생들이 일본을 방문했다.

    yensey.tay   *kyoswu-tul-kwa*   *haksayng-tul-i*

Yonsei.university   professor-PL-CONN   student-PL-NOM

    ilpon-ul   *pangmwunhay-ss-ta*

Japan-ACC   visit-PAST-DECL.PLAIN

b. 연세대 교수들이와 학생들이 일본을 방문했다.

    yensey.tay   *kyoswu-tul-i-wa*   *haksayng-tul-i*

Yonsei.university   professor-PL-NOM-CONN   student-PL-NOM

    ilpon-ul   *pangmwunhay-ss-ta*

Japan-ACC   visit-PAST-DECL.PLAIN

average index \ grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
4,93 (74/15)	-	-	-	-	1 pers.	14 pers.

average index \ grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
0 (0/15)	15 pers.	-	-	-	-	-

5. This item shows that the medial plural suffix is optional (cf. 5a and 4a) and cannot violate the head-final principle of OAH (5b).

 (교수 5명, 학생 30명 경우에) (5 professors, 30 students)

a. 연세대 교수와 학생들이 일본을 방문했다.

   *yensey.tay   kyoswu-wa   haksayng-**tul**-i*

Yonsei.university professor-CONN   student-PL-NOM

   ilpon-ul   pangmwunhay-ss-ta

Japan-ACC   visit-PAST-DECL.PLAIN

average index / grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
3,4 (51/15)	-	2 pers.	2 pers.	3 pers.	4 pers.	4 pers.

b. 연세대 교수들과 학생이 일본을 방문했다.

   *yensey.tay   kyoswu-**tul**-kwa   haksayng-i*

Yonsei.university   professor-PL-NOM-CONN student-NOM

   ilpon-ul   pangmwunhay-ss-ta

Japan-ACC   visit-PAST-DECL.PLAIN

average index / grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
1,53 (23/15)	5 pers.	5 pers.	1 pers.	1 pers.	2 pers.	1 pers.

6. This item shows that medial casing is more natural in the distributive (6a) and very odd in the collective (6b) reading.

a. 그아이가 아버지**에게서**와 어머니**에게서** 선물을
   하나**씩** 받았다.

   *ku.ai-ka   apeci-**eykeyse**-wa emeni-**eykeyse** senmwul-ul*

that.child-NOM   father-ABL-CONN mother-ABL   gift-ACC

 *hana-**ssik**   pat-ass-ta*

 one-**apiece** get-PAST-DECL.PLAIN

average index / grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
3,67 (55/15)	1 pers.	-	1 pers.	4 pers.	4 pers.	5 pers.

b. 그아이가 아버지**에게서**와 어머니**에게서** 선물을
   하나**만** 받았다.

   *ku.ai-ka   apeci-**eykeyse**-wa emeni-**eykeyse** senmwul-ul*

that.child-NOM   father-ABL-CONN   mother-ABL   gift-ACC

 *hana-**man** pat-ass-ta*

 one-**only**   get-PAST-DECL.PLAIN

average index / grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
1,67 (25/15)	5 pers.	3 pers.	2 pers.	2 pers.	3 pers.	-

7. This item shows that medial casing does not encode expanding focus.

a. 그아이가 아버지**에게서**와 어머니**에게서** 선물을 받았다.

    ku.ai-ka   *apeci-**eykeyse**-wa*   *emeni-**eykeyse***

that-child-NOM   father-**ABL**-CONN   mother-**ABL**

    senmwul-ul   *pat-ass-ta*

    present-ACC   get-PAST-DECL. PLAIN

b. 그아이가 아버지**에게서**와 어머니**에게서도** 선물을 받았다.

    ku.ai-ka   *apeci-**eykeyse**-wa*   *emeni-**eykeyse-to***

that.child-NOM   father-**ABL**-CONN   mother-**ABL-also**

    senmwul-ul   *pat-ass-ta*

    present-ACC   get-PAST-DECL. PLAIN

average index \ grade	"0"	"1"	"2"	"3"	"4"	"5"
3,67 (55/15)	-	2 pers.	1 pers.	3 pers.	3 pers.	6 pers.

average index \ grade	"0"	"1"	"2"	"3"	"4"	"5"
2,53 (38/15)	3 pers.	3 pers.	1 pers.	1 pers.	5 pers.	2 pers.

8. This item shows that medial casing cannot violate the head-final principle of OAH.

a. 그아이가 아버지와 어머니**에게서** 선물을 받았다.

    ku.ai-ka   *apeci-wa*   *emeni-**eykeyse***

that-child-NOM   father-CONN   mother-**ABL**

    senmwul-ul   *pat-ass-ta*

    present-ACC   get-PAST-DECL. PLAIN

b. 그아이가 아버지**에게서**와 어머니 선물을 받았다.

    ku.ai-ka   *apeci-**eykeyse**-wa*   *emeni*

that.child-NOM   father-**ABL**-CONN   mother

    senmwul-ul   *pat-ass-ta*

    present-ACC   get-PAST-DECL. PLAIN

average index \ grade	"0"	"1"	"2"	"3"	"4"	"5"
4,93 (74/15)	-	-	-	-	1 pers.	14 pers.

average index \ grade	"0"	"1"	"2"	"3"	"4"	"5"
0,07 (1/15)	14 pers.	1 pers.	-	-	-	-

9. This item shows that the medial ablative case-marker is grammatical (9a) and optional (9b).

a. 그아이가 아버지**에게서**와 어머니**에게서** 선물을 받았다.

   ku.ai-ka   *apeci-**eykeyse**-wa*   *emeni-**eykeyse***

   that.child-NOM   father-**ABL**-CONN   mother-**ABL**

   senmwul-ul   *pat-ass-ta*

   present-ACC   get-PAST-DECL. PLAIN

b. 그아이가 아버지와 어머니**에게서** 선물을 받았다.

   ku.ai-ka   *apeci-wa*   *emeni-**eykeyse***

   that.child-NOM   father-CONN   mother-**ABL**

   senmwul-ul   *pat-ass-ta*

   present-ACC   get-PAST-DECL. PLAIN

average index \ grade	"0"	"1"	"2"	"3"	"4"	"5"
3,27 (49/15)	1 pers.	1 pers.	-	5 pers.	7 pers.	1 pers.

average index \ grade	"0"	"1"	"2"	"3"	"4"	"5"
4,87 (73/15)	-	-	-	-	2 pers.	13 pers.

10. This item shows that the medial dative case-marker is moderately grammatical and cannot violate the head-final principle of OAH.

a. 그아이가 아버지**에게**와 어머니**에게** 선물을 주었다.

   ku.ai-ka   *apeci-**eykey**-wa*   *emeni-**eykey***   *senmwul-ul*

   that.child-NOM   father-**DAT**-CONN   mother-**DAT**   present-ACC

   cwu-ess-ta

   give-PAST-DECL. PLAIN

b. 그아이가 아버지**에게**와 어머니 선물을 주었다.

   ku.ai-ka   *apeci-**eykey**-wa*   *emeni*   *senmwul-ul*

   that.child-NOM   father-**DAT**-CONN   mother   present-ACC

   cwu-ess-ta

   give-PAST-DECL. PLAIN

average index \ grade	"0"	"1"	"2"	"3"	"4"	"5"
2,27 (34/15)	1 pers.	6 pers.	2 pers.	2 pers.	2 pers.	2 pers.

average index \ grade	"0"	"1"	"2"	"3"	"4"	"5"
0,07 (1/15)	14 pers.	1 pers.	-	-	-	-

11. This item shows that the medial dative case-marker is optional.

a. 그아이가 아버지**에게**와 어머니**에게** 선물을 주었다.

    *ku.ai-ka   apeci-**eykey**-wa   emeni-**eykey**   senmwul-ul*

that.child-NOM   father-**DAT**-CONN   mother-**DAT**   present-ACC

    cwu-ess-ta

give-PAST-DECL. PLAIN

average index \ grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
2,2 (33/15)	3 pers.	2 pers.	4 pers.	1 pers.	5 pers.	-

b. 그아이가 아버지와 어머니**에게** 선물을 주었다.

    *ku.ai-ka   apeci-wa   emeni-**eykey**   senmwul-ul*

that.child-NOM   father-CONN   mother-**DAT**   present-ACC

    cwu-ess-ta

give-PAST-DECL. PLAIN

average index \ grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
4,87 (73/15)	-	-	-	1 pers.	-	14 pers.

12. This item shows that non-expression of the medial nominative case-marker in nominal coordinate structures is obligatory.

a. 이방에 의자**가**와 책상**이** 많아요.

    *i.pang-ey   uyca-**ka**-wa   chayksang-**i**   manh-ayo*

this.room-LOC   chair-**NOM**-CONN   desk-**NOM**   many-DECL.POL

average index \ grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
0 (0/15)	15 pers.	-	-	-	-	-

b. 이방에 의자와 책상**이** 많아요.

    *i.pang-ey   uyca-wa   chayksang-**i**   manh-ayo*

this.room-LOC   chair-CONN   desk-**NOM**   many-DECL.POL

average index \ grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
4,93 (74/15)	-	-	-	-	1 pers.	14 pers.

13. This item shows that the medial goal case-marker is ungrammatical.

a. 영수가 화분과 정원에 모두 물을 줬다.

*Yengswu-ka   hwapwun-kwa   cengwen-**ey***

Yengsoo-NOM   flowerpot-CONN   garden-GOAL

motwu   mwul-ul   cwu-ess-ta

all   water-ACC   give-PAST-DECL.PLAIN

b. 영수가 화분에와 정원에 모두 물을 줬다.

*Yengswu-ka   hwapwun-**ey**-wa   cengwen-**ey***

Yengsoo-NOM   flowerpot-**GOAL**-CONN   garden-**GOAL**

motwu   mwul-ul   cwu-ess-ta

all   water-ACC   give-PAST-DECL.PLAIN

average index / grade	"0"	"1"	"2"	"3"	"4"	"5"
4,73 (71/15)	-	-	-	1 pers.	2 pers.	12 pers.

average index / grade	"0"	"1"	"2"	"3"	"4"	"5"
1 (15/15)	8 pers.	2 pers.	2 pers.	3 pers.	-	-

14. This item shows that the medial locative case-marker is moderately grammatical (14b) and optional (14a).

a. 영수가 서울과 런던에서 공부했다.

*Yengswu-ka   sewul-kwa   lenten-**eyse***

Yengsoo-NOM   Seoul-CONN   London-LOC

kongpwuhay-ess-ta

study-PAST-DECL.PLAIN

b. 영수가 서울에서와 런던에서 공부했다.

*Yengswu-ka   sewul-**eyse**-wa   lenten-**eyse***

Yengsoo-NOM   Seoul-**LOC**-CONN   London-**LOC**

kongpwuhay-ess-ta

study-PAST-DECL.PLAIN

average index / grade	"0"	"1"	"2"	"3"	"4"	"5"
5 (75/15)	-	-	-	-	-	15 pers.

average index / grade	"0"	"1"	"2"	"3"	"4"	"5"
1,87 (28/15)	4 pers.	2 pers.	4 pers.	2 pers.	3 pers.	-

15. This item shows that the medial instrumental case-marker is ungrammatical.

a. 영수가 손과 컴퓨터**로** 글을 쓰는데 모두 익숙하다.

*Yengswu-ka   son-kwa   khemphyuthe-**lo***

Yengsoo-NOM   hand-CONN   computer-**INS**

kul-ul   ssu-nuntey   motwu   ikswukha-ta

letter-ACC   write-CVB   all   familiar-DECL.PLAIN

b. 영수가 손**으로**와 컴퓨터**로** 글을 쓰는데 모두 익숙하다.

*Yengswu-ka   son-**ulo**-wa   khemphyuthe-**lo***

Yengsoo-NOM   hand-**INS**-CONN   computer-**INS**

kul-ul   ssu-nuntey   motwu   ikswukha-ta

letter-ACC   write-CVB   all   familiar-DECL.PLAIN

average index / grade	"0"	"1"	"2"	"3"	"4"	"5"
4,53 (68/15)	-	1 pers.	-	1 pers.	1 pers.	12 pers.

average index / grade	"0"	"1"	"2"	"3"	"4"	"5"
1,2 (18/15)	9 pers.	1 pers.	1 pers.	2 pers.	1 pers.	1 pers.

16. This item shows that the medial ablative case-marker is more grammatical than the medial locative case-marker.

a. 영수가 서울**에서**와 런던**에서** 공부했다.

*Yengswu-ka   sewul-**eyse**-wa   lenten-**eyse***

Yengsoo-NOM   Seoul-**LOC**-CONN   London-**LOC**

kongpwuhay-ess-ta

study-PAST-DECL.PLAIN

b. 그아이가 아버지**에게서**와 어머니**에게서** 선물을 받았다.

*ku.ai-ka   apeci-**eykeyse**-wa   emeni-**eykeyse***

that-child-NOM   father-**ABL**-CONN   mother-**ABL**

senmwul-ul   pat-ass-ta

present-ACC   get-PAST-DECL. PLAIN

average index / grade	"0"	"1"	"2"	"3"	"4"	"5"
2,53 (38/15)	-	5 pers.	2 pers.	4 pers.	3 pers.	1 pers.

average index / grade	"0"	"1"	"2"	"3"	"4"	"5"
3,2 (48/15)	1 pers.	-	3 pers.	5 pers.	3 pers.	3 pers.

17. This item shows that the medial dative case-marker is more grammatical than the medial goal case-marker.

a. 영수가 화분에와 정원에 모두 물을 줬다.

Yengswu-ka   *hwapwun-**ey**-wa*   *cengwen-**ey***

Yengsoo-NOM   flowerpot-**GOAL**-CONN   garden-**GOAL**

motwu   mwul-ul   cwu-ess-ta

 all   water-ACC   give-PAST-DECL.PLAIN

b. 그아이가 아버지**에게**와 어머니**에게** 선물을 주었다.

ku.ai-ka   *apeci-**eykey**-wa*   *emeni-**eykey***

that.child-NOM   father-**DAT**-CONN   mother-**DAT**

senmwul-ul   cwu-ess-ta

present-ACC   give-PAST-DECL.PLAIN

average index \ grade	"0"	"1"	"2"	"3"	"4"	"5"
1,53 (23/15)	5 pers.	3 pers.	2 pers.	4 pers.	1 pers.	-

average index \ grade	"0"	"1"	"2"	"3"	"4"	"5"
2,2 (33/15)	1 pers.	6 pers.	-	5 pers.	3 pers.	-

18. This item shows that the medial ablative case-marker is more grammatical than the medial dative case-marker.

a. 그아이가 아버지**에게서**와 어머니**에게서** 선물을 받았다.

ku.ai-ka   *apeci-**eykeyse**-wa*   *emeni-**eykeyse***

that.child-NOM   father-**ABL**-CONN   mother-**ABL**

senmwul-ul   pat-ass-ta

present-ACC   get-PAST-DECL. PLAIN

b. 그아이가 아버지**에게**와 어머니**에게** 선물을 주었다.

ku.ai-ka   *apeci-**eykey**-wa*   *emeni-**eykey***

that.child-NOM   father-**DAT**-CONN   mother-**DAT**

senmwul-ul   cwu-ess-ta

present-ACC   give-PAST-DECL.PLAIN

average index \ grade	"0"	"1"	"2"	"3"	"4"	"5"
3,53 (53/15)	1 pers.	-	1 pers.	5 pers.	4 pers.	4 pers.

average index \ grade	"0"	"1"	"2"	"3"	"4"	"5"
2,33 (35/15)	1 pers.	5 pers.	3 pers.	1 pers.	4 pers.	1 pers.

19. This item shows that the medial plural marker is more grammatical than the medial ablative case-marker.

a. 연세대 교수**들**과 학생**들**이 일본을 방문했다.

    *yensey.tay   kyoswu-**tul**-kwa   haksayng-**tul**-i*

Yonsei.university professor-**PL**-CONN   student-**PL**-NOM

    ilpon-ul   pangmwunhay-ss-ta

Japan-ACC   visit-PAST-DECL.PLAIN

b. 그아이가 아버지**에게서**와 어머니**에게서** 선물을 받았다.

    *ku.ai-ka   apeci-**eykeyse**-wa   emeni-**eykeyse***

that.child-NOM   father-**ABL**-CONN   mother-**ABL**

    senmwul-ul   pat-ass-ta

present-ACC get-PAST-DECL.PLAIN

grade / average index	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
5 (75/15)	-	-	-	-	-	15 pers.

grade / average index	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
3,13 (47/15)	-	2 pers.	-	7 pers.	6 pers.	-

20. This item shows that the locative case-marker is more grammatical than the medial dative case-marker.

a. 그아이가 아버지**에게**와 어머니**에게** 선물을 주었다.

    *ku.ai-ka apeci-**eykey**-wa emeni-**eykey** senmwul-ul*

that.child-NOM father-**DAT**-CONN mother-**DAT**   present-ACC

    cwu-ess-ta

give-PAST-DECL. PLAIN

b. 영수가 서울**에서**와 런던**에서** 공부했다.

    *Yengswu-ka sewul-**eyse**-wa lenten-**eyse***

Yengsoo-NOM Seoul-**LOC**-CONN London-**LOC**

    kongpwuhay-ess-ta

study-PAST-DECL.PLAIN

grade / average index	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
2,47 (37/15)	1 pers.	4 pers.	3 pers.	2 pers.	4 pers.	1 pers.

grade / average index	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
2,53 (38/15)	1 pers.	2 pers.	3 pers.	7 pers.	1 pers.	1 pers.

21. This item shows that the goal case-marker is more grammatical than the medial instrumental case-marker.

a. 영수가 화분**에**와 정원**에** 모두 물을 줬다.

  Yengswu-ka   *hwapwun-**ey**-wa*   *cengwen-**ey***

Yengsoo-NOM   flowerpot-**GOAL**-CONN   garden-**GOAL**

motwu   *mwul-ul*   *cwu-ess-ta*

  all   water-ACC   give-PAST-DECL.PLAIN

b. 영수가 손**으로**와 컴퓨터**로** 글을 쓰는 데 모두 익숙하다.

  Yengswu-ka   *son-**ulo**-wa*   *khemphyuthe-**lo***

  Yengsoo-NOM   hand-**INS**-CONN   computer-**INS**

  kul-ul   *ssu-nuntey*   *motwu*   *ikswukha-ta*

  letter-ACC   write-CVB   all   familiar-DECL.PLAIN

average index grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
2,33 (35/15)	1 pers.	3 pers.	5 pers.	3 pers.	2 pers.	1 pers.

average index grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
0,6 (9/15)	11 pers.	2 pers.	-	1 pers.	1 pers.	-

22. This item shows that the medial locative case-marker is more grammatical than the medial goal case-marker.

a. 영수가 서울**에서**와 런던**에서** 공부했다.

  Yengswu-ka   *sewul-**eyse**-wa*   *lenten-**eyse***

Yengsoo-NOM   Seoul-**LOC**-CONN   London-**LOC**

  kongpwuhay-ess-ta

    study-PAST-DECL.PLAIN

b. 영수가 화분**에**와 정원**에** 모두 물을 줬다.

  Yengswu-ka   *hwapwun-**ey**-wa*   *cengwen-**ey***

  Yengsoo-NOM   flowerpot-**GOAL**-CONN   garden-**GOAL**

  motwu   *mwul-ul*   *cwu-ess-ta*

  all   water-ACC   give-PAST-DECL.PLAIN

average index grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
2,53 (38/15)	-	5 pers.	2 pers.	4 pers.	3 pers.	1 pers.

average index grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
1,8 (27/15)	5 pers.	1 pers.	4 pers.	3 pers.	1 pers.	1 pers.

23. This item shows that the medial genitive case-marker is ungrammatical (i.e. obligatory non-expression).

a. 그사람은 영호의와 민호의 삼촌입니다.

*ku.salam-un   Yengho-**uy**-wa Minho-**uy**   samchon-i-pnita*

that.man-TOP Yengho-GEN-CONN Minho-GEN uncle-COP-DECL.FORM

b. 그사람은 영호와 민호의 삼촌입니다.

*ku.salam-un Yengho-wa Minho-**uy** samchon-i-pnita.*

that.man-TOP Yengho-CONN Minho-GEN uncle-COP-DECL.FORM

average index \ grade	"0"	"1"	"2"	"3"	"4"	"5"
0 (0/15)	15 pers.	-	-	-	-	-

average index \ grade	"0"	"1"	"2"	"3"	"4"	"5"
5 (75/15)	-	-	-	-	-	15 pers.

24. This item shows that the vocative case-marker can be attached only to the final nominal conjunct.

a. 영호야와 민호야! 집에 어서들 돌아오너라!

*Yengho-**ya**-wa   Minho-**ya**   cip-ey   ese-tul*

Yongho-VOC-CONN Minho-VOC home-GOAL quickly-PL

tolao-nera

return-IMPER.PLAIN

b. 영호와 민호야! 집에 어서들 돌아오너라!

*Yengho-wa   Minho-**ya**   cip-ey   ese-tul*

Yongho-CONN Minho-VOC home-GOAL quickly-PL

tolao-nera

return-IMPER.PLAIN

average index \ grade	"0"	"1"	"2"	"3"	"4"	"5"
0,07 (1/15)	14 pers.	1 pers.	-	-	-	-

average index \ grade	"0"	"1"	"2"	"3"	"4"	"5"
4,13 (62/15)	-	2 pers.	1 pers.	-	2 pers.	10 pers.

25. This item shows that animacy does not prevent obligatory non-expression of the medial accusative case-marker.

a. 영호와 민호를 학교에서 봤다.

  *Yengho-kwa   Minho-**lul**   hakkyo-eyse   pwa-ss-ta*

Yongho-CONN Minho-**ACC** school-LOC see-PAST-DECL.PLAIN

average index \ grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
5 (75/15)	-	-	-	-	-	15 pers.

b. 영호를과 민호를 학교에서 봤다.

  *Yengho-**lul**-kwa   Minho-**lul**   hakkyo-eyse   pwa-ss-ta*

Yongho-**ACC**-CONN Minho-**ACC** school-LOC see-PAST-DECL.PLAIN

average index \ grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
0,13 (2/15)	14 pers.	-	1 pers.	-	-	-

26. This item shows that accidental coordination does not prevent obligatory non-expression of the medial nominative case-marker.

a. 영호의 아버지와 삼촌이 집에 돌아가 있다.

  *Yengho-uy   apeci-wa   samchon-**i**   cip-ey*

Yongho-GEN father-CONN uncle-**NOM** home-GOAL

  tolaka   iss-ta

  return be-DECL.PLAIN

average index \ grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
4,93 (74/15)	-	-	-	-	1 pers.	14 pers.

b. 영호의 아버지가와 삼촌이 집에 돌아가 있다.

  *Yengho-uy   apeci-**ka**-wa   samchon-**i**   cip-ey*

Yongho-GEN father-**NOM**-CONN uncle-**NOM** home-GOAL

  tolaka   iss-ta

  return be-DECL.PLAIN

average index \ grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
0 (0/15)	15 pers.	-	-	-	-	-

27. This item shows that overspecification with the medial plural marker does not encode expanding focus.

a. 남자들과 여자들은 여기 화장실 공동으로 사용해요.

*namca-**tul**-kwa*   *yeca-**tul**-un*   *yeki*   *hwacangsil*

man-PL-CONN   woman-PL-TOP here   toilet

kongtong-ulo   *sayonghay-yo*

joint-ADV   use-DECL.POL

b. 남자들과 여자들도 여기 화장실 공동으로 사용해요.

namca-tul-kwa   *yeca-**tul-to***   *yeki*   *hwacangsil*

man-PL-CONN   woman-PL-**also** here   toilet

kongtong-ulo   *sayonghay-yo*

joint-ADV   use-DECL.POL

average index \ grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
4,67 (70/15)	-	-	-	1 pers.	3 pers.	11 pers.

average index \ grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
3,27 (49/15)	2 pers.	2 pers.	-	1 pers.	6 pers.	4 pers.

28. This item shows that the medial plural marker encodes focalization (wh-test in 28b) of the distributive type (28a).

a. 남자들과 여자들은 여기 화장실 별도로 사용해요.

*namca-**tul**-kwa*   *yeca-**tul**-un*   *yeki*   *hwacangsil*

man-PL-CONN   woman-PL-TOP here   toilet

peyltolo   *sayonghay-yo*

separately   use-DECL.POL

b. 남자들과 누구들은 여기 화장실 별도로 사용해요?

*namca-**tul**-kwa*   *nwukwu-**tul**-un*   *yeki*   *hwacangsil*

man-PL-CONN   who-PL-TOP here   toilet

peyltolo   *sayonghay-yo*

separately   use-QU.POL

average index \ grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
4,33 (65/15)	-	1 pers.	-	1 pers.	4 pers.	9 pers.

average index \ grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
0,6 (9/15)	10 pers.	2 pers.	2 pers.	1 pers.	-	-

29. This item shows that phonological alternations in the root cannot prevent obligatory non-expression of the medial nominative case.

a. 너와 내**가** 아니면 그일을 누가 끝 마칠 수 있겠니?

  *ne-wa   nay-**ka**   an-i-myen   ku.il-ul   nwuka*

you-CONN **I-NOM** NEG-COP-if that.job-ACC who

  kkuth.machi-l swu   iss-kess-ni

end.finish-MOD mean   be-FUT-QU.PLAIN

average index grade	"0"	"1"	"2"	"3"	"4"	"5"
5 (75/15)	-	-	-	-	-	15 pers.

b. 네**가**와 내**가** 아니면 그일을 누가 끝 마칠 수 있겠니?

  *ney-**ka**-wa   nay-**ka** an-i-myen   ku.il-ul   nwuka*

you-**NOM**-CONN **I-NOM** NEG-COP-if that.job-ACC who

  kkuth.machi-l swu   iss-kess-ni

end.finish-MOD mean   be-FUT-QU.PLAIN

average index grade	"0"	"1"	"2"	"3"	"4"	"5"
0 (0/15)	15 pers.	-	-	-	-	-

30. This item shows that the passive voice suffixes allow no optionality and cannot be removed from the medial verb.

a. 문이 바람에 계속해서 열**리**고 닫**히**었다.

  mwun-i   palam-ey   kyeysokhayse

door-NOM wind-DAT   continuously

  *yel-**li**-ko   tat-**hi**-ess-ta*

open-**PASS**-CVB close-**PASS**-PAST-DECL.PLAIN

average index grade	"0"	"1"	"2"	"3"	"4"	"5"
4,93 (74/15)	-	-	-	-	1 pers.	14 pers.

b. 문이 바람에 계속해서 열고 닫**히**었다.

  mwun-i   palam-ey   kyeysokhayse

door-NOM wind-DAT   continuously

  *yel-ko   tat-**hi**-ess-ta*

open-CVB close-**PASS**-PAST-DECL.PLAIN

average index grade	"0"	"1"	"2"	"3"	"4"	"5"
0,13 (2/15)	13 pers.	2 pers.	-	-	-	-

31. This item shows that the causative voice suffixes allow no optionality and cannot be removed from the medial verb.

a. 어머니가 자식들에게 밥도 먹**이**고 우유도 먹**이**었다.

   emeni-ka   *casik-tul-eykey*

mother-NOM   child-PL-DAT

pap-to   *mek-**i**-ko*   *wuyu-to*   *mek-**i**-ess-ta*

rice-also eat-**CAUS**-CVB milk-also eat-**CAUS**-PAST-DECL.PLAIN

average index \\ grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
5 (75/15)	-	-	-	-	-	15 pers.

b. 어머니가 자식들에게 밥도 먹고 우유도 먹**이**었다.

   emeni-ka   *casik-tul-eykey*

mother-NOM   child-PL-DAT

pap-to *mek-ko* *wuyu-to* *mek-**i**-ess-ta*

rice-also eat-CVB milk-also eat-**CAUS**-PAST-DECL.PLAIN

average index \\ grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
0,07 (1/15)	14 pers.	1 pers.	-	-	-	-

32. This item shows that the subject honorific suffix (SH) cannot be used with 1st person subjects.

a. 나는 그책을 벌써 읽었다.

na-nun *ku.chayk-ul* *pelsse* *ilk-ess-ta*

I-TOP that.book-ACC already read-PAST-DECL.PLAIN

average index \\ grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
5 (75/15)	-	-	-	-	-	15 pers.

b. 나는 그책을 벌써 읽**으시**었다.

na-nun *ku.chayk-ul* *pelsse* *ilk-**usi**-ess-ta*

I-TOP that.book-ACC already read-**SH**-PAST-DECL.PLAIN

average index \\ grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
0,47 (7/15)	11 pers.	2 pers.	1 pers.	1 pers.	-	-

33. This item shows that Korean distinguishes between '*and*'-structures and '*with*'-structures (no SH in '*and*'-structures, 33b).

a. 할아버지는 손자**와** 같이 극장에 가**시**었습니다.

halapoci-nun   *sonca-**wa***   *kathi*   *kukcang-ey*

grandfather-TOP   grandson-**COM** together theatre-GOAL

*ka-**si**-ess-supnita*

go-**SH**-PAST-DECL.FORM

average index / grade	"0"	"1"	"2"	"3"	"4"	"5"
5 (75/15)	-	-	-	-	-	15 pers.

b. 할아버지**와** 손자는 극장에 가**시**었습니다.

*halapoci-**wa***   *sonca-nun*   *kukcang-ey*

grandfather-**CONN** grandson-TOP   theatre- GOAL

*ka-**si**-ess-supnita*

go-**SH**-PAST-DECL.FORM

average index / grade	"0"	"1"	"2"	"3"	"4"	"5"
0,73 (11/15)	9 pers.	3 pers.	1 pers.	2 pers.	-	-

34. This item shows that the perfect aspect marker can surface in coordinate non-final clauses and should be omitted in subordinate ones.

a. 이제 겨울이 다 **갔**고 봄이 왔다.

icey   *kyewul-i*   *ta*   *ka-**ss**-ko*

now winter-NOM all go-**PRF**-CVB

pom-i   *wa-**ss**-ta*

spring-NOM come-**PERF**-DECL.PLAIN

average index / grade	"0"	"1"	"2"	"3"	"4"	"5"
4,8 (72/15)	-	-	-	1 pers.	1 pers.	13 pers.

b. 이제 겨울이 다 **갔**고서 봄이 왔다.

icey   *kyewul-i*   *ta*   *ka-**ss**-ko-se*

now winter-NOM all go-**PRF**-CVB-EMP

pom-i   *wa-**ss**-ta*

spring-NOM come-**PRF**-DECL.PLAIN

average index / grade	"0"	"1"	"2"	"3"	"4"	"5"
0,07 (1/15)	14 pers.	1 pers.	-	-	-	-

35. This item shows that the past tense marker can surface in coordinate non-final clauses and should be omitted in subordinate ones.

a. 철수는 떠났고서 영희도 떠났다.

*Chelswu-nun   ttena-**ss**-ko-se   Yenghui-to   ttena-**ss**-ta*

Chelswu-TOP leave-**PAST**-CVB-EMP Yenghui-also leave-**PAST**-DECL.PLAIN

b. 철수는 떠났고 영희도 떠났다.

*Chelswu-nun ttena-**ss**-ko Yenghui-to ttena-**ss**-ta*

Chelswu-TOP leave-**PAST**-CVB Yenghui-also leave-**PAST**-DECL.PLAIN

average index	grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
0,33 (5/15)		14 pers.	-	-	-	-	1 pers.

average index	grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
4,47 (67/15)		1 pers.	-	-	1 pers.	1 pers.	12 pers.

36. This item shows that the medial past tense marker can surface in any semantically symmetric clauses (different subjects and objects).

a. 나는 학생시절에 김선생님을 제일 싫어했으면서
   다른 학생들은 최선생님을 싫어했다.

*na-nun haksayng.sicel-ey Kim.sensayng-nim-ul ceil silhehay-**ss**-umyense*

I-TOP school.time-DAT Kim.teacher-HT-ACC most dislike-**PAST**-SIM

*talun haksayng-tul-un Choy.sensayng-nim-ul silhehay-**ss**-ta*

other pupil-PL-TOP Choi.teacher-HT-ACC dislike-**PAST**-DECL.PLAIN

b. 나는 학생시절에 김선생님을 제일 싫어했고
   다른 학생들은 최선생님을 싫어했다.

*na-nun haksayng.sicel-ey Kim.sensayng-nim-ul ceil silhehay-**ss**-ko*

I-TOP school.time-DAT Kim.teacher-HT-ACC most dislike-**PAST**-CVB

*talun haksayng-tul-un Choy.sensayng-nim-ul silhehay-**ss**-ta*

other pupil-PL-TOP Choi.teacher-HT-ACC dislike-**PAST**-DECL.PLAIN

average index	grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
0,13 (2/15)		13 pers.	2 pers.	-	-	-	-

average index	grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
5 (75/15)		-	-	-	-	-	15 pers.

37. This item shows that the medial past tense marker can surface in any semantically symmetric clauses (different subjects, same object).

a. 나는 학생시절에 김선생님을 싫어**했**으면서

　　다른 학생들은 좋아**했**습니다.

*na-nun haksayng.sicel-ey Kim.sensayng-nim-ul silhehay-**ss**-umyense*

　I-TOP　school.time-DAT　Kim.teacher-HT-ACC　dislike-**PAST**-SIM

*talun　haksayng-tul-un　cohahay-**ss**-supnita*

other　　pupil-PL-TOP　　　like-**PAST**-DECL.FORM

average index ＼ grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
0,67 (10/15)	12 pers.	1 pers.	-	-	1 pers.	1 pers.

b. 나는 학생시절에 김선생님을 싫어**했**고

　　다른 학생들은 좋아**했**습니다.

*na-nun haksayng.sicel-ey Kim.sensayng-nim-ul silhehay-**ss**-ko*

　I-TOP　school.time-DAT　Kim.teacher-HT-ACC　dislike-**PAST**-CVB

　　　*talun　haksayng-tul-un　cohahay-**ss**-supnita*

　　　other　　pupil-PL-TOP　　　like-**PAST**-DECL.FORM

average index ＼ grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
4,33 (65/15)	-	1 pers.	1 pers.	1 pers.	1 pers.	11 pers.

38. This item shows that the medial past tense marker can surface in any semantically symmetric clauses (same subject, different objects).

a. 나는 학생시절에 김선생님을 싫어**했**으면서

　　최선생님을 좋아**했**습니다.

*na-nun haksayng.sicel-ey Kim.sensayng-nim-ul silhehay-**ss**-umyense*

　I-TOP　school.time-DAT　Kim.teacher-HT-ACC　dislike-**PAST**-SIM

*Choy.sensayng-nim-ul　cohahay-**ss**-supnita*

Choi.teacher-HT-ACC　　like-**PAST**-DECL.FORM

average index ＼ grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
2,13 (32/15)	5 pers.	1 pers.	1 pers.	3 pers.	5 pers.	-

b. 나는 학생시절에 김선생님을 싫어**했**고

　　최선생님을 좋아**했**습니다.

*na-nun haksayng.sicel-ey Kim.sensayng-nim-ul silhehay-**ss**-ko*

　I-TOP　school.time-DAT　Kim.teacher-HT-ACC　dislike-**PAST**-CVB

*Choy.sensayng-nim-ul　cohahay-**ss**-supnita*

Choi.teacher-HT-ACC　　like-**PAST**-DECL.FORM

average index ＼ grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
4,93 (74/15)	-	-	-	-	1 pers.	14 pers.

39. This item shows that the medial past tense marker can surface in any semantically symmetric clauses (same subject, same object).

a. 나는 학생시절에 최선생님을 존경했으면서 좋아했습니다.

na-nun   haksayng.sicel-ey Choy.sensayng-nim-ul

I-TOP   school.time-DAT   Choi.teacher-HT-ACC

*conkyenghay-**ss**-umyense   cohahay-**ss**-supnita*

respect-**PAST**-SIM   like-**PAST**-DECL.FORM

b. 나는 학생시절에 최선생님을 존경했고 좋아했습니다.

na-nun   haksayng.sicel-ey Choy.sensayng-nim-ul

I-TOP   school.time-DAT   Choi.teacher-HT-ACC

*conkyenghay-**ss**-ko   cohahay-**ss**-supnita*

respect-**PAST**-CVB   like-**PAST**-DECL. FORM

average index / grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
2,27 (34/15)	3 pers.	4 pers.	-	2 pers.	6 pers.	-

average index / grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
5 (75/15)	-	-	-	-	-	15 pers.

40. This item shows that medial tensing demonstrates a slight tendency towards focalization (wh-test in 40b) of the contrastive type (40a).

a. 나는 학생시절에 김선생님을 좋아했고

　　최선생님을 싫어했습니다.

*na-nun haksayng.sicel-ey Kim.sensayng-nim-ul   cohahay-**ss**-ko*

I-TOP school.time-DAT Kim.teacher-HT-ACC   like-**PAST**-CVB

*Choy.sensayng-nim-ul   silhehay-**ss**-supnita*

Choi.teacher-HT-ACC   dislike-**PAST**-DECL.FORM

b. 학생시절에 누가 김선생님을 좋아했고

　　최선생님을 싫어했습니까?

*haksayng.sicel-ey nwuka Kim.sensayng-nim-ul cohahay-**ss**-ko*

school.time-DAT   who   Kim.teacher-HT-ACC   like-**PAST**-CVB

*Choy.sensayng-nim-ul   silhehay-**ss**-supnikka*

Choi.teacher-HT-ACC   dislike-**PAST**-QU.FORM

average index / grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
4,6 (69/15)	-	1 pers.	-	1 pers.	-	13 pers.

average index / grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
3,4 (51/15)	1 pers.	-	2 pers.	3 pers.	7 pers.	2 pers.

41. This item shows that suffix *-keyss* (-겠) cannot occupy two slots (tense and modality) at the same time.

a. 나는 내년에 미국에 유학하러 가**겠**다.   b. 나는 내년에 미국에 유학하러 가**겠겠**다.

na-nun naynyen-ey   *mikwuk-ey*   *yuhakha-le*   *ka-**keyss**-ta*   *na-nun naynyen-ey mikwuk-ey*   *yuhakha-le ka-**keyss-keyss**-ta*

I-TOP next year-DAT America-DAT study abroad-CVB go-**SUF**-DECL.PLAIN   I-TOP next year-DAT America-DAT study abroad-CVB go-**SUF-SUF**-DECL.PLAIN

average index \ grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
4,87 (73/15)	-	-	-	-	2 pers.	13 pers.

average index \ grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
0,07 (1/15)	14 pers.	1 pers.	-	-	-	-

42. This item shows that suffix *-keyss* (-겠), denoting presumption, can surface in non-final coordinate clauses.

a. 내일 전라남도에는 비가 오는 곳이 있겠으면서   b. 내일 전라남도에는 비가 오는 곳이 있겠고

     강원도에는 눈이 날리는 곳이 있겠습니다.   강원도에는 눈이 날리는 곳이 있겠습니다.

nayil   *Cenla.nam.to-ey-nun*   *pi-ka*   *o-nun*   *nayil*   *Cenla.nam.to-ey-nun*   *pi-ka*   *o-nun*

tomorrow   Cholla.south.province-DAT-TOP rain-NOM come-ADN   tomorrow   Cholla.south.province-DAT-TOP rain-NOM come-ADN

    kos-i   *iss-**keyss**-umyense*   *Kangwen.to-ey-nun*   *nwun-i*   *kos-i*   *iss-**keyss**-ko*   *Kangwen.to-ey-nun*   *nwun-i*

place-NOM   be-**MOD**-SIM   Kangwon.province-DAT-TOP snow-NOM   place-NOM   be-**MOD**-CVB Kangwon.province-DAT-TOP snow-NOM

    nalli-nun   *kos-i*   *iss-**keyss**-supnita*   *nalli-nun*   *kos-i*   *iss-**keyss**-supnita*

flutter-ADN   place-NOM   be-**MOD**-DECL.FORM   flutter-ADN   place-NOM   be-**MOD**-DECL.FORM

average index \ grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
1 (15/15)	8 pers.	4 pers.	-	1 pers.	2 pers.	-

average index \ grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
5 (75/15)	-	-	-	-	-	15 pers.

43. This item shows that suffix -*keyss* (-겠), denoting presumption, cannot surface in non-final subordinate clauses.

a. 비가 더 강해지면 곳곳에 홍수가 나**겠**습니다.

  pi-ka   *te*   *kanghayci-myen*   *kos.kos-ey*

rain-NOM more strengthen-COND place.place-GOAL

hongswu-ka   *na-**keyss**-supnita*

flood-NOM happen-**MOD**-DECL.FORM

average index \ grade	"0"	"1"	"2"	"3"	"4"	"5"
4,73 (71/15)	-	-	1 pers.	-	1 pers.	13 pers.

b. 비가 더 강해지**겠**으면 곳곳에 홍수가 나**겠**습니다.

  pi-ka   *te*   *kanghayci-**kess**-umyen*   *kos.kos-ey*

rain-NOM more strengthen-**MOD**-COND place.place-GOAL

hongswu-ka   *na-**keyss**-supnita*

flood-NOM happen-**MOD**-DECL.FORM

average index \ grade	"0"	"1"	"2"	"3"	"4"	"5"
0,2 (3/15)	12 pers.	3 pers.	-	-	-	-

44. This item shows that suffix -*keyss* (-겠), denoting intention, can surface in non-final coordinate clauses.

a. 내일은 집안 청소를 하**겠**고서 모레는 세탁을 하**겠**다.

  nayil-un   *cipan.chengso-lul*   *ha-**keyss**-ko-se*

tomorrow-TOP house.cleaning-ACC do-**MOD**-CVB-EMP

    moley-nun *seythak-ul* *ha-**keyss**-ta*

day after tomorrow-TOP wash-ACC do-**MOD**-DECL.PLAIN

average index \ grade	"0"	"1"	"2"	"3"	"4"	"5"
0 (0/15)	15 pers.	-	-	-	-	-

b. 내일은 집안 청소를 하**겠**고 모레는 세탁을 하**겠**다.

  nayil-un   *cipan.chengso-lul*   *ha-**keyss**-ko*

tomorrow-TOP house.cleaning-ACC do-**MOD**-CVB

    moley-nun *seythak-ul* *ha-**keyss**-ta*

day after tomorrow-TOP wash-ACC do-**MOD**-DECL.PLAIN

average index \ grade	"0"	"1"	"2"	"3"	"4"	"5"
5 (75/15)	-	-	-	-	-	15 pers.

45. This item shows that SH is not obligatory to be specified overtly (in contrast to European subject-verb agreement).

a. 그할아버지는 춤도 잘 추고 노래도 잘 부르**신**다.

  ku. halapoci-nun   chwum-to   cal   chwu-ko

that.grandfather-TOP dance-also well   dance-CVB

  *nolay-to   cal   pwulu-**si**-nta*

song-also   well   sing-**SH**-DECL.PLAIN

b. 그할아버지는 춤도 잘 추**시**고 노래도 잘 부른다.

  *ku. halapoci-nun chwum-to cal   chwu-**si**-ko*

that. grandfather-TOP dance-also well   dance-**SH**-CVB

  nolay-to   cal   pwulu-nta

song-also   well   sing-DECL.PLAIN

average index / grade	"0"	"1"	"2"	"3"	"4"	"5"
3,93 (59/15)	-	2 pers.	-	2 pers.	4 pers.	7 pers.

average index / grade	"0"	"1"	"2"	"3"	"4"	"5"
2,13 (32/15)	4 pers.	3 pers.	1 pers.	1 pers.	6 pers.	-

46. This item shows that SH is optional (in contrast to European subject-verb agreement).

a. 그 할아버지는 춤도 잘 추**시**고 노래도 잘 부르**신**다.

  *ku. halapoci-nun   chwum-to   cal   chwu-**si**-ko*

that.grandfather-TOP dance-also well   dance-**SH**-CVB

  *nolay-to   cal   pwulu-**si**-nta*

song-also   well   sing-**SH**-DECL.PLAIN

b. 그 할아버지는 춤도 잘 추**시**고 노래도 잘 부른다.

  *ku. halapoci-nun chwum-to cal   chwu-**si**-ko*

that. grandfather-TOP dance-also well   dance-**SH**-CVB

  nolay-to   cal   pwulu-nta

song-also   well   sing-DECL.PLAIN

average index / grade	"0"	"1"	"2"	"3"	"4"	"5"
5 (75/15)	-	-	-	-	-	15 pers.

average index / grade	"0"	"1"	"2"	"3"	"4"	"5"
2,33 (35/15)	3 pers.	3 pers.	-	4 pers.	5 pers.	-

47. This item shows that SH is not obligatory even in sentences with two different subjects.

a. 할머니는 신문을 읽고 할아버지는 책을 읽**으신**다.

    halmeni-nun   *sinmwun-ul*   *ilk-ko*

grandmother-TOP   newspaper-ACC   read-CVB

    halapoci-nun   *chayk-ul*   *ilk-**usi**-nta*

grandfather-TOP   book-ACC   read-**SH**-DECL.PLAIN

b. 할머니는 신문을 읽**으시**고 할아버지는 책을 읽는다.

    halmeni-nun   *sinmwun-ul*   *ilk-**usi**-ko*

grandmother-TOP   newspaper-ACC   read-**SH**-CVB

    halapoci-nun   *chayk-ul*   *ilk-nunta*

grandfather-TOP   book-ACC   read-DECL.PLAIN

grade / average index	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
3,53 (53/15)	-	2 pers.	2 pers.	2 pers.	4 pers.	5 pers.

grade / average index	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
2,2 (33/15)	4 pers.	2 pers.	1 pers.	3 pers.	5 pers.	-

48. This item shows that SH is optional even in sentences with two different subjects.

a. 할머니는 신문을 읽**으시**고 할아버지는 책을 읽**으신**다.

    halmeni-nun   *sinmwun-ul*   *ilk-**usi**-ko*

grandmother-TOP   newspaper-ACC   read-**SH**-CVB

    halapoci-nun   *chayk-ul*   *ilk-**usi**-nta*

grandfather-TOP   book-ACC   read-**SH**-DECL.PLAIN

b. 할머니는 신문을 읽**으시**고 할아버지는 책을 읽는다.

    halmeni-nun   *sinmwun-ul*   *ilk-**usi**-ko*

grandmother-TOP   newspaper-ACC   read-**SH**-CVB

    halapoci-nun   *chayk-ul*   *ilk-nunta*

grandfather-TOP   book-ACC   read-DECL.PLAIN

grade / average index	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
5 (75/15)	-	-	-	-	-	15 pers.

grade / average index	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
2,13 (32/15)	4 pers.	2 pers.	1 pers.	4 pers.	4 pers.	-

49. This item shows that SH can surface in non-final subordinate (conditional) clauses (49b).

a. 너 클릭 안하**시**면 후회해!

*khullik an-ha-**si**-myen hwuhoyha-y*

click NEG-do-**SH**-COND regret-DECL.INTIM

b. 클릭 안하**시**면 후회하**십**니다.

*khullik an-ha-**si**-myen hwuhoyha-**si**-pnita*

click NEG-do-**SH**-COND regret-**SH**-DECL.FORM

average index ╲ grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
0,33 (5/15)	11 pers.	3 pers.	1 pers.	-	-	-

average index ╲ grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
4,13 (62/15)	-	2 pers.	1 pers.	-	2 pers.	10 pers.

50. This item shows that SH is optional in non-final subordinate (conditional) clauses (cf. 49b and 50a).

a. 클릭 안하면 후회하**십**니다.

*khullik an-ha-myen hwuhoyha-**si**-pnita*

click NEG-do-COND regret-**SH**-DECL.FORM

b. 너 클릭 안하**시**면 후회해!

*khullik an-ha-**si**-myen hwuhoyha-y*

click NEG-do-**SH**-COND regret-DECL.INTIM

average index ╲ grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
3,8 (57/15)	-	2 pers.	1 pers.	1 pers.	5 pers.	6 pers.

average index ╲ grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
0,2 (3/15)	12 pers.	3 pers.	-	-	-	-

51. This item shows that SH can surface in non-final subordinate (temporal) clauses.

a. 할아버지가 아침에 나가**셔**서 저녁에 돌아오**셨**다.

    halapeci-ka   *achim-ey naka-**sye**-se*

grandfather-NOM   morning-DAT leave-**SH**-CVB

   *cenyek-ey   tolao-**sye**-ss-ta*

evening-DAT return-**SH**-PAST-DECL.PLAIN

b. 할아버지가 아침에 나가**셔**서 저녁에 돌아왔다.

    halapeci-ka   *achim-ey naka-**sye**-se*

grandfather-NOM   morning-DAT leave-**SH**-CVB

   cenyek-ey   tolawa-ss-ta

evening-DAT return-PAST-DECL.PLAIN

average index ╲ grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
5 (75/15)	-	-	-	-	-	15 pers.

average index ╲ grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
1,87 (28/15)	5 pers.	2 pers.	2 pers.	2 pers.	4 pers.	-

52. This item shows that SH is optional in non-final subordinate (temporal) clauses (cf. 51a and 52a).

a. 할아버지가 아침에 나가서 저녁에 돌아오**셨**다.

    halapeci-ka   *achim-ey naka-se*

grandfather-NOM   morning-DAT leave-CVB

   *cenyek-ey   tolao-**sye**-ss-ta*

evening-DAT return-**SH**-PAST-DECL.PLAIN

b. 할아버지가 아침에 나가**셔**서 저녁에 돌아왔다.

    halapeci-ka   *achim-ey naka-**sye**-se*

grandfather-NOM   morning-DAT leave-**SH**-CVB

   cenyek-ey   tolawa-ss-ta

evening-DAT return-PAST-DECL.PLAIN

average index ╲ grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
3,93 (59/15)	-	1 pers.	-	2 pers.	8 pers.	4 pers.

average index ╲ grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
2 (30/15)	4 pers.	2 pers.	2 pers.	5 pers.	1 pers.	1 pers.

53. This item shows that two adnominal adjectives can be conjoined by parataxes, whereas two adnominal verbs (participles) cannot.

a. 사람이 많은 복잡한 거리

   *salam-i   manh-**un** pokcapha-**n**   keli*

people-NOM many-**ADN**   busy-**ADN**   street

b. 읽는 쓰는 사람

   *ilk-**nun**   ssu-**nun** salam*

read-**ADN** write-**ADN**   man

average index \ grade	"0"	"1"	"2"	"3"	"4"	"5"
5 (75/15)	-	-	-	-	-	15 pers.

average index \ grade	"0"	"1"	"2"	"3"	"4"	"5"
0,13 (2/15)	13 pers.	2 pers.	-	-	-	-

54. This item shows that the copula *-i* (-이-) is optional after all vowels (here, copular *-i* meets the same vowel, i.e. high front *-i*).

a. 오른쪽은 어머니고 왼쪽은 딸이다.

*olunccok-un   emeni-ko   oynccok-un   ttal-**i**-ta*

right-TOP   mother-CVB   left-TOP daughter-COP-DECL.PLAIN

b. 오른쪽은 어머니**이**고 왼쪽은 딸**이**다.

*olunccok-un   emeni-**i**-ko oynccok-un   ttal-**i**-ta*

right-TOP mother-**COP**-CVB   left-TOP daughter-COP-DECL.PLAIN

average index \ grade	"0"	"1"	"2"	"3"	"4"	"5"
4,4 (66/15)	-	-	-	2 pers.	5 pers.	8 pers.

average index \ grade	"0"	"1"	"2"	"3"	"4"	"5"
3,87 (58/15)	2 pers.	-	1 pers.	-	4 pers.	8 pers.

55. This item shows that the copula *-i* (-이-) is optional after all vowels (here, copular *-i* meets low back *-a*).

a. 오른쪽은 엄마고 왼쪽은 딸**이**다.

*olunccok-un   emma-ko   oynccok-un   ttal-**i**-ta*

right-TOP   mummy-CVB   left-TOP   daughter-COP-DECL.PLAIN

b. 오른쪽은 엄마**이**고 왼쪽은 딸**이**다.

*olunccok-un   emma-**i**-ko oynccok-un   ttal-**i**-ta*

right-TOP mummy-**COP**-CVB left-TOP daughter-**COP**-DECL.PLAIN

grade / average index	"0"	"1"	"2"	"3"	"4"	"5"
4,53 (68/15)	-	-	-	1 pers.	5 pers.	9 pers.

grade / average index	"0"	"1"	"2"	"3"	"4"	"5"
3,8 (57/15)	-	2 pers.	1 pers.	1 pers.	5 pers.	6 pers.

56. This item shows that the copula *-i* (-이-) is optional after all vowels (here, unrounded copular *-i* meets rounded *-u*).

a. 아버지는 교수고 나는 학생**이**다.

*apoci-nun   kyoswu-ko na-nun   haksayng-**i**-ta*

father-TOP   teacher-CVB   I-TOP   student-COP-DECL.PLAIN

b. 아버지는 교수**이**고 나는 학생**이**다.

*apoci-nun   kyoswu-**i**-ko na-nun haksayng-**i**-ta*

father-TOP   teacher-**COP**-CVB   I-TOP   student-**COP**-DECL.PLAIN

grade / average index	"0"	"1"	"2"	"3"	"4"	"5"
4,2 (63/15)	-	-	1 pers.	2 pers.	5 pers.	7 pers.

grade / average index	"0"	"1"	"2"	"3"	"4"	"5"
4,2 (63/15)	-	-	1 pers.	1 pers.	7 pers.	6 pers.

57. This item shows that the copula *-i* (-이-) cannot be omitted after consonants.

a. 이것은 미역국고 저것은 오이국**이**다.

i.kes-un   *miyekkwuk-ko*

this.thing-TOP   miyekkwuk-CVB

ce.kes-un   *oikwuk-**i**-ta*

that.thing-TOP   *oikwuk*-**COP**-DECL.PLAIN

b. 이것은 미역국**이**고 저것은 오이국**이**다.

i.kes-un   *miyekkwuk-**i**-ko*

this.thing-TOP   miyekkwuk-**COP**-CVB

ce.kes-un   *oikwuk-**i**-ta*

that.thing-TOP   *oikwuk*-**COP**-DECL.PLAIN

average index grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
0 (0/15)	15 pers.	-	-	-	-	-

average index grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
5 (75/15)	-	-	-	-	-	15 pers.

58. This item shows that wh-elements can stay in-situ in questions with coordination.

(형세: 김선생님과 최선생님이 미국에 가셨다) (Teacher Kim and teacher Choi went to America.)

a. 김선생님과 누가 미국에 가셨어요?

Kim sensayngnim-kwa   *nwu-ka* *mikwuk-ey* *ka-sye-ss-eyo*

Kim   teacher-CONN who-NOM USA-GOAL go-SH-PAST-QU.POL

b. 김선생님과 누가 미국에 갔어요?

Kim sensayngnim-kwa   *nwu-ka* *mikwuk-ey* *ka-ss-eyo*

Kim   teacher-CONN who-NOM USA-GOAL go-PAST-QU.POL

average index grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
4,47 (67/15)	-	1 pers.	-	1 pers.	2 pers.	11 pers.

average index grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
3,87 (58/15)	-	1 pers.	-	2 pers.	9 pers.	3 pers.

59. This item shows that wh-elements can be extracted from *and*-structures.

(형세: 김선생님과 최선생님이 미국에 가셨다) (Teacher Kim and teacher Choi went to America.)

a. 누가 김선생님과 미국에 가셨어요?

  nwu-ka Kim sensayngnim-kwa mikwuk-ey ka-sye-ss-eyo

who-NOM Kim   teacher-CONN   USA-GOAL go-SH-PAST-QU.POL

b. 누가 김선생님과 미국에 갔어요?

  nwu-ka Kim sensayngnim-kwa mikwuk-ey ka-ss-eyo

who-NOM Kim   teacher-CONN   USA-GOAL go-PAST-QU.POL

average index \ grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
4,53 (68/15)	-	1 pers.	-	1 pers.	1 pers.	12 pers.

average index \ grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
4 (60/15)	-	-	-	2 pers.	11 pers.	2 pers.

60. This item shows that wh-elements raised from *with*-structures are undistinguishable from wh-elements raised from *and*-structures (cf. 60a and 59a).

(형세: 김선생님이 최선생님과 미국에 가셨다) (Teacher Kim went to America with teacher Choi.)

a. 누가 최선생님과 미국에 가셨어요?

  nwu-ka Choi sensayngnim-kwa mikwuk-ey ka-sye-ss-eyo

who-NOM Choi   teacher-COM   USA-GOAL go-SH-PAST-QU.POL

b. 누가 최선생님과 미국에 갔어요?

  wu-ka Choi sensayngnim-kwa mikwuk-ey ka-ss-eyo

who-NOM Choi teacher- COM   USA-GOAL go-PAST-QU.POL

average index \ grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
4,53 (68/15)	-	-	1 pers.	2 pers.	-	12 pers.

average index \ grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
3,87 (58/15)	-	1 pers.	-	1 pers.	11 pers.	2 pers.

61. This item shows that medial tensing demonstrates a very slight tendency towards contrastive focus.

a. 민호는 밥 지었고 미형은 국 끓였다.

*Minho-nun   pap-ul   ci-**ess**-ko*

Minho-TOP   rice-ACC   cook-**PAST**-CVB

*Mihyeng-un   kwuk-ul   kkulh-i-**ess**-ta*

Mihyeng-TOP soup-ACC   seethe-CAUS-**PAST**-DECL.PLAIN

b. 민호가 밥 지었고 미형이 국 끓였다.

*Minho-**ka**   pap-ul   ci-**ess**-ko*

Minho-**NOM** rice-ACC   cook-**PAST**-CVB

*Mihyeng-**i**   kwuk-ul   kkulh-i-**ess**-ta*

Mihyeng-**NOM**   soup-ACC seethe-CAUS-**PAST**-DECL.PLAIN

average index \ grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
3,93 (59/15)	-	-	2 pers.	2 pers.	6 pers.	5 pers.

average index \ grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
3,87 (58/15)	-	-	-	5 pers.	7 pers.	3 pers.

62. This item shows that medial tensing is more natural with the additive particle (i.e. it encodes expanding focus).

a. 민호가 밥 지었고 국 끓였다.

*Minho-ka   pap   ci-**ess**-ko*

Minho-NOM rice   cook-**PAST**-CVB

*kwuk   kkulh-i-**ess**-ta*

soup   seethe-CAUS-**PAST**-DECL.PLAIN

b. 민호가 밥도 지었고 국도 끓였다.

*Minho-ka   pap-to   ci-**ess**-ko*

Minho-NOM rice-also   cook-**PAST**-CVB

*kwuk-to   kkulh-i-**ess**-ta*

soup-also   seethe-CAUS-**PAST**-DECL.PLAIN

average index \ grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
3,2 (48/15)	1 pers.	-	2 pers.	4 pers.	8 pers.	-

average index \ grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
5 (75/15)	-	-	-	-	-	15 pers.

63. This item shows that OAH cannot violate the linear principle of headedness.

a. 제주도에는 비가 오는 곳이 있**었**고
   강원도에는 눈이 날리는 곳이 있**었겠**습니다.

   cecwu.to-ey-nun   pi-ka   o-nun   kos-i
   Cheju.island-LOC-TOP rain-NOM come-ADN place-NOM

   *iss-**ess**-ko   Kangwen.to-ey-nun   nwun-i*
   be-**PAST**-CVB Kangwon.province-DAT-TOP   snow-NOM

   *nalli-nun   kos-i   iss-**ess-keyss**-supnita*
   flutter-ADN   place-NOM   be-**PAST-MOD**-DECL.FORM

b. 제주도에는 비가 오는 곳이 있**겠**고
   강원도에는 눈이 날리는 곳이 있**었겠**습니다.

   cecwu.to-ey-nun   pi-ka   o-nun   kos-i
   Cheju.island-LOC-TOP rain-NOM come-ADN place-NOM

   *iss-**keyss**-ko   Kangwen.to-ey-nun   nwun-i*
   be-**MOD**-CVB Kangwon.province-DAT-TOP   snow-NOM

   *nalli-nun   kos-i   iss-**ess-keyss**-supnita*
   flutter-ADN   place-NOM   be-**PAST-MOD**-DECL.FORM

average index ╲ grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
2,13 (32/15)	3 pers.	3 pers.	3 pers.	2 pers.	3 pers.	1 pers.

average index ╲ grade	*"0"*	*"1"*	*"2"*	*"3"*	*"4"*	*"5"*
1,33 (20/15)	5 pers.	5 pers.	2 pers.	2 pers.	-	1 pers.

D. Medial nominal inflection: constructing a grammaticality hierarchy

In order to build the grammaticality hierarchy of the medial nominal inflection, we need to calculate the average grammaticality index for each affix. The average grammaticality index is calculated in the following way: the total number of points the corresponding medial affix scored in all patterns it occurs in is divided by the number of patterns and by the number of participants (15 persons).

Plural marker scored 149 points in two patterns: 74 points in pattern (4a) and 75 points in pattern (19a). The average grammaticality index for medial plural marker is therefore **4,97** (149 : 2 : 15). This result lies in the '**grammatical**' section of the scale (3,34 − 5). It can be also noticed that judging by the survey results the marking of both conjuncts with plural is even more preferable for native speakers than 'phrase marking' with single plural affix on the final conjunct: 4,93 vs. 3,4 (cf. (4a) and (5a)).

Ablative case-marker (aka animate source, or animate locative) scored 252 points in 5 patterns: 55 points in (7a), 49 points in (9a), 48 points in (16b), 53 points in (18a), 47 points in (19b). The grammaticality index for the medial ablative averages **3,36** (252 : 5 : 15). This result also lands in the '**grammatical**' section of the scale (3,34 − 5).

Inanimate source (aka inanimate locative) scored 142 points in 4 patterns: 28 points in (14b), 38 points in (16a), 38 points in (20b), 38 points in (22a). The average grammaticality index for the medial inanimate locative amounts to **2,37** (142 : 4 : 15). That places inanimate source into the '**moderately grammatical**' section of the scale (1,67 − 3,33).

Animate dative case-marker scored 172 points in 5 patterns: 34 points in (10a), 33 points in (11a), 33 points in (17b), 35 points in (18b), 37 points in (20a). The average grammaticality index for the medial animate dative case makes **2,29** (172 : 5 : 15). This corresponds to the '**moderately grammatical**' section of the scale (1,67 − 3,33), too. It is also worth mentioning that animacy-assigning dative case-marker demonstrates a slightly smaller degree of grammaticality than inanimate source case-marker (2,29 vs. 2,37).

Inanimate dative (or goal) case-marker scored 100 points in 4 patterns: 15 points in (13b), 23 points in (17a), 35 points in (21a), 27 points in (22b). The average grammaticality index for the medial inanimate dative case amounts to **1,67** (100 : 4 : 15). This rate lies on the very edge of the '**moderately grammatical**' section of the scale (1,67 – 3,33).

Instrumental case scored 27 points in two patterns: 18 points in (15b), 9 points in (21b). The average grammaticality index for the medial instrumental case amounts to **0,9** (27 : 2 : 15). This is the '**ungrammatical**' section of the scale (0 – 1,66).

Having calculated the grammaticality index for each inflectional affix in medial position, we can build a grammaticality hierarchy of nominal inflection by ranging them on the grammaticality scale (Table 8).

Table 8. Medial nominal inflection: grammaticality scale

scale sectors	grammatical (3,34 - 5)		moderately grammatical (1,67 - 3,33)			ungrammatical (0 - 1,66)
affix	PL	ABL (anim)	LOC (inanim)	DAT (anim)	DAT (inanim)	INS
grammaticality index	4,97 / 5	3,36 / 5	2,37 / 5	2,29 / 5	1,67 / 5	0,9 / 5