THE VERBAL FUNCTIONAL DOMAIN

IN THE DENIZLI DIALECT OF TURKISH

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in the Denizli Dialect of Turkish

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Thesis Abstract

Yağmur Sağ, "The Verbal Functional Domain in the Denizli Dialect of Turkish"

In this thesis, I study the verbal domain in the Denizli Dialect of Turkish including syntactic and morphological characteristics of the functional categories (Tense, Aspect, Modality), the copulas *i-* and *ol-*, and person agreement markers.

I first aim at presenting a novel look at the morpho-syntax of the Turkish verbal domain, in light of two realizational theories, Distributed Morphology (Halle & Marantz, 1993, among others) and Nano-syntax (Starke, 2009, among others), which to my knowledge has not been done for Turkish before. Standard Turkish and Denizli Dialect behave the same in this respect. I try to give an account on the distribution of copula and the reason why it is realized in the structure. I argue that the copula is merged in order to satisfy the requirements of the functional categories to have a visible VP in their domains (cf. Enç, 2004, Kelepir, 2003).

As for the nature of the insertion of phonological pieces to the structure produced by the syntax, because of the exceptional behavior of *-mIş* in terms of the Subset Principle of Distributive Morphology, I adopt Nano-syntactic theory and its most basic principle, The Superset Principle and present an analysis based on its tenets.

Lastly, I outline an analysis on the person agreement mechanism of the Denizli Dialect. The verbal and nominal person agreement (spelled-out by two different paradigms) show differences in the Denizli Dialect and in capturing the different behaviors of them, I claim that the two agreement types (verbal and nominal) have different syntactic positions, establishing different kinds of relations. The verbal agreement relation is established inside the predicate structure, whereas the nominal agreement relation is established outside the predicate, in the C level (following Miyagawa, 2010). In addition to the different behaviors of the two agreement types, the spell-out mechanism of the person agreement is also analyzed within the Nano-syntactic framework.

Tez Özeti

Yağmur Sağ, "Türkçe'nin Denizli Ağzı'ndaki İşlevsel Eylem Bölgesi"

Bu tezde, Denizli Ağzı'nın işlevsel eylem bölgesi çalışılmıştır. Bu bölge işlevsel ulamların (Zaman, Görünüş, Kiplik) sözdizimsel ve biçimbirimsel özelliklerini, *i-* ve *ol-* koşaçlarını ve kişi uyumunu içermektedir.

İlk olarak Türkçe'nin biçim-sözdizimsel eylem bölgesine yeni bir bakışı sunmayı amaçlamaktayım. Bu yeni bakış iki gerçekleştirme kuramları olan Dağıtılmış Biçimbilgisi (Halle & Marantz, 1993 ve diğerleri) ve benim bilgim dahilinde daha önce Türkçe'ye uyarlanmamış Nano-sözdizim (Starke, 2009 ve diğerleri) kuramları çerçevesindedir. Ölçünlü Türkçe ve Denizli Ağzı bu bağlamda benzerdirler. Koşacın dağılımını ve yapıda neden ortaya çıktığını açıklamaya çalışmaktayım. Koşacın eylem bölgesindeki işlevsel ulamların sözdizimsel gerekliliği sonucu ortaya çıktığını savunmaktayım. Bu ulamların alanlarında görülebilen bir Eylem Öbeğine ihtiyaçları olduklarını önermekteyim. Koşaç böyle bir Eylem Öbeğinin yapıda eksik olması durumunda ortaya çıkar (cf. Enç, 2004, Kelepir, 2003).

Sesbilimsel parçaların sözdizim tarafından oluşturulan yapıya girmesinin doğasına gelince, *-mIş* ekinin Dağıtılmış Biçimbilgisi kuramının Altküme İlkesi dışı davranışta bulunması nedeniyle, Nano-sözdizim kuramını edinmekteyim. Bu kuramın temel ilkesi Üstküme İlkesidir ve bu tez Nano-sözdizim kuramının temel parçalarına ve ilkelerine dayanan bir analiz sunmaktadır.

Son olarak, Denizli Ağzındaki kişi uyum mekanizması üzerine bir analiz sunmaktayım. Eylemcil ve adsıl kişi uyumu (iki farklı dizil tarafından gerçekleştirilen) Denizli Ağzında farklılık göstermektedir. Bu farklılıkları açıklayabilmek için, iki uyum çeşidinin (eylemcil ve adsıl) farklı sözdizimsel yerleri olduğunu ve bu uyumların farklı ilişkiler kurduğunu savunmaktayım. Eylemcil uyum ilişkisi yüklem yapısı içinde kurulurken, adsıl uyum ilişkisi yüklem yapısı dışında olup Tümleyici bölgesinde kurulur (Miyagawa, 2010). İki uyum çeşidinin farklı davranışlarına ek olarak, kişi uyumunun gerçekleştirilme mekanizması da Nano-sözdizim kuramı çerçevesinde analiz edilmiştir.

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My special thanks go to my committee member and the person who made me realize that I should be a linguist: Martina Gračanin Yüksek. If you are reading this thesis now, it is thanks to her, who has always been a friend to me. I enjoyed being like a scientist in her introductory syntax classes which affected me deeply and made me realize that instead of being an English language teacher, I could do something which would make the dreams of my childhood real. In addition to that, she helped me with her great efforts during my thesis writing period although we lived in different cities. She did not hesitate to spend her hours even at the weekends to help me.

I do not know how I could present this thesis to you right now if my thesis advisor Aslı Göksel and my committee member Martina Gračanin Yüksek had been less considerate. The way they cared for my studies and their friendship deserve more than one paragraph here. Thank you for making me a linguist!

My other committee member Meltem Kelepir is a great person. The origins of many ideas in this thesis can be traced back to the Scope class that Meltem Kelepir taught. With this class, I learned how not to be afraid of learning semantics and how to include it in my thesis with an analysis on the interface between morpho-syntax and semantics. She helped me at times when I needed help, especially for the first chapter of this thesis. The effects of our discussions can be easily observed in the thesis.

I am very thankful to Balkız Öztürk who played a leading role in my struggles to learn Distributed Morphology and Nano-syntax which are the main frameworks in this thesis, to Cem Bozşahin for showing me a different perspective than the Generative Framework and being a friend besides a professor during my education at both METU and Boğaziçi University, and to Markus Pöchtrager for showing me the debates between theories of phonology which have broadened my mind in terms of thinking about the nature of language. My thanks also go to Eser Erguvanlı-Taylan and Deniz Zeyrek for being part of my journey in making my dreams real.

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ABBREVIATIONS

0	the null form of the copula *i-*/ the third person agreement/ null form of the Aorist
Ø	covert agreement
ɸ	phi-probe
:	vowel lengthening/ the clitic form of the copula *i-*
1/2/3	first/second/third person
A	Argument/ Author of Speech Event
abil	ability modality
Agr	Agreement head/overt agreement
AgrP	Agreement Phrase
aor	aorist
Asp	Aspect
AspP	Aspect Phrase
C	Complementizer
CP	Complementizer Phrase
cond	conditional
cop	copula
D	Determiner
DD	the Denizli Dialect
DP	Determiner Phrase
ECM	Exceptional Case Marking
epist	epistemic modality
evid	evidential modality
feature-feature	feature to feature pointer
fut	future
G	goal
imperf	imperfective
indic	indicative
lex-lex	lexical item to lexical item pointer
LI	Lexical Item
M	Modality
MP	Modality Phrase
necess	necessity modality
neg	negative marker
nom	nominalizer
P	Probe
Par	participant
ParP	Participant Phrase
perf	perfective
Per	person
PerP	Person Phrase (default third person)
permis	permission
PL	plural
pl	plural
plP	Plural Phrase
poss	possibility modality
Pres	present
pres	present

Pred   Predicate head
pred   predicate
PredP   Predicate Phrase
PSE   Participant in Speech Event
QP   question particle
sg   singular
sgP   Singular Phrase
Sp   speaker
SpP   Speaker Phrase
ST   the Standard Turkish
T   Tense
TAM   Tense-Aspect-Modality
TP   Tense Phrase
V   Verb
VP   Verb Phrase
v   Little verb
vP   Little verb Phrase

CHAPTER 1

INTRODUCTION

1.1 The Aim of the Thesis

This thesis is mainly concerned with the verbal domain in the Denizli Dialect of Turkish (henceforth, DD)[1] including syntactic and morphological characteristics of the functional categories (Tense, Aspect, Modality), the copulas *i-* and *ol-*, and person agreement markers. The first main question that this thesis raises is the following:

  a. In what position are the two copulas, *i-* and *ol-* realized in the structure? What is their purpose (syntactic and semantic)?

As far as the distribution of the copula in Turkish is concerned, the main assumption that has received a wide focus in this thesis is Kelepir (2003) whose analysis is the following. The copula is inserted as a [+verbal] feature under the functional categories that dominate the VP, with the proposal that the insertion of the copula is a syntactic requirement of those functional categories, clustering around three different areas of the syntactic structure. These three areas are called as Zone 1, Zone 2 and Zone 3 in Enç (2004). Zone 1 heads are the lowest and Zone 3 heads are the highest in the structure.

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[1] The data of DD is collected from Çameli region. Note that the dialect shows variances in different parts of Denizli.

I follow Kelepir (2003) in that the copula is a syntactic requirement of functional categories, but, I also claim the following:

(i) The copula is not a [+verbal] feature that is inserted into the functional nodes, but it heads a VP projection. I adopt the claims that there are two different copulas in Turkish (*i-* the 'high copula' and *ol-* the 'low copula' (Göksel, 2001, Kelepir, 2007) and that their positions are in a hierarchical relation.

(ii) In the absence of a visible VP in the structure, the copula is merged in order to satisfy the requirements of the functional categories to have a visible VP in their domains (cf. Enç, 2004, Kelepir, 2003).

In order to capture the role of the copula, I analyze the combined predicate structures where the functional layers are repeated in the syntactic structure, which results in the copula insertion. (I adopt Svenonius's (2008) terminology for complex predicate structures of 'low predicate' and 'high predicate.')

The second main question that the thesis attempts to answer is the following:

b. What kind of spell-out mechanism is applied in the functional structure of complex verbal predication?

To find an answer to this question, this thesis is based on the realizational theory, Nano-syntax (Starke, 2009, Caha, 2009, Taraldsen and Medova, 2007, among others) which to my knowledge has not been applied to Turkish before. I also present a

Distributed Morphological analysis (Halle and Marantz, 1993, Embick, 1995, Harley, 1994, among others) for the comparative purposes.

I aim at showing that my data is best analyzed with the Nano-syntactic theory, where lexical entries are represented in the lexicon as tree structures (lexical trees) and are inserted into the syntactic structure in accordance with the Superset Principle (Starke, 2009). According to the Superset Principle, a lexical tree can spell-out a syntactic structure if it matches either the superset or all of the syntactic structure. I use the Nano-syntactic model enriched by the recent proposal in Starke (2011), Caha and Pantcheva (2012), which allows for the appearance of a single morpheme when more than one are expected. As for the Distributed Morphology, I present arguments that an analysis along the lines of this framework does not account for all of the Turkish data.

The last main question that this thesis seeks an answer for is related to the person agreement mechanism in DD. So the following question is asked:

> c. The verbal and nominal agreement show different behavior in DD. Why and how are the nominal and verbal agreement mechanisms different from each other and how can this difference be accounted for?

There are seven person agreement paradigms in the nominal and verbal domains in DD. This thesis groups them under two main headings, the *k* paradigm and the *z* paradigm (terms used for Standard Turkish- henceforth ST-as well), based on the differences and the similarities of the particular person markings within them.

The main differences between the two paradigms can be summarized as follows:

(i) The single predicates, nominal or verbal, are always marked for person agreement (both the *k* and *z* paradigms).

(ii) In the combined predicates (in the question and coordinated structures), the low predicate can have person agreement on it (the *k* paradigm) at the same time with the high predicate (both *k* and *z* paradigms), resulting in double agreement.

(iii) The agreement on the low predicate as well as on the high predicate is attested only if the low predicate is verbal (the *k* paradigm), not nominal/participle. While the *z* paradigm can only be seen in the predicate final position of a combined predicate structure, differently from it, the *k* paradigm can also be seen on the low predicate.

In capturing the different behaviors of the *k* and *z* paradigms, I claim that the two agreement types, verbal (*k* paradigm) and nominal (*z* paradigm), have different syntactic positions, establishing different kinds of relations. The verbal agreement relation is established inside the predicate structure; however, the nominal agreement relation is established outside the predicate, in the C level (Miyagawa, 2010).

In addition to the different behaviors of the two agreement types, the spell-out mechanism of the person agreement is also analyzed in light of the Nano-syntactic framework as part of the second main question shown in (b).

The first two main questions include the data which are common to both DD and ST, where the copulas and the predicate structures have the same characteristics. For that reason, while attempting to answer those questions, I do not separate the DD and ST data but present a uniform account. On the other hand, the final question is

mainly focused on the DD data, without including a study on the person agreement mechanism in ST as the latter would require a separate study.

In the next section, I will introduce Nano-syntax, which is the main framework used in this thesis, and its basic tenets.

1.2 Nano-syntax: Basic Mechanisms and Operations

Nano-syntax is a novel approach to the spell-out mechanism of syntactic structures, first put forward by Starke (2009) (see also Caha, 2009, Taraldsen and Medova, 2007, Pantcheva, 2009, among others) which assumes that the terminals cannot be lexical items (words or morphemes) and syntax is not a place to arrange lexical items. The theory basically claims that the terminals are submorphemic and they correspond to an entire sub-tree rather than corresponding to a terminal. This implies that the lexicon contains sub-trees, paired with phonological and conceptual information. Spell-out is the operation which matches the tree constructed by syntax with the tree structure stored in the lexicon. Syntax is entirely pre-lexical, and there is no lexicon (lexical entries) feeding syntax (Starke, 2009).

The matching of a tree stored in the lexicon with the tree constructed by syntax is along the lines of (1), which is the SUPERSET PRINCIPLE:

(1) A lexically stored tree matches a syntactic node iff the lexically stored tree contains the syntactic node.

Based on (1), the lexical tree will either be the superset of the syntax it spells-out or it will perfectly match the syntax.

Spell-out is taken to be cyclic, with a spell-out attempt after each merge, and each successful spell-out overrides the previous successful spell-outs. The merger is assumed to be bottom-up, the biggest match will always override the smaller matches, which leads to a theorem shown in (2) also called as OVERRIDE EFFECT.

(2)   OVERRIDE EFFECT: the biggest wins.

When two or more than two lexical items can spell-out a syntactic tree in one go, ELSEWHERE PRINCIPLE shown in (3) works.

(3)   At each cycle, if several lexical items match the root node, the candidate with least unused nodes wins.

Throughout the thesis, the data of DD will be represented in this theory, and some modifications will be suggested.

1.3 The Outline of the Thesis

In Chapter 2, I discuss the previous studies on DD and ST regarding the copula, functional categories and the person agreement mechanism. The works that I mainly refer to throughout the thesis are summarized in this section. These are Kornfilt (1996), Erdal (2000), Göksel (2001), Kelepir (2003) and Enç (2004).

In Chapter 3, which includes the discussion of the copula and some tense/aspect/modality markers which are identical in the two dialects, I give an account of the distribution of the copula and the reasons why it is realized in the

structure. In Section 3.1, I focus on the previous studies of the copula in the syntactic structure, in Section 3.2, I extend the insertion of the copula to the conditions where the combined predicate structures occur and in Section 3.3 I present the analysis on the distribution of the copula.

Chapter 4 presents an analysis of the spell-out mechanism of the Turkish verbal domain, in light of two realizational theories, Distributed Morphology (i.e Halle and Marantz, 1993) and Nano-syntax (i.e. Starke, 2009). In 4.1, I present a Nano-syntactic analysis and show how the Superset Principle and pointers can explain the phonological realization of the Turkish data. In Section 4.2 I show that the Subset Principle in Distributed Morphology remains insufficient in accounting for this.

Chapters 3 and 4 include the verbal domain of Turkish which is common to the two dialects; therefore, I present a uniform account which represent the data in both DD and ST.

However, in Chapter 5, which presents an analysis of the person agreement mechanism, I rotate my aims to DD data only where the verbal and nominal agreement show distinct behaviors, excluding any analysis of ST. In Sections 5.2 and 5.3 I analyze the syntactic positions of the two person agreement types. In Section 5.4 I present a Nano-syntactic analysis on the spell-out mechanism of the person agreement in DD.

In Chapter 6, I summarize the basic claims of the thesis and present the remaining issues waiting to be addressed in future studies.

CHAPTER 2

LITERATURE SURVEY

2.1 The Previous Studies on the Denizli Dialect of Turkish

In the literature, the dialect of Turkish spoken in Denizli has not been studied from a formal perspective. The studies on this dialect mostly focus on the phonetic description of its sounds, words, and some morphological elements and their historical changes.

Korkmaz (1994) presents texts that have been collected from the Denizli region and its districts, and gives phonetic information about the dialects spoken in Denizli. The study is descriptive and it does not give a formal analysis.

Karahan (1996) groups Denizli dialect as the first sub-group of Western Anatolian dialects. The criteria for grouping are based on phonetic properties and changes of dialects.

Akar (2004) describes the phonetic, phonological, and morphological elements of Muğla dialect, a dialect which is similar to DD, at least to the dialects in Acıpayam and Çameli regions. Thus, the data in Akar's work can be thought of as parallel to the data which have been collected from the Çameli region for this thesis.

Tok (2003, 2006a, 2006b, 2006c, 2008a, 2008b, 2009) has studied the dialects spoken in Acıpayam and Çal regions of Denizli. The focus of these studies is on the description of phonetic and phonological properties, the usage of some morphological elements, and historical changes in them.

Besides those studies, there are thesis works on Denizli dialect. The works of Canbaz (1997), Önder (1988), Derin (1995), Ok (1968), Gürel (1975), Karahisarlı (1983), Tanrıkulu (1973), Arslan (1993), Bacanlı (2000), Bozbıyık (1976), İkizoğlu (1976) are among some of them (cited in Gülensoy and Alkaya, 2003).

2.2 The Studies on the Turkish Verbal Domain

In this section, I will summarize the core studies that I mainly refer to in the whole thesis. I will point out five main works: Kornfilt (1996), Erdal (2000), Göksel (2001), Kelepir (2003), and Enç (2004). I present them in the order of the publication. In Kornfilt (1996), the verbal forms and the copula *i-*, which are also one of the core points in this thesis, are the main focus. Erdal (2000) is about the nature of clitics in Turkish and the reason for presenting this work in this chapter, although it is not referred to as much as the other works throughout the thesis, is to introduce the reader to the clitics in Turkish as they widely present the data studied in this thesis. Göksel (2001) analyzes the copula *ol-* both in the matrix and the embedded structures. Kelepir (2003) also deals with the nature of the copular verbs *i-* and *ol-*, which constitute the main blocks of the whole thesis, and this work is widely referred to throughout Chapter 3. Enç (2004) is another study that I mainly concentrate on in Chapter 3 and it is a valuable work on the verbal domain of Turkish, which includes the functional categories, person agreement and the copular verbs *i-* and *ol-*.

<u>2.2.1 Kornfilt (1996): Verbal Forms and the Copula *i-*</u>

According to Kornfilt (1996), in ST there are two kinds of verbal forms, genuine verbal forms, and fake or copular verbal forms. The former includes the definite past *-DI* and the conditional *-sA*, while the latter includes all the other tense-aspect-mood inflections, which are claimed to be the inflections on the copula, not the main verb. The two groups also show differences in subject agreement suffixes and stress patterns, which are regular in the former and irregular in the latter.

The palatal glide *-y* is the cliticized version of the free (strong) copula *i-*, and word stress is determined before cliticization. However, vowel harmony is done after it.

There are three basic claims in this study. Firstly, the copula in the present tense for both strong and clitic forms is null. Otherwise, it is *i-* in the strong forms and *-y* in the cliticized forms. Secondly, the domain of vowel harmony is the word while the domain of stress is the 'small word', the domain preceding the clitic. Finally, the simple verb forms are actually participles with the exceptions of the definite past and the conditional; they have exceptional stress pattern and different shape of agreement suffixes than the genuine verbal forms.

According to Kornfilt, in the genuine verbal forms in Turkish, the stress is on the final syllable, so agreement markers do not attach to the copula but directly to the verbal structure as shown in (1a). However, in nominal forms (participles), there is a null copula (the present tense form of the copula *i-*) between the participle and the person agreement markers as shown in (1b), based on the fact that the stress is on the syllable before the agreement marker. Kornfilt claims that the reason why the person agreement markers on the participles do not receive stress is the result of their

attachment to the copula. Because the copular verb *i-* in Turkish is a clitic, it cannot receive stress, but the stress falls on the preceding syllable.

(1) a. git-ti-m   *genuine verbal form+ person marker*

         go-past.1sg

         'I went.'

     b. gid-eceğ-Ø-im   *fake verbal form+ copula+ person marker*

         go-fut-cop-1sg

         'I will go.'

The conclusion that Kornfilt reaches is that the cliticization occurs in PF. The syntactic phrase structure tress with their lexical and functional projections of the main verb and the copula are separate. Morphological inflection which is truly agglutinative is the result of head-to-head movement. Cliticization is the result of PR-movement of the copular tress down to the main verb trees.

2.2.2 Erdal (2000): The Nature of Clitics in Turkish

Erdal (2000) discusses the clitics in Turkish in this study and compares them with affixes and words. He defines clitics as meaning-bearing entities forming a phonological unit, but not a morphological unit, with an independent word that they attach to. They behave as an affix at the phonological level, but independent words at the morphological level. The morphological host words are grammatical without the clitics.

The differences between the clitics and affixes that are put forward in this study are the following.

(i) While affixes have a high degree of selectivity in combinatorial possibilities, clitics can attach to high variety of word classes.

(ii) No words can enter between a word and an affix but certain verbs can intervene between a clitic and the word that hosts it.

(iii) Affixes can have the normal stress pattern, but clitics cannot. Clitics can be assigned to word classes, whereas most of the affixes cannot.

The differences between clitics and words are summarized as follows.

(i) Clitics bear stress either by a grammatical rule or for highlighting reasons, otherwise they are not stressed, but words have always a stressed syllable.

(ii) Clitics are rigidly ordered with respect to their host, but words can have flexibility.

(iii) Finally, the affixed words can be affected by syntactic operations, while clitic groups cannot be affected by them. Affixes precede cliticization, and cliticization occurs after syntactic operations have been completed.

Erdal classifies Turkish clitics into six groups and defines this grouping as arbitrarily done.

Group 1: The clitic *-(y)ken* 'while', which is a temporal conjunction appended to the clause that it subordinates. The syntactic scope of this clitic is the whole proposition, not just the host word.

Group 2: The postpositional *-(y)lA* 'with' and *-DIr* . The former has also a conjunction role coordinating noun phrases, but the latter has more than one function.

Group 3: The two participial markers *-(y)mIş* and *-DIr* which are used in an epistemic way. Unlike the first group of clitics, they join their host by undergoing vowel harmony and voicing assimilation.

Group 4: The question particle *mI*, the clitic *dA*, the particle *bile*, and the particle for topic contrast *-(y)sA*, which are uninflected as the members of group one and two.

Group 5: The elements *-(y)Im* (the first person singular marker)*, -sIn* (the second person singular marker)*, -(y)Iz* (the first person plural marker), and *-sInIz* (the second person plural marker), which Erdal rejects to be subject agreement suffixes, but accepts as pronominal subjects.

Group 6: Two copula forms *-(y)DI* and *-(y)sA* (the copular forms of the past and the conditional respectively) , which are inflected for reference to subject. When these copulas are present in the word, they open a morphological position for the subject, and the clitic pronouns in group 5 become redundant. The copula clitics always accompany a non-verbal predicate and are never verbally negated. Instead, they are negated through the word *değil*. Thus, neither the suffixes nor the stem of the copula gets stressed.

Erdal states that many Turkish affixes can be adjoined to nouns, pronouns, adjectives and even numerals with a low degree of selectivity, but attachment of clitics to noun phrases is unusual, except for two clitics which are *-(y)lA* and the topicalizing particle *-(y)sA*.

In terms of morphophonemics, Erdal makes three points. The first one is that many clitics undergo vowel harmony with the preceding word, but words do not. The second one is that many Turkish clitics start out with consonant clusters unlike suffixes. The final one is that in verb forms low vowels are raised if a suffix following them starts with a /y/. However, clitics do not show this behavior.

Finally, clitics are never stressed, but Turkish words always have a stressed syllable. The word stress is not affected by the presence of a clitic.

In summary, Erdal compares clitics with affixes and words, and shows the differences between them.

2.2.3 Göksel (2001): The Auxiliary Verb *ol-*

Göksel (2001) focuses on the auxiliary verb *ol-* that is considered to be the indicator of perfect aspect. She shows that the behavior of this verb is not uniform. In main clauses, it contributes to the interpretation of the clause, but in O(bject)R(elative)C(lause)s it is semantically and syntactically inactive, and it is required only for morphological reasons.

Göksel shows that a main clause has up to three positions for functional morphemes. Some morphemes cannot co-occur in one verbal form because they compete for the same slot. When a verbal form has more than three functional suffixes, it contains an additional stem, which is formed with the copula *i-*.

Göksel defines the term compound verb as verbal constructions that contain a main verb and at least one auxiliary verb. The auxiliary verb *ol-* cannot occur with all of the temporal and modal adverbs, which shows that it has aspectual properties. The ungrammaticality of *ol-* with an adverb like *geçen yıl* 'last year', certain adverbials like *en sonunda* 'finally' and *zamanında* 'on time', and the grammaticality of *ol-* with some adverbs like *böylecene* 'so' show that *ol-* functions as an auxiliary verb which has semantic and syntactic properties in main clauses. Conversely, in ORCs the auxiliary *ol-* is semantically and syntactically inactive. The evidence is that the presence of *ol-* in ORCs does not affect the selection of adverbs. Hence, the auxiliary has a syntactic and semantic function in main clauses and it is a syntactic head that projects a phrasal category, whereas in ORCs it cannot be a syntactic head.

Göksel also supports the difference of the behavior of *ol-* in the main clauses and in ORCs with the placement and interpretation of negation. The negation suffix *-mA* can be attached to either a main or auxiliary verb. In main clauses with *ol-* the particular position of the negative suffix can yield different readings, while these distinctions are not seen in ORCs with *ol-*. In addition to that, the verb forms with *ol-* in main clauses allow the insertion of the interrogative clitic *mI* and the particle *bile,* whereas in ORCs with *ol-,* the grammaticality of their insertion depends on the position of the insertion. In conclusion, the function of the auxiliary *ol-* in the structure of main clauses and ORCs is not uniform. Based on these differences in both structures, Göksel claims that the verb stem *ol-* is not a part of syntactic structure in ORCs, but a morphological requirement.

Göksel excludes the auxiliary verb *ol-* from the syntactic structure of ORCs while she maintains its presence in the structure of main clauses. Then she brings about the question of what forces its presence in the morphology of the ORCs.

Göksel suggests that besides the restriction on the ORCs, which is that it requires auxiliary verb for morphological reasons, there is another restriction on the structure, namely constraints on the upper limit of affixation. She states that one of the conditions on the well-formedness of morphological strings is the position of a particular suffix with respect to the morphemes adjacent to it. This constraint which does not allow the occurrence of morphemes in particular positions is referred as slot-type mismatches.

In light of this suggestion she concludes that the palatal glide in *-(y)DI* is the weak form of the copula *i-*, it is a separate suffix from *-DI*. The copula combines with a number of affixes, one of which is *-DI*. So, she does not accept the suffixes *-DI* and *-(y)DI* as separate suffixes, instead of that, *-DI* attaches to the copula *i-*. This shows that *i-* is also a verb, which is a stress assigner. Thus, a word like *gel-miş -ti* 'He/She/It had come.' actually contains two separate phonological domains. Its morphological properties should be investigated based on the restrictions posed by other well-formedness conditions on structure.

The slot that hosts the copular suffixes *-(y)DI, -(y)mIş* and *-(y)sA* does not stand as separate slot anymore.

These suggestions present a new insight into the size of a verb, in terms of the number of affixes that a stem can allow. Göksel suggests parameterization of languages in terms of the number of affixes they allow after a stem, namely it cannot exceed the maximum defined for the language. She states this number as three for Turkish. When the maximum is exceeded the copula is inserted to host for the new slot.

In summary, the auxiliary *ol-* emerges for the slot-type mismatches and word size conditions, forming a new phonological domain.

2.2.4 Kelepir (2003): The Copulas *i-* and *ol-* as [+verbal] Features

Kelepir (2003) aims to show that the copula is not a verb, but a [+verbal] feature whose phonological shape depends on the head where it is inserted and the features around it. When this feature is inserted into a T head, the shape of it is *-y/0/i-*, but when it is inserted in a V head it is realized as *ol-*. She rejects the word *değil* as the negated form of the copula, but takes it as a second negation head which is above the head of the negation suffix *-mA* and the heads of participles in the hierarchy. Finally, she suggests that the person markers which are generally accepted as copular forms are not actually so, but which person marker groups will be used depends on the last morpheme in the verbal form. She explains their structures in light of Distributed Morphology and Government and Binding theory.

Kelepir shows that a nominal structure whose head is a noun, an adjective, or a participle, has a copula in it. She defines the presence of the copula as a result of a grammatical requirement and not the semantics of the clause. According to her, the copula in Turkish is not an inflected form of a verb, but a [+verbal] feature bearing no semantic content. This feature only fills a grammatical need in the place where it occurs. The basis for this claim is the assumption that the T head needs a verb in order for a sentence to be grammatical. So, in light of Distributed Morphology, in which morphemes can correspond to one node, features or more than one nodes or features, Kelepir proposes that the copula is the result of a morphological insertion to T head which bears [+verbal] feature. The participles are structures which do not have a verbal head to rise to T head, so a copula is inserted for this requirement. Thus, the person markers and tense suffixes are added to the copula.

Kelepir then analyses the status of the verb *ol-* in the structure. She states that this verb fills the grammatical requirement of a presence of a verb in the subordinate clauses, as the copula does in main clauses. However, she raises the following questions: Why do the subordinate clauses need a verb? Why is *ol-* used in subordinate clauses instead of the copula? As an answer for the first question she states that the suffixes *-DIK, -AcAK, -mA(K)* which make a clause subordinated, require to attach to a verbal head, not a nominal head. So, *ol-* fills this position without contributing any semantic meaning. As for the answer of the second question, what she proposes is that the copula is the shape when the feature [+verbal] is attached to a T head. In subordinate clauses there is no T head, or even if it exists, it has a different nature than the one in main clauses. If the feature [+verbal] attaches to V head, its phonological shape is *ol-*.

Kelepir also shows that the word *değil* is not the negated form of the copula as widely assumed, but a second negation head. She bases this on the fact that it occurs before the copula when we look at their morphological order. So, if it were the negated form of the copula, we would expect it to occur in the slot where the copula appears. The position of the head where *değil* is inserted can be said to be below the T head when looked at the morphological order, but above the head of the negation suffix *-mA*. The first negation head can only choose a verbal head, while the second one chooses a nonverbal head.

Finally, she suggests that the person markers which form the *z* paradigm are different from the ones which form the *k* paradigm. She rejects the idea of Kornfilt's that the z-paradigm person markers are the copular person markers. She states that there can be two reasons to call them as such, one of which is that these suffixes come immediately following the copula. The second one is that if there is a copula in

a verbal form, this group of person markers is used. However, she shows that this cannot be true, presenting examples where the person markers may not immediately follow the copula and the *k* paradigm is used even if there is a copula in the verbal form. Hence, she suggests that which person marker group will be used is determined by the last suffix that they attach to.

In conclusion, Kelepir proposes the existence of a [+verbal] feature as a result of grammatical requirements, and it comes out as different shapes in different places. When it is on T head, it is realized as *-i/0/-y*, when it is on V head, its shape is *ol-*. In addition to that, the word *değil* is not the negated form of the copula, but a second negation head in the structure. Finally, the *z* paradigm person markers are not copular, but their occurrence depends on the last suffix that they attach to.

2.2.5 Enç (2004): Zones in the Functional Hierarchy

Enç (2004) suggests that Cinque's (2001) rigid ordering of verbal functional categories does not exist and that Turkish does not show any strict ordering of functional categories. According to Cinque, each functional category has a unique syntactic position and a meaning, and there may not be a one-to-one relation between functional categories and morphemes. Cinque shows scope relations as evidence for his claims, but Enç claims that the different scope interpretations associated with different positions do not mean that there is a universal rigid ordering of functional categories. Turkish indicates that a universal rigid ordering is not possible, and only some of the functional heads, not all of them, show rigid ordering.

Enç (2004) proposes three different zones of morphemes in the verbal structure. In Zone 1, which is the lowest zone, there are the permission/ability marker

-A, the negation morpheme -mA and the ability/possibility modal -AbIl. Zone 2, which is above Zone 1 includes the future -AcAK, the imperfective -(I)yor, the perfective -mIş, the aorist -Ir/-Ar, and the necessity modal -mAlI. Zone 3, which is the highest zone, contains the past tense -DI, and the evidential -mIş.

Zone 1 categories are lower than Zone 2 categories and they do not constitute a semantic natural class. The iteration of Zone 2 morphemes is only possible with the insertion of the copula ol-. Zone 3 categories form the highest zone and can either be attached to the verb, Zone 1 or Zone 2 categories. However, when they are attached to Zone 2 categories, the copula i- is merged before them. The copula i- is different from the copula ol- in that the former only accepts the Zone 3 morphemes after them, while the latter accepts the categories of all zones. When the Zone 3 morphemes attach to either the verb or Zone 1 morphemes, there is no evidence of the presence of a copula. It is impossible to stack Zone 3 categories, only one of them can be used in a verbal form. The three zones proposed by Enç are shown in the tree structure in (2) (adapted from Enç, 2004: 213).

(2)

Zone 3

-DI   past

Zone 2

-mIş   evid

-mAlI   necces

Zone 1

-AcAK/-(I)yor/-mIş/-Ir   fut/imperf/perf/aor

-AbIl   abil/poss

-mA   neg

-A   permis/abil

V
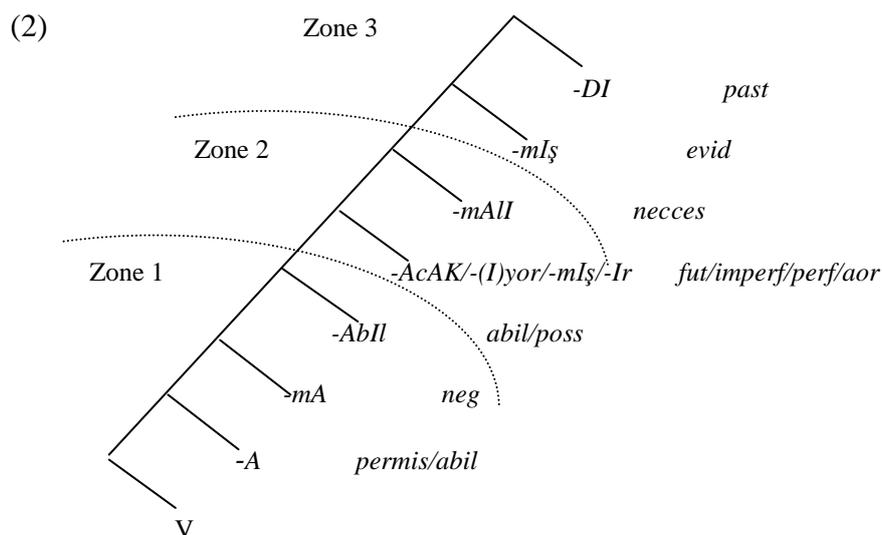
Enç shows the possibility of iteration of Zone 2 morphemes as a counter-example to Cinque's claim of rigid hierarchy of categories.

Enç also shows the similarities of Zone 2 morphemes with nonverbal predicates and concludes that when a Zone 2 category combines with a verb, the resulting form is no longer a verb, but a participle.

The first similarity that Enç shows between nonverbal predicates and structures formed with Zone 2 markers is that Zone 2 categories take the *z* paradigm of person markers as nonverbal predicates do. However, Zone 3 categories take the *k* paradigm person markers, but Enç gives the agreement pattern of the evidential *-mIş* as an exception to this in a footnote. She states that the evidential behaves like a Zone 3 category, but its person marker paradigm is the same as the ones of the Zone 2 morphemes. She points out that this morpheme is homophonous with the Zone 2 morpheme *-mIş*, the perfect, further claiming that the evidential has developed from the perfect and the evidential has not yet lost its Zone 2 characteristics in terms of person agreement.

The second similarity between the non-verbal forms and the Zone 2 categories shown by Enç is that both can occur with the negative copula *değil*, while the Zone 3 categories cannot.

The third similarity, which had previously been pointed out by Sezer (2001), is that both can occur with the morpheme *-(y)ken*, but Zone 3 morphemes cannot.

The last similarity is about the iteration facts. The Zone 2 categories can combine with nonverbal predicates and can be iterated. Each time a Zone 2 category is iterated, it requires a copula. Enç concludes, in light of this fact that Zone 2 categories take verbs as their complements. However, when a Zone 2 category is attached to a verb, the resulting form is non verbal and carries the feature [-V].

In order for a verb to form a grammatical functional predicate, it needs to combine with a functional category, but when this category is from Zone 1, the resulting form is not a predicate. This shows that the result of the attachment of a Zone 1 category to a verb is still a verb. However, this is not the case for the categories in the other zones. When they attach to a verb, they form a functional predicate. So, Zone 1 categories carry the feature of [+V].

Enç assumes the following principle in Turkish:

(3) In finite predicates, the highest category must be [-V].

This principle explains why bare verbs and the ones ending with a Zone 1 morpheme do not form a predicate, while the ones with Zone 2 and 3 can.

Enç concludes that the featural properties of three zones are as the following:

(4) Zone 1 categories are [+V] and select [+V].

Zone 2 categories are [-V] and select [+V].

Zone 3 categories are [-V] and select [+V].

The selection requirements of Zone 2 and 3 show evidence for the obligation of a copula when they are attached to a non-verbal predicate.

Finally, Enç assumes that the copula is [+V] but requires a [-V] complement, with no semantic content. For this reason, it is similar to *do-support* in English as pointed out in Kelepir (2001). Do-support in English is generally accepted as a PF phenomenon, and the copula in Turkish can also be seen like that. However,

Enç proposes an alternative approach where the copula projects a functional category in syntax and all the selectional restrictions are checked there. Otherwise, the selectional requirement of *ol-,* which is [-V], would not be important at PF, which would cause ungrammaticality when *ol-* is attached to a verbal form, because the checking of selectional requirement of *ol-* would not be visible at PF. The surface form of the copula with Zone 1 and 2 is *ol-,* but Zone 3 requires the copula *i-*. Enç assumes that the both copulas have the same syntactic structure but their phonological spell-out depends on which zone of categories attaches to them, which is proposed in Kelepir (2001). In conclusion, Enç rejects a universal rigid hierarchy proposed by Cinque.

In the next section, I will present a highly influential work on the person agreement mechanisms of the world languages; Siewierska (2004). This work has been very useful in the person agreement analysis in this thesis (Chapter 5), especially in coming to some universal conclusions. The aim of presenting this study in this chapter is to introduce the reader to the general mechanism of person agreement and some universal facts about it.

2.3 The Person Agreement in the World Languages

Siewierska (2004) investigates person as a grammatical category with respect to gender, number, case, tense, etc. and focuses on person as a category of the grammatical system of languages. The grammatical category of person distinguishes between the *speaker* of an utterance, the *addressee*, and the *party* talked about that is neither speaker nor addressee. However, person marker inventories do not only mark person, but also other grammatical categories like number, gender, and case, etc. In

addition to this, person markers can also encode information about their referents, such as social status. Languages may also differ in their person markers with respect to the variation of morpho-phonological form of PM inventories. In some languages all person markers are independent forms, while others, in addition to such forms, have also affixes and clitics for person marking.

A *paradigm* is a set of linguistic expressions that occur in the same syntactic slot and each member of the paradigm is in complementary distribution with other members. In addition to having the same syntactic function, each member of a paradigm also has the same morpho-phonological form. (i.e. If one member of the paradigm is a clitic, the others are also clitics.) For example, each member should be independent if one of the members is independent. While there are languages which have only one paradigm of person markers, there are some other languages which have more than one paradigm.

There is a fundamental difference between the first and second person, on the one hand, and the third person on the other. Whereas the first and second persons are referred to by person markers, reference to the third person can be done by any lexical expression. Another difference between them, which is very uncommon though, is that the third person forms may take a different set of case markers than the first and second person forms. These differences among them come from the fact that the first and second person forms are deictic, but the third person form can be both deictic and anaphoric.

Universality of person as a grammatical category is sometimes controversial. This issue is tied to whether all languages have the category of personal pronoun. Traditionally, pronouns have been compared to nouns or NPs. Person pronouns are taken to be a morpho-syntactic category, differing from nouns

in its morphological and syntactic properties. Under this traditional approach, some languages have been considered to lack the person pronouns. More recently, in the generative framework, a pronoun is seen to be not a morpho-syntactic category but rather a feature that separates certain lexical items from others. The feature is 'referential dependency' and pronouns have referential deficiency because the identity of their referents can be determined only by the extra linguistic context. This referential deficiency distinguishes them from proper nouns. In the functional literature, pronouns are viewed as a morpho-syntactic category but the distinction between pronoun and noun is considered to be not discrete but scalar.

The basic division of person markers morpho-phonologically is between *independent* and *dependent* person markers. Independent person forms constitute a separate word and may take primary word stress. Dependent person forms, on the other hand, typically cannot be stressed, are phonologically reduced compared to the independent forms. They may be phonologically dependent on another element. It is generally the case that if a language has dependent markers, it has also independent markers. Dependent person markers have decreasing morphological and phonological independence relative to independent forms. There are four types of dependent forms, *zero, clitic, bound, and weak forms*.

2.3.1 The Structure of Person Paradigms

The person paradigms found in world languages differ extensively. The high degree of variation is due to the fact that the paradigms also mark other grammatical distinctions in addition to person. The two most common grammatical distinctions made additionally to person are number and gender.

The existence of a number distinction is not universal, contrary to what has been supposed before. There are languages which exhibit no number oppositions in person paradigms, although it is highly exceptional. Number in person paradigms is typically indicated by suppletive forms, basically unsegmentable or portmanteau forms of affixation. If affixation occurs, the number affix is directly attached to person markers forming a unified unit. However, in languages where those markers can be separated it is controversial whether the person paradigm includes the number distinction.

Number distinctions in person markers are not only among singular and plural opposition. Many languages have also dual distinction which includes two participants. In the presence of a dual marker in a language, plural needs to denote at least three participants. Further number oppositions in person markers also exist in some languages, namely trial and paucal. Trials refer to groups of three participants, while paucals refers to several or a few.

There is a person hierarchy in virtually all the languages and the distribution of number within person paradigms is seen to conform to this hierarchy shown in (i).

(i) 1>2>3

One aspect of the relationship between person and number is the variety of number oppositions. The first person seems to display more variety than second and third persons. However, there are exceptional languages which do not conform to the person hierarchy.

In the next chapter, I will analyze the function of the two copulas *i-* and *ol-*

and conditions on the copula insertion to the structure.

CHAPTER 3

CONDITIONS ON THE COPULA INSERTION

This chapter studies the copula and some tense/aspect/modality markers which are identical in the two dialects, DD and ST. In this chapter, I give an account of the distribution of the copula and the reasons why it is realized in the structure.

The distribution of the copula in Turkish has received some attention in the literature to date. Kelepir (2003) presents an analysis in which the copula is inserted as a [+verbal] feature under the functional categories that dominate the VP. She proposes that the insertion of the copula is a result of the syntactic requirements of those functional categories, which appear to cluster around three different areas of the syntactic structure (Enç (2004) calls these three areas Zone 1, Zone 2 and Zone 3 with the Zone 1 heads being the lowest and Zone 3 heads the highest in the structure) as discussed in the previous chapter. I follow Kelepir (2003) in that the copula is a consequence of the requirement of functional categories, but contra her, I claim the following: (i) The copula is not a [+verbal] feature that is inserted into the functional nodes, but it heads a VP projection. I adopt the claims that there are two different copulas in Turkish (*i-* the 'high copula' and *ol-* the 'low copula' (Göksel, 2001, Kelepir, 2007) and that their positions are in a hierarchical relation. (ii) The copula is merged in order to satisfy the requirement of the functional categories which need a visible VP in their domains.

In Section 3.1, the main focus is on the previous studies on the position and the role of the copula in the syntactic structure and in Section 3.2, the combined predicate structures where the copula is inserted are analyzed. Finally, in Section,

3.3, I present the proposals in this thesis on the position and the function of the

copula.

3.1 The Copula in Turkish

In this section, I discuss whether the copula in Turkish heads a VP, or whether it is a

[+verbal] feature added on to another functional head proposed by Kelepir (2003). I

claim that it is the former[2]. My reason is based on the following:

A copula is inserted, even when the selectional requirement of T to take a

verbal complement is satisfied.

I also follow the claims (Göksel, 2001, Enç, 2004, Kelepir 2007) that

Turkish has two distinct copular verbs (*i-* and *ol-*). These are in a hierarchical

relation; the latter is always in a lower position than the former, and which copula is

inserted is the result of the selectional properties of the functional categories to which

they become complements. I will explain in Section 3.1.2 by which

tense/aspect/modality suffixes two copulas are selected.

The cliticized exponent of the copula *i-* in DD is the lengthening of the

vowel in the stem-final position to which the copula attaches, unlike in ST, where the

cliticized form of the copula *i-* is the palatal glide /y/. However, as in ST, when the

copula is cliticized between two consonants, it is dropped because of phonological

reasons. So, the copula *i-* has two clitic exponents in both dialects, 0 and lengthening

of the preceding vowel, which I will henceforth show as -: in DD, and 0 and /y/ in

ST. The exponent of the copula *ol-* is the same in both dialects. In (1a) the copula *i-*

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[2] Göksel (2001, 2003) suggests that *ol-* does not have a phrasal projection in embedded structures and
certain main clauses but it is a result of morphological requirements.

is shown and in (1b) and (1c) its other two exponents are shown for both dialects. The copula *ol-* is shown in (2)[3].

  (1) a. hasta i-miş -0[4]   ST/DD

     sick cop-evid-3sg

    'Apparently, he was sick.'

    b. hasta-y (ST) /-: (DD) -mış-0

     sick -cop-evid -3sg

    'Apparently he was/is sick.'

    c. gid-ecek -0-ti-0/ gid-cek-0-di-0   ST/DD

     go-fut-cop-past-3sg

    'He was going to go.'

  (2) hasta ol-malı-0   ST/DD

    sick cop-epist -3sg

    'He must be sick.'

3.1.1 The Function and Status of the Copula

It is claimed by Kelepir (2003) that the presence of a copula is not due to semantic requirements but to a syntactic need. She proposes that the copula exists in clauses whose predicates are not verbal forms. For example, in such clauses in English, the

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[3]As in Göksel (2001), I claim in Sağ (2013a) that there are two distinct verbs *ol-*, one of which is the copula, the other is the lexical verb meaning 'to become'. The copula *ol-* can only become a complement to the heads of the Zone 1 and 2 markers which are suggested by Enç (2004) and discussed in Section 3.1.2.2. However, *ol-* with the meaning 'to become' can be a complement to all heads of the three Zones. In this thesis, I only focus on the copula *ol-*.

[4] The usage of the exponent *i-* is old, but still acceptable. *-y-* is the cliticized form of *i-* realized between two consonants (see Kornfilt, 1996). In my thesis, for the purpose of clarity, I will use the form *i-* and not the other exponents (*-y-* and null) in the following sections. The third singular forms are null in Turkish and they are showed as '0'. See also the list of abbreviations part.

verb 'to be' has the role of an inflected verb, but it does not contribute any meaning to the clause as in (3) below.

(3) John is a doctor.

It might, at first, be argued that the copula does have a semantic role, that it has a stative meaning. However, I believe that the stative meaning comes from the predicate itself, denoting the property of the subject, not from the copula. So, following Kelepir, I propose that the copula satisfies not a semantic, but a syntactic requirement. In Section 3.3, I will extend the function of the copula and claim that it is a result of the requirement of the functional categories that require a visible VP in their domains.

The syntactic function of the copula is as follows: The copula 'to be' is present in English because English does not have a nominal person agreement paradigm which could mark the nominal predicate, but only a verbal one, as opposed to Turkish, which has both. So, in English the person agreement always needs to be marked on a verb, resulting in the forms *am/is/are*. In Turkish, there are different person paradigms. The *z* paradigm inflects the nominal elements like adjective, adverb, and noun phrases, and participles (fake verbal forms in Kornfilt, 1996, see also Kelepir, 2003, Enç 2004, Bayırlı, 2012), and the *k* paradigm inflects the verbal elements formed with past morpheme *-DI* and the conditional morpheme *-sA* (genuine verbal forms in Kornfilt, 1996)[5]. (For discussion, see Yu and Good, 2000). The person paradigm in DD will be discussed in Chapter 5.

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[5]First person plural examples from *k* and and *z* paradigms are shown in (i).

  (i) a. gel-iyor-uz   (participle+ *-uz* from *z* paradigm)
        come-imperf-1pl
        'We are coming.'

Therefore, following Kelepir (2003), I claim that the copula in Turkish is present in the clause satisfies a syntactic need. For example, the copula *i-* is semantically inactive in (4), it just fills a position where a verb is required. This way, it is similar to the function of 'be' in English.

(4) güzel i-di-m

   beautiful cop -past-1sg

   'I was beautiful.'

In (4), the requirement for the copula seems to be that the functional head T needs a verb in its accessible domain. So, the requirement of T is fulfilled by *i-*. In the next section, I will present the previous studies on the copula in Turkish.

3.1.2 Previous Views on the Copula

In this section, I return to the analyses of Kelepir (2003) and Enç (2004), and discuss them in more detail in order to show that the copula in Turkish heads a VP. Contra Kelepir, I claim that the copula is not a [+verbal] feature inserted into V or T head, but it is the head of a VP projection. This claim is based on the observation that a verbal complement does not always fulfill the requirement of T, and a copula insertion may still be required in the presence of a verbal element. I discuss Enç (2004) in order to show the places of the copulas *i-* and *ol-* in the structure.

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   b. gel-di-k   (verbal element+ *-k* from *k* paradigm)
      come-past-1pl
      'We came/have come.'

Based on the fact that there is a nominal person agreement paradigm besides a verbal one in Turkish I do not agree with Kornfilt (1996), Kelepir (2003) and Enç (2004) that there is a null copula between the participle *-iyor* and the person agreement marker *-uz* in (ia). Instead, I propose that the nominal person agreement paradigm directly attaches to a nominal element without a need for a copula between them.

3.1.2.1 Kelepir (2003): Copula as a Syntactic Feature

Kelepir proposes that the copula is not a verb, but a [+verbal] feature whose

phonological shape depends on the head where it is inserted and the features around

it. When this feature is inserted into a T head, the shape of it is *-y/0/i-*, but when it is

inserted in a V head it is realized as *ol-*. The basis of this proposal is the assumption

that the T head needs a verbal element to raise to T in order for a sentence to be

grammatical (Pollock, 1989, Miyagawa, 2001). So, within the framework of

Distributed Morphology (i.e. Halle and Marantz, 1993), in which the phonological

pieces can correspond to one syntactic head or feature and combinations of heads or

features, Kelepir proposes that the copula *i-* is the phonological realization of the

[+verbal] feature inserted into T head.[6] Participles are structures whose head cannot

raise to T, so a copula is inserted in the absence of a V head raising to T.

Although Kelepir's analysis explains the distribution of copulas in Turkish,

I believe that it should be investigated whether the copula is actually the insertion of

a [+verbal] feature into a syntactic head (T or V), or whether it is a syntactic head

projecting a phrase category. While I agree with Kelepir (2003) in that the insertion

of copula in Turkish is a result of syntactic requirements, I propose that the copula is

a functional head projecting a phrase category. The motivation for this claim is the

following: I show that a verbal complement does not always fulfill the requirement

of T, and there are cases when a copula insertion is required even in the presence of a

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[6] There is a theory internal problem here with respect to Distributed Morphology (Halle and Marantz, 1993). If we assume that the copula is the result of [+verbal] feature insertion into another functional head, the problem arises about the morphological realization of the copula. If the copula is not a syntactic head projecting a phrasal category, and it is inserted under the T node, we should expect just one vocabulary item insertion (phonological realization) to the relevant head and this vocabulary item should spell-out all the features of this head. However, when the [+verbal] feature is inserted into a T node that bears the feature [+past], we see two distinct vocabulary items. One is *i-* for the [+verbal] feature and the other is *-DI* for the [+past] feature, which are inserted under the same node in a fused way.

verbal complement. In order to show this, I will first discuss the Zones of verbal

domain in Turkish proposed by Enç (2004) in the following section.

3.1.2.2 Zones in the Functional Hierarchy (Enç, 2004)

As mentioned in Chapter 2, Enç (2004) discusses the verbal domain in Turkish and

proposes three different zones of functional categories and the morphemes

corresponding to them, summarized below:

Table 1 Verbal Zones adopted from Enç (2004)

Verb	< Zone 1	< Zone 2	< Zone 3
	permission/ability (-*A*) negation (-*mA*) ability/possibility (-*Abil*)	aorist (-*Ir/-Ar*) future (-*AcAK*) imperfective (-*Iyor*) necessity/epistemic (-*mAlI*) perfective (-*mIş*)	past (-*DI*) evidential (-*mIş*)
	+ VERBAL	**-VERBAL**	**+/- VERBAL**[7]
	take a lexical verb or nominal+*ol-* as complement	take a lexical verb or nominal+*ol-* as complement	take a lexical verb or nominal+ *i-* as complement

When one of the functional categories from Zone 1 is attached to a verb, the result is

still a verb, but when a functional category from Zone 2 is attached to the verb, the

result is not a verb anymore but a participle, namely a *nominal element*.

      According to Enç, since all the items in the Zones require attaching to a

verbal complement, when the complement is a nominal element or a participle, a

copula emerges between the functional category and its nominal complement. The

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[7] Zone 3 cannot be categorized as verbal or non-verbal because the predicates ending with -*DI* show verbal behavior, and -*mIş* shows nominal behavior as discussed in Bayırlı (2012).

copula *ol-* is seen if this category is from Zone 1 or 2, and the copula *i-* is seen when it is from Zone 3. This is summarized in Table 1.[8]

In Kornfilt (1996), the predicates formed with conditional *-sA* and past *-DI* are called *genuine verbal forms*; namely, they are different from the nominal predicates and the ones ending with a category from Zone 2 (see Özsoy, 2001). The former get *k* paradigm person agreement markers and the latter get *z* paradigm person agreement markers, which appear on non-verbal items. Bayırlı (2012) argues that the predicates ending with conditional *-sA* and past *-DI* are verbal because they show similar grammatical behavior as bare verbs under coordination; namely, they cannot be coordinated whereas the nominal predicates can be coordinated as shown in (5).[9]

(5) a.*[oku-du ve anla-dı]-n   attempted coordination of categories headed

     read-past and understand-past-2sg   by past tense

     Intended meaning: 'You read and understood it.'

     b. *[oku-sa ve anla-sa]-n   attempted coordination of categories headed

     read-cond and understand-cond-2sg   by conditional

     Intended meaning: 'If you read and understand it.'

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[8] For the conditional *-sA,* Enç proposes that it does not belong to I^0 categories, but should be as high as C^0 in the structure. However, I do not agree with this and I argue that the conditional *-sA* does not belong to just one, but two different positions in the structure, one is C^0 as Enç proposes and the other is between Zone 2 and Zone 3.

[9] The nominal predicates can be coordinated as opposed to verbal ones. The examples are shown in (i).
     (i)   a.[güzel ve iyi] i-di-0   (coordination of adjectives)
         beautiful and good cop-past-3sg
         'She was beatuiful and good.'
       b. [gel-miş ve git-miş]-sin   (coordination of participles)
         come-evid and go-evid-2sg
         'Apparently, you came and left.'

c.* [oku ve anla]-dı-m   attempted coordination of bare verbs

read and understand-past-1sg

Intended meaning: 'I read and understood it.'

Following Kornfilt (1996), Özsoy (2001), and Bayırlı (2012), I will take the

predicates ending with conditional *-sA* and past *-DI* to have verbal nature.

In the following section, I return to Kelepir's analysis that the copula is the

realization of the [+verbal] feature inserted under T or V heads, which is discussed in

Section 3.1.2.1.

3.1.3 The Nature of Tense and Conditional

Although the predicates formed with past *-DI* (6a) and conditional *-sA* (6b) have

verbal nature, interestingly these cannot be a complement to T head. Instead, a

copula is required between them, same as in the case where T head takes a nominal

complement (a participle) and a copula is inserted as shown in (6c).

(6) a. gel-se i-di-n   (verbal complement+copula+Zone 3)

come-cond cop-past-2sg

'If you came/had come.'

b. gel-di i-di-n[10]   (verbal complement+copula+Zone 3)

come-past cop-past-2sg

'It was the case that you came.'

---

[10] Although this structure sounds marginal to some speakers of ST, it is quite common among many speakers and in DD.

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c. gel-iyor i-di-n   (participle+copula+Zone 3)

   come-imperf cop-past-2sg

   'You were coming.'

In (6a) there is a predicate formed with the attachment of the conditional to the verb *gel-*, and the result of this has verbal nature. Interestingly, this verbal element cannot be a complement to the higher past T. The sentence is only grammatical with the insertion of the copula between T and the predicate formed with conditional *-sA*. This is quite similar to what happens in (6c), where the copula is inserted between T and its nominal complement. What happens in (6b) is also similar to (6a); namely, the result of the predicate formed with the attachment of past to the verb *gel-* has verbal nature, but it cannot be a complement to the higher past T.

According to Kelepir (2003), T requires a verbal element for the sentence to be grammatical, and when its complement is a nominal element which cannot fulfill this requirement, a copula which has a [+verbal] feature is inserted under T head. So, in light of the data in (6a) and (6b), the crucial question arising at this point is why predicates formed with conditional *-sA* and past *-DI* (which, according to Kornfilt (1996) and Bayırlı (2012) have verbal nature) cannot be complements to T head which needs a verbal element.

There are at least two possible answers to this question. One is that the predicates formed with these suffixes are not actually verbal, so T cannot take them as the complement. However, this answer would leave another question unanswered: Why do they behave like bare verbs, as shown in Bayırlı (2012)? Another possibility would be that they have a verbal nature but involve more structure than VP. I argue that the structure that T takes as its complement should include a VP and this VP

should be visible with respect to T. For the verbal structures that T cannot take as its complement in (6a) and (6b), I propose that they are opaque and make the VP inside the structure invisible to T (See Section 3.3 for more details). In other words, for a sentence to be grammatical, a verbal element (or feature) is not sufficient for the requirement of T head, but a visible VP needs to be in the domain of T. At this point let me first discuss the predicate structures in Turkish in order to explain what the existence of a (in)visible VP in the structure means.

3.2 Predicate Structures in Turkish

T can take an AspP as its complement and no copula attaches between T and AspP as in (7).

(7)   gel-di-m

come-perf.past.indic-1sg

'I came.'

I claim that (7) has a syntactic structure which includes the perfective aspect (Asp), past tense (T), and indicative mood (M) heads in a hierarchical relation, and the morpheme *-DI* corresponds to all the three functional heads, following Cinque (1999), Starke (2001, 2004) and Chomsky's Uniformity Principle (2001) that there is a universal functional sequence. This is shown in (8). The reason why I claim that (7) includes Asp and M heads besides the T head is that it has a perfective, indicative and past reading and it contrasts with (9) below.

(8)　　　　　　　　MP
　　　　　　　　／　＼
　　　　　　　TP　　M [indicative]
　　　　　　／　＼
　　　AspP　　T [past]
　　　／　＼
　VP　　Asp [perfective]

realized by *-DI*

(9) a. gel-miş-im

　　come-perf.past.evid-1sg

　　'Apparently, I came.'

b.　　　　　　　MP
　　　　　　　／　＼
　　　　　　TP　　M [evidential]
　　　　　／　＼
　　AspP　　T[past]
　　／　＼
VP　　Asp [perfective]

realized by *-mIş*
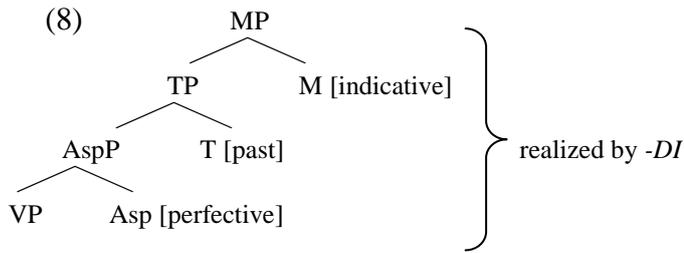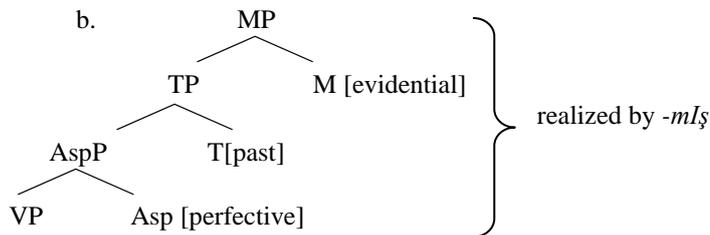
(9b), which is the representation of (9a), has the same structure as (8) except that the

feature of M is [evidential] in (9). So, (8) needs to have an Asp head and a T head,

because it denotes a perfective past event, and an M head which differentiates it from

the structure in (9), because it denotes an indicative mood, not evidential. Similarly,

(9) needs to have an Asp head and a T head, because it denotes a perfective past

event, and an M head because it denotes an evidential event. I argue that the

structures in (8) and (9) are single predicates. In the following section, I will present

an analysis of the combined predicate structures, where the copula insertion occurs.

3.2.1 Combined Predicate Structures

I follow Svenonius (2008) in that "…any predicate that consists of more than one

piece is complex, and if we include pieces which are not phonologically overt, then

possibly all predicates are complex (cf. Hale and Keyser 1997)" (p.47).

Adopting Svenonius's (2008) terminology on complex predicate structures, I propose that a complex predicate can be composed of two complex predicates;[11] the first is low and the second is high. Svenonius (2008) argues for the importance of a hierarchy of functional categories in complex predicate variation.

> Classic examples of complex predicate constructions include those where the higher predicate describes an event and the lower one describes a resultant state (resultative), a concomitant situation (depictive), a subsequent event (consequential), or an intended objective (purposive) of the higher one (Svenonius, 2008: 49).

For the purposes of this thesis, I only adopt Svenonius's terminology as high and low predicates to distinguish between the predicate under and above the copula. The relation between the resultative states and the predicate types proposed here for the structures which describe an event needs further research.

The structure in (10) is a combined predicate which has two parts. The hierarchically lower part under the copula is the low predicate and the higher part is the high predicate.

(10) gel-miş i-di-m[12]

    come-perf cop-past.indic-1sg

    'I was the case that I came.'

The complex structure in (10) consists of two predicates because a perfective-past event is carried to an earlier past. The difference between (7) repeated here as (11) and (10) is that the former expresses a perfective past event while the latter expresses an earlier perfective past event.

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[11] Complex predicate structures can consist of more than two predicates, where more than one copula insertion can be seen. I will not discuss those structures in my thesis and leave them for further research.

[12] In Section 3.2.4, I propose that in the low predicate there is also TP and MP above AspP.

(11) gel-di-m

    come-perf.past.indic-1sg

    'I came.'

A crucial question to be answered is the following: When and on which conditions do functional categories create higher predicates as a result of which the copula is merged? In order to discuss an answer for this question I want to show the difference between (11) and (12).

(12) gel-iyor i-di-m

    come-imperf cop-past.indic-1sg

    'I was coming.'

The structure in (11) has an Asp with [perfective] feature, T with [past] feature and M with [indicative] feature, and there is no copula in the structure. However, the one in (12) includes an Asp with [imperfective] feature, T with [past] feature and M with [indicative] feature, but as opposed to the former, there is a high copula between Asp and T. Why are those structures different in terms of including copula or not although their difference is just in the feature the Asp bears; [perfective] or [imperfective]? If we want to maintain the analysis that a copula only emerges when we see the combination of two predicates, then (11) must be a single predicate and (12) must be the combination of two predicates. How can we derive this difference?

I argue that two predicates can combine when the T value of the predicate, which is interpreted as default relative to Asp, needs to be modified or when a past event has to be carried into earlier past. I argue that in Turkish, perfective Asp occurs

by default with past T and the imperfective Asp occurs by default with present T interpretations (see Comrie, 1976 for default interpretations of T). (11) is a single predicate because the T of the structure is interpreted as past by default and thus the 'default value' of T does not have to be modified. On the other hand, in (12) the T value relative to imperfective Asp is present as a default value, but the T in the higher predicate modifies it as past. That is why we see different predicate structures in (11) and (12). Below, I discuss how the notion of 'default value of T' relative to perfective or imperfective AspP could be defined.

3.2.2 'Default Value' of T

What would define the default interpretation of T in structures with imperfective and perfective Aspects? The traditional view about Viewpoint Aspect differentiates perfective and imperfective as the following (e.g., Comrie, 1976), similarly Smith (1997)):

Perfective: "looking at the event from the outside"

Imperfective: "looking at the event from the inside"

Following Comrie (1976), I suggest that the difference between the default interpretation relative to the two aspects results from this. Because perfective means looking at the event from the outside, it should denote a finished/completed event. Namely, perfective aspect leads us to see the event as a whole, so by default, T should be interpreted as past in perfective events. However, because imperfective means looking at the event from the inside and it can only denote an event which has

an internal structure, T in imperfective events should be interpreted as present by default. I argue that changing the value of T which results in a non-default value combination is possible by combining two predicate structures, where T, with the non-default specification, is repeated in the high predicate.

Evidence for the interpretation of T in structures with perfective and imperfective aspects comes from other languages as well. Welsh dialects have different systems in the past tense, but the existence of the past denotation with the perfective structure is seen in all of them. Another language which can be shown as evidence is Arabic; when perfective and imperfective structures contain no overt specification of time reference, for example no temporal adverbs, perfective is interpreted with the past meaning and the imperfective is interpreted with the present meaning as shown in (13) below (Comrie, 1976).

(13) a. jalasu (Pfv.)   ʕala 'l- babi.

       they-sat-down at   the door

       'They sat down at the door.'

   b. ʔallahu yaʕlamu (Imperf) bi - ma taʕmaluna (Imperf)

       god   he-know   about what you-do

       'God knows what you are doing.'   (Comrie, 1976)

As Comrie (1976) states, an imperfective past event is formed by the combination of the perfective and imperfective in Arabic. For example, Comrie discusses *kana yaktubu* 'he was writing, he used to write' as the following. This form can be literally glossed as 'it happened (perf) that he be writing (Imperf)', and it is interpreted with

past, assigned to *yaktubu* because *kana*, which is in the perfective form, has already specified the tense as past.[13]

In the next section, I will show other ways of combining two predicates, which is by altering the default modality interpretation of a structure.

3.2.3 Other Ways of Combining Complex Predicates: Altering the Modality Value

Modifying T value which is interpreted as default relative to Asp of a complex predicate is not the only reason for combining two complex predicates, the result of which is the occurrence of a copula in the structure. A default feature value in a complex predicate that might need to be modified is not only T, but can also be a modality value (indicative or evidential). For example, in (14) an imperfective event appearing with a default present tense value interpretation is in the low predicate and it combines with an evidential M head which is in the high predicate, resulting in a combination of two complex predicates.

(14) gel-iyor i-miş-0

come-imperf.pres cop-pres/past/fut.evid-3sg

'Apparently, he is coming/was coming/will come.'

The tense reference of (14) is not specific, because it is ambiguous among a present, a past or a future event. Crucially, when this sentence denotes a present event, the T

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[13] Another piece of evidence comes from many West African languages such as Yoruba and Igbo, which Comrie describes as 'tenseless languages'. They do not have specific markers of past vs. present tense, but markers of aspect. In those languages the imperfective is interpreted as referring to the present, whereas the perfective has the past interpretation in the absence of a specific time reference such as temporal adverbials (Comrie, 1976). Kelepir (2007) also observes a similar case in embedded structures of Turkish.

value interpreted relative to an imperfective event is the same as the tense reference of the whole predicate. So, it means that the T value which is interpreted as default in the predicate with imperfective Asp is not modified but still we see the combination of two complex predicate structures resulting in the insertion of the copula, which implies that there must be another default value interpretation that is changed in the structure.

I argue that this default value is the M value, which is interpreted as indicative relative to the imperfective aspect. I claim it to be so because of the fact that relative to the imperfective in Turkish, by default we interpret T as the present tense and M as the indicative modality as shown in (15). The sentence in (15) can refer to future when a temporal adverb is added such as *yarın* 'tomorrow'. However, based on Comrie (1976), the default interpretation of a value in a sentence occurs in the absence of any temporal adverbials, so I propose that the T value is interpreted as present by default in (15).[14]

(15) gel-iyor-sun

come-imperf.pres.indic-2sg

'You are coming.'

When the M value, which is interpreted as indicative with an imperfective event, is modified as a non-default one (evidential) as in (14), the combination of two complex predicates occurs where an M head is repeated as a part of the high

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[14] Note that this poses a problem for the proposal that a default value of a predicate can only be modified by addition of a higher predicate. In (15), with the addition of *yarın* to the structure, the default value of the predicate is modified but we do not see any combination of two predicates. I leave this issue for further research.

predicate for the purpose of modifying the default M value interpretation in the low predicate. This results in the insertion of the copula.

With the perfective, I propose that we cannot determine the M value interpretation as default -indicative or evidential- because both modality interpretations are represented overtly and separately in a perfective-past event as shown in (16) and (17) and they do not result in the combination of two predicates as opposed to (14). So, I propose that with a perfective event, the M value is not interpreted as default, but it can be specified as indicative or evidential, as opposed to an imperfective event where the M value is specified as indicative by default.

    (16) gel-di-n

          come-perf.past.indic-2sg

          'You came.'

    (17) gel-miş-sin

          come-perf.past.evid-2sg

          'Apparently, you came.'

In the next section, I will propose that a non-default value specified in the low predicate cannot be modified in the high predicate, as opposed to the default value interpretations.

3.2.4 Can a Non-default Value Be Modified by a High Predicate?

Based on the observations above, I propose that only a default value interpretation can be modified by means of combination of two complex predicates, not non-

default values. Namely, carrying a perfective-past-indicative event where the indicative value is not interpreted as default to an earlier past and evidential event as in (18) should be impossible as opposed to (14), where an imperfective-present-indicative event, whose indicative value is interpreted by default, can be carried to an earlier past-evidential event. In fact this is the case.

    (18)   *gel-di i-miş-0

         come-perf.past.indic cop-past.evid-3sg

        'Intended meaning: Apparently, it was apparently the case that he came.'

However, (19) seems grammatical in an unexpected way, where a perfective-past-evidential event, whose evidential value is not interpreted by default, is carried to an earlier past-indicative event.

    (19) gel-miş i-di-0

        come-perf.past.evid cop-past.indic-3sg

        'It was the case that you apparently came.'

I argue that the reason why (19) is grammatical as opposed to (18) is an illusion of morphological insertion. (19) corresponds to two different structures one of which is grammatical while the other is ungrammatical.

       The first structure, which is grammatical, is such that a perfective-past event where the modality value is not specified is carried to an earlier past-indicative (20a) or to an earlier past-evidential event (20b).

(20)   a. gel-miş i-di-n

    come-perf.past cop-past.indic-2sg

    'It was the case that you came.'

    b. gel-miş i-miş-sin

    come-perf.past cop-past.evid-2sg

    'It was apparently the case that you came.'

The non-specification of modality (evidential/indicative) is possible for a perfective and past event in the low predicate, because this event is not interpreted with a specific indicative or evidential modality by default as opposed to imperfective events discussed in the section above. Leaving a perfective-past event unspecified for M is only possible in the low part of the combination of two predicates because every statement in Turkish has either an indicative or evidential Mood interpretation, implying that it should ultimately be specified for modality, which is done on the high predicate. Otherwise, a perfective-past event needs to be specified for M (when it is a single predicate). Note that I do not say that the M specification is only done on the high predicate in this case. What I claim here is that this specification can be done on both low and high predicates of a complex predicate or only on the high predicate, but this results in different meanings.[15] At first glance, this may seem to be contrary to the universality of the sequence of functional heads; however, this is not

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[15] When the M specification is done in both low and high predicates, the meaning changes compared to the case where M specification is done only on the high predicate as in (20). For example, in a complex predicate where a perfective-past-evidential event is carried to an earlier past-evidential event, the evidential meaning in the low predicate may be interpreted by some speakers of Turkish (including me). This issue needs to be further investigated, though. The phonological realization of such a structure is shown in (i), which is the same as (20b) with the meaning difference. In (20b), the evidential reading is only taken in the high predicate. We see the combined predicate structure here because a past event is expressed in earlier past.

   (i)   gel-miş i-miş-sin
      come-perf.past.evid cop-past-evid-2sg
      'It was apparently the case that you apparently came.'

the case because M specification is always done above Asp and T in both low and high predicates.

In the case where a perfective-past event is carried to an earlier past-indicative event, the phonological result we get is (20a), the same as (19), giving a grammatical sentence. I will discuss why the insertion of *-DI* is impossible in the low predicate in (20a) and (20b) in Section 4.1.1.

However, in a complex predicate consisting of a low predicate with imperfective Asp, the M node always needs to be merged in the low predicate as well as the high predicate because by default the predicates with imperfective Asp need to be interpreted as indicative. However, because a modification in this default value can be done on the M head of the higher predicate, the M projection also needs to be done there. So I assume that the specification of M in this case should be done in both low (showing the default value) and high predicates.

The second structure that (19) corresponds to is such that a perfective-past event specified for evidential (non-default) is carried to an earlier past-indicative event, and this is ungrammatical as shown in (21). It would result in an ungrammatical structure because the value of M (indicative or evidential) in a perfective event is not interpreted as default (low predicate), and trying to modify a non-default value by combination of two complex predicates would result in a semantic incompatibility. In other words, the structure with an M value which is not interpreted as default cannot be carried to an earlier past event with a different M value as opposed to the case with the imperfective in (14).[16]

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[16] If we want to express an imperfective event, whose default values I discuss above are present tense and indicative modality, in the future, the result is again a combination of two complex predicates as shown in (i). We see the copula *ol-* here because *-AcAk* is a Zone 2 marker which selects for the copula *ol-*.

  (i) gel-iyor ol-acak-0
       come-imperf.pres.indic cop -fut.indic-3sg

(21) *gel-miş i-di-n

   come-perf.past.evid. cop-past-indic-2sg

   Intended meaning: 'It was the case that apparently you came.'

I assume that the low predicates in a complex predicate should include the T or M nodes which are interpreted with the default values relative to Asp if they have any, even if they are modified as a different value via complex predication. I make this assumption based on the definitions for perfective and imperfective in Comrie (1976). For example, an imperfective-past event is defined as 'present in the past.' Although I do not have enough evidence to support this other than adopting Comrie's definitions, for the purposes of this thesis I assume that the low predicate should include the default values even if they are modified in the high predicate.

3.3 Why is the Copula Inserted?

Based on the proposals and assumptions made so far, it is observed that the copula *i-* is always merged as a complement of the TP in the high predicate. So, the question is why the copula is inserted as a complement of the TP repeated in the higher predicate although it is not inserted when TP takes an AspP as its complement in the low predicate (see Section 3.2). In order to answer this question, I want to summarize below what categories can be the complements of TP.

   TP can take the following complements directly without a need for a copula insertion:

'He will be coming.'

(i) VP+AspP as in (22):

 (22)   a. gel-di-m

            come-perf.past.indic-1sg

         'I came.'

       b. gel-miş-im

          come-perf.past.evid-1sg

         'Apparently, I came.'

      c. gel-iyor-um

         come-imperf.pres.indic.1sg

         'I am coming.'

(ii) VP+ Zone 1 categories+ AspP as in (23):

 (23) a. gel-ebil-di-m

         come-abil-perf.past.indic-1sg

        'I could come.'

      b. gel-me-di-m

         come-neg-perf.past.indic-1sg

       'I didn't come.'

T cannot take the following complements, but the copula *i-* is required between

them:

      (i)   nominal elements as in (24):

(24) a. *güzel-di-m   (No copula exists even in null form.)

      beautiful-past.indic-1sg

      Intended meaning: 'I was beautiful.'

  b. güzel i-di-m

     beautiful cop-past.indic.1sg

    'I was beautiful.'

  (ii) TP as in (25):

(25) a.*gel-miş-di-m   (No copula exists even in null form.)

      come-per.past-past.indic-1sg

      Intended meaning: 'It was the case that I came.'

  b. gel-miş i-di-m[17]

     come-perf.past cop-past.indic.1sg

    'It was the case that I came.'

  (iii) TP+MP as in (26):

(26) a. *gel-iyor-muş-um

       come-imperf.pres.indic-pres/past/fut.evid-1sg

       Intended meaning: 'Apparently, I am coming/I was coming/ I will

       come.'

b. gel-iyor i-miş-im

come-imperf.pres.indic cop-pres/past/fut.evid-1sg

'Apparently, I am coming/I was coming/ I will come.'

Based on these observations, it is seen that T can either take an AspP as in (22) and (23) as the glosses illustrate, or the copula as its complement as in (24b), (25b) and (26b). Why can T take an AspP as its complement although it cannot take a nominal element, TP and MP, which require the insertion of the copula between them?

I argue that T requires a VP in its domain, and it seems that Zone 1 categories and AspP are transparent in some relevant sense, so they make VP in the lower position visible to T merged above them. However, as soon as TP is merged (even if MP is merged above TP), this structure becomes opaque, not allowing the VP in the lowest position to be visible by the TP in the higher predicate, which is required for the semantic reasons mentioned in Section 3.2.1 and 3.2.2. In that case, in order to satisfy the visible VP requirement of T in its domain, the copula *i-* is inserted in the structure as a complement to T (cf. Sağ, 2013a, 2013b).

I argue that the copula projects a VP, rather than being a [+verbal] element inserted at T node, contrary to Kelepir (2003), because even in the existence of a verbal complement, the copula is inserted as in (27). Remember that the predicates ending with *-DI* and *-sA* are verbal according to Kornfilt (1996), Özsoy (2001) and Bayırlı (2012) (see Section 3.1.2.2).

(27) a. gel-di i-di-m

come-perf.past.indic. cop-past.indic-1sg

'It was the case that I came.'

b. gel-se i-di-m

   come-cond cop-past.indic-1sg

   'If I came/ If I had come.'

Why are Zone 1 categories and AspP transparent whereas TP and MP are not? The answer that I suggest for the transparency of the former is as follows: A structure with a VP+ Zone 1 category alone do not form a predicate that can surface as such, hence results in an ungrammatical structure, so it must be combined with a functional category to be able to form a grammatical predicate (except in imperative forms) (Enç, 2004). I propose that when VP or VP+Zone 1 categories become complement to AspP they still cannot form a grammatical structure because the structures with Asp have default T value interpretations, so TP needs to be merged above an AspP in any case (see Section 3.2.2). Namely, the structures with an AspP and VP+Zone 1 require further categories (TP and/or MP) to form a grammatical structure. Once these categories are merged the structures with AspP and VP+Zone 1 become grammatical. So, being transparent or opaque might be related to the ability of the categories to result in grammatical structures.

The copula *ol-* has the same function as the copula *i-*, except that the former satisfies a visible VP requirement of the Aspect, Modality (with the ability, possibility, permission, necessity and epistemic interpretations) and Negation which correspond to the Zone 1 and 2 and which are lower than T category. For example, the structure in (28) where the necessity modality is merged above a structure without a visible VP, the copula *ol-* is merged.

(28) gel-iyor ol-malı-sın

come-imperf.pres.indic cop-nec-2sg

'You must be coming.'

The structure under the copula is opaque because when TP is merged, the structure becomes a grammatical predicate as mentioned above for the case of the copula *i-*. Because this structure is opaque (even after the merge of MP above TP), the VP in the lowest position is invisible to MP repeated in the higher predicate. So, the copula *ol-* is merged to satisfy the requirement of MP to have a visible VP in its accessible domain. The copula *ol-* is merged (instead of the copula *i-*) because it is selected by the Zone 1 and 2 categories and the necessity modality is in Zone 2 (Enç, 2004).

3.3.1 Being Nominal or Verbal

The insertion of the copula is not related to whether T takes a nominal or verbal predicate or not because the predicates which have AspP+TP+MP can be either verbal or nominal as shown in (29). Namely, when the higher T takes the predicates which have the structure AspP+TP+MP as its complement, the copula is always merged between them regardless of its complement being nominal or verbal.

(29) a. gel-di i-di-m   (a verbal complement of the copula)

come-perf.past.indic. cop-past.indic-1sg

'It was the case that I came.'

b. gel-iyor i-di-m   (a nominal complement of the copula)

   come-imperf.pres.indic. cop-past.indic-1sg

   'I was coming.'

The crucial question to be asked at this point is the following: How do we know whether a predicate is nominal or verbal? Aspect categories in Zone 2 are accepted as participle forms in Enç (2004) (aspect categories are in Zone 2 and the predicates ending with a Zone 2 category is nominal) and Kornfilt (1996) (fake verbal forms). However, as can be seen from (29), both predicates which become complements to the copula have AspP inside their structure, the only difference between them being that in (29a) it is perfective aspect and in (29b) it is imperfective aspect. So can we say that the structures with perfective aspect are verbal but the structures with imperfective aspect are nominal? As an answer to this question, I suggest that we cannot determine this because a structure with perfective aspect can also be nominal as shown in (30).

(30) gel-miş i-miş-0[18]

   come-perf.past.evid. cop-past.evid-3sg

   'It was apparently the case that he apparently came.'

The low predicate structure in (30), which includes a perfective Asp, past T and evidential M have the same structure with the low predicate in (29a) except that in the latter the M value is indicative.

---

[18] See footnote 15 where I explain that this structure is possible.

One can suggest that the structures with indicative M are verbal, but the structures with evidential M are nominal. This cannot be true because when the low predicate has imperfective Asp, present T and indicative M, it is nominal as shown in (29b).

As a final note, the predicate whose functional layer is realized by *-mIş* is still nominal even when this structure does not include the evidential M as shown in (31).

(31) gel-miş i-di-m

come-perf.past cop-past.indic-1sg

'I was the case that I came.'

Based on the structures that I propose for the verbal domain which include TAM categories in Turkish, I argue that whether a predicate is nominal or verbal cannot be determined by the abstract functional categories inside its structure. Instead, it is determined by which lexical item is inserted to the structure. For example, the structures where   *-DI* is inserted are verbal; however, the structures where *-mIş* or *-Iyor* are inserted are nominal. Namely, whether a predicate is verbal or nominal is determined after the insertion of the lexical items into the structure. This is possible by the Nano-syntactic framework where the spell-out is taken to be cyclic and bottom-up (Starke, 2009). This means that after each syntactic feature is merged in the structure, a new spell-out is triggered. So, in the syntactic structure, the lexical items are also visible and whether a structure is verbal or nominal can be determined by looking at the lexical item inserted into the structure. This implies that the lexical items are stored in the lexicon with the feature [+/-verbal].

The position of the copula *i-* cannot be as low as Zone 1 and 2. This is supported by the observation that when a functional category from Zone 2 needs to take a nominal complement, the copula *ol-* emerges as shown in (32) because there is no VP in any way in the structure (see also Kelepir, 2007, 2012 and Enç 2004)[19].

   (32) a. hasta ol-malı-0

         sick cop-epist-3sg

         'He must be sick.'

       b.* hasta i-meli-0

         sick cop-epist-3sg

         Intended meaning: 'He must be sick.'

   (i) *i-*:

       a. The copula *i-* can only be a complement to Zone 3 which is always

           inserted to T, as shown in (33).

   (33) a. hasta i-di-n   *i-* preceding Zone 3 (complement of *-DI*)

         sick cop-past-2sg

         'You were sick.'

---

[19] The examples similar to the ones in this section are also discussed in Kelepir (2007, 2012).

b. gel-meli i-miş-0   *i*- preceding Zone 3 (complement of *-mIş*)

  come-necess cop-pres.evid-3sg

  'Apparently, he must come.'

c. *hasta i-meli-0   *i*- preceding Zone 2 ((complement of *-mAlI*)

  sick cop-epist-3sg

  Intended meaning: 'He must be sick.'

This suggests that the position of the copula *i*- is lower than Zone 3, but above Zone 2 (as discussed in Kelepir 2007, 2012).

b. However, the copula *i*- can also appear between a predicate formed with a Zone 3 category and a higher predicate which starts with another Zone 3 category as in (34).[20]

(34) gel-di i-di-0[21]

    come-perf.past.indic cop-past.indic-3sg

    'It was the case that he came.'

This shows that the copula *i*- is not always before Zone 3, but it appears when Zone 3 categories need a visible VP in their domains.

(ii) *ol*-:

---

[20] This issue is also discussed in Enç (2004). For further details see this study.

[21] Note that the lower *-DI* is not considered to be a Zone 3 category in Enç (2004) and Kelepir (2012).

a. The copula *ol-* can only be a complement to Zone 1 and Zone 2 (AspP, Modality with necessity and epistemic values), but not Zone 3 as in (35) (see also Kelepir, 2003, Enç, 2004).

(35) a. hasta ol-abil-ir-0   *ol-* preceding Zone 1

    sick cop-poss-aorist.pres-3sg

    'He can be sick.'

    b. hasta ol-malı-0   *ol-* preceding Zone 2

    sick cop-epist-3sg

    'He must be sick.'

    c. *hasta ol-du-3sg[22]   *ol-* preceding Zone 3

    sick cop-past.indic-3sg

    Intended meaning: 'He was sick.'

According to the data in (35) it seems that the place of the copula *ol-* is below Zones 1 and 2.

b. However, note that it can also appear between a predicate formed with a Zone 2 category and a higher predicate which starts with another Zone 2 category as in (36), which suggests that it can be above a Zone 2 category (see also Enç, 2004).

---

[22] This sentence is grammatical when the verb *ol-* is not the copula but the regular verb *ol-* meaning 'to become'. See Sağ (2013a).

(36)   gel-iyor ol-acak-sın

    come-imperf cop -fut-2sg

  'You will be coming.'

This shows that the place of the copula *ol-* is not always below the categories in Zone 1 and Zone 2, but it appears when those categories need a visible VP in their domains.

    Based on this, I suggest, following Kelepir 2003 and Enç 2004, that the place of the copula *i-* is higher than the place of the copula *ol-* which is further supported by the observation that *i-* cannot be in a lower position than *ol-* when they occur in the same sentence as in (37).

(37)   a. hasta ol-malı i-miş-0

    sick cop-epist cop-pres.evid-3sg

   'Apparently, he must be sick.'

  b. *hasta i-meli ol-muş-0

    sick cop-epist cop-pres.evid-3sg

   Intended meaning: 'Apparently, he must be sick.

Therefore, I claim following Göksel (2001), Kelepir (2003) and Enç (2004) that the copulas *ol-* and *i-* are in a hierarchical relation; the former is in a lower position than the latter. However, it would be wrong to claim that the copula *ol-* is always below Zone 1 and Zone 2 and the copula *i-* is always below Zone 3 but above Zone 2 based on the observation presented in (34) and (36). So, I claim that which copula is inserted is the result of the selectional properties of the functional categories to which

they become complements. Tense category which corresponds to Zone 3 choose the copula *i-* and the Aspect, Modality (with the ability, possibility, permission, necessity and epistemic interpretations) and Negation which correspond to the Zone 1 and 2 choose the copula *ol-* when they need a visible VP in their domains, which results in two different and hierarchical positions for the two copulas because Zone 3 is hierarchically higher than Zone 1 and 2.

In summary, I follow the claim that there are two distinct copular verbs, whose phonological shapes are *i-* and *ol-* respectively. Following Kelepir (2007), I will call the former one the 'high copula' and the latter one the 'low copula' based on their positions in the syntactic structure (Sağ, 2013a, Sağ, 2013b, Sağ, in press). I claim that these are V heads which project a VP, spelled out by *i-* and *ol-*.

3.4 Summary

In summary, in this chapter I argued that the functional categories require a visible VP in their domain and the copula, which projects a VP, satisfies this requirement in the absence of a visible VP in the structure. The copula *i-* is merged when this is required by T category which corresponds to Zone 3, whereas the copula *ol-* is merged to satisfy the requirement of functional categories in Zones 1 and 2 (the Aspect, Modality with the ability, possibility, permission, necessity and epistemic interpretations and Negation). This results in two different and hierarchical positions for the two copulas because Zone 3 is hierarchically higher than Zone 1 and 2 (Göksel, 2001, Kelepir, 2003, Enç, 2004).

I also analyzed the combined predicate structures, which occurs if a default feature combination needs to be modified by an additional functional head, or a past

event needs to be carried to an earlier past. When a functional head like T is at the edge of a higher predicate, it requires a visible VP in its domain, and the high copula *i-* is inserted in order to satisfy this requirement.

I claim that the structures with perfective aspect have past tense interpretation and the ones with the imperfective aspect have present tense interpretation by default following Comrie (1976). The modification in the default tense value interpretation is done by further addition of the functional category of T to the structure in a higher predicate, which requires a copula. However, modifying a default T value interpretation with respect to Asp in a predicate is not the only way for the merge of higher predicate. The structures with imperfective aspect have indicative modality interpretation by default and when it needs to be modified as evidential, then a higher predicate is merged. The structures with perfective aspect are claimed not to be interpreted with a default modality value, though.

In Chapter 4, I will discuss the phonological realization (insertion of phonological pieces to the structure spelled-out by the syntax) of Turkish verbal domain based on two realizational theories Nano-syntax (i.e. Starke, 2009) and Distributed Morphology (i.e. Halle and Marantz, 1993, 1994).

CHAPTER 4

THE PHONOLOGICAL REALIZATION OF THE TURKISH VERBAL DOMAIN

This chapter presents a novel look at the morpho-syntax of the Turkish verbal

domain, in light of two realizational theories, Distributed Morphology (Halle and

Marantz, 1993, Embick, 1995, Harley, 1994, among others) and Nano-syntax

(Starke, 2009, Caha, 2009, Taraldsen and Medova, 2007, among others) which to my

knowledge have not been applied to Turkish before. I discuss the application of the

spell-out mechanism in the functional structure of complex verbal predication in

Turkish, based on Nano-syntactic and Distributed Morphological principles.

I couch my analysis in the Nano-syntactic theory, where lexical entries are

represented in the lexicon as tree structures (lexical trees) and are inserted into the

syntactic structure in accordance with the Superset Principle (Starke, 2009). Based

on the Superset Principle, a lexical tree can spell-out a syntactic structure if it

matches either the superset or all of the syntactic structure. I use the Nano-syntactic

model enriched by the recent proposal in Starke (2011), Caha and Pantcheva (2012),

which allows for the appearance of a single morpheme when more than one are

expected. In the process, I present arguments that an analysis along the lines of

Distributed Morphology does not account for the Turkish data.

In 4.1, I will present a Nano-syntactic analysis and show how the Superset

Principle and pointers can expand the spell-out and phonological realization of the

Turkish data and in Section 4.2 I will present a Distributed Morphological analysis

showing that the Subset Principle, the main tenet of DM, remains insufficient in

accounting for this.

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4.1 A Nano-syntactic Analysis of Turkish Morphology

4.1.1 Spell-out of the Turkish Verbal Domain

In this section, I will deal with the spell-out of Asp, T and M (indicative/evidential) categories. Let us start with a structure of a perfective-past-indicative and perfective-past-evidential events and their spell-out respectively.

(1)   a. gel-di -m   b. gel-miş-im

       come-perf.past.indic-1sg   come-perf.past.evid-1sg

       'I came.'   'Apparently, I came.'
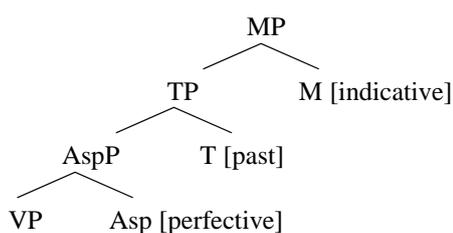
```
            MP                              MP
           /  \                            /  \
         TP    M [indicative]            TP    M [evidential]
        /  \                            /  \
     AspP   T [past]                 AspP   T [past]
     /  \                            /  \
   VP    Asp [perfective]          VP    Asp [perfective]
```
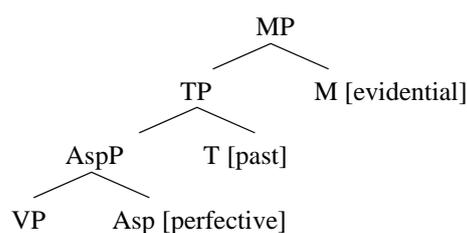
In the lexicon, we have two different lexical items which are candidates for the spell-out of the structures in (1), and their structures and phonological exponents are shown in (2). For the purposes of differentiating the syntactic structures from the lexical structures, I will show the latter eliminating phrase levels, showing only the heads. However, note that this does not mean that the tree in the lexicon is different from the one in syntax.

(2)   a. -*DI*   M   b. -*mIş*   M

```
(2)   a. -DI        M                    b. -mIş              M
              /\                                        /\
             T    M [indicative]                   T      M [evidential]
            /\                                     /\
          Asp   T [past]                         Asp    T (underspecified for T)
          /\                                     /\
             Asp [perfective]                       Asp [perfective]
```
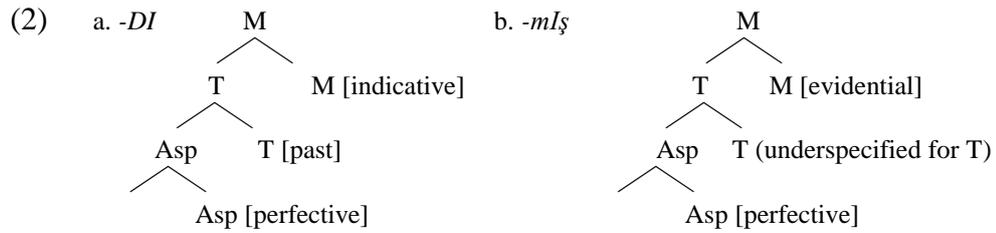
The syntactic structure above VP in (1a) is spelled-out by -*DI*, while the other is spelled-out by -*mIş*. Based on (3), those lexical items should include the structure in the syntactic tree in order to be able to spell them out.

(3)   A lexically stored tree matches a syntactic node iff the lexically stored tree contains the syntactic node.

-*DI* has a structure stored in the lexicon which has the features [perfective], [past] and [indicative] and it can spell-out the same structure with the same features constructed in the syntax. -*mIş* has a structure stored in the lexicon with [perfective] and [evidential] features, unlike -*DI* it is underspecified for a T feature although it contains TP in its structure. Namely, -*mIş* is underspecified for T and can mean present, past and future.[23]

Similarly, in (4c) the structure which has AspP with [imperfective], TP with [present] and MP with [indicative] would be spelled-out by the lexical item -*Iyor*, because it contains the same tree structure. The structure contained in the lexicon is shown in (4b) and the structure in the syntax is shown in (4c).

---

[23] See section 3.2.3 for detailed discussion. See also works where the fact that a single affix in Turkish may simultaneously mean two or more of the tense, aspect or modality categories are observed (Kelepir, 2007, 2012, Johanson, 1971, Göksel and Kerslake, 2005, Taylan and Aksu-Koç, 2001, Taylan, 1997, 2001, Aksu-Koç, 1988, 1995, Cinque, 2001, Sezer, 2001, Slobin and Aksu-Koç, 1982, Temürcü, 2007, Yavaş, 1980, Güven, 2004).

(4)   a. gel-iyor-um

       come-imperf.pres.indic-1sg

       'I am coming.'

b. *-Iyor*

```
              M
            /   \
          T      M [indicative]
        /   \
     Asp     T [present]
        \
         Asp [imperfective]
```

c.

```
               MP
             /    \
           TP      M [indicative]
         /    \
       Asp     T [present]
      /   \
    VP     Asp [imperfective]
```
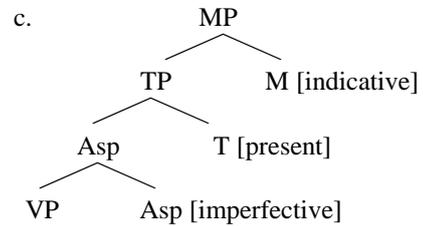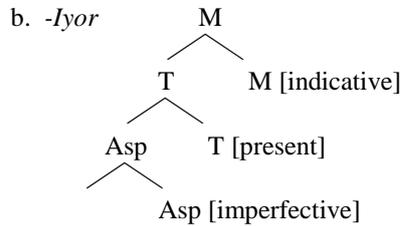
In the next section, I will discuss the spell-out of the complex predicates with low and high predicates.

4.1.1.1 The Structures Spelled-out by *-DI* and *-mIş*

In this section, firstly, I will discuss the structures spelled-out by *-DI* and later I will discuss the ones spelled-out by *-mIş* in the combination of two complex predicate structures.

4.1.1.1.1 -DI

As I discuss in Section 3.2, when the default value interpretation of a category is modified, the combination of two complex predicates occurs which results in the insertion of a copula. In a structure where an imperfective-present-indicative event is expressed in past, the T interpretation (present) in a structure with the imperfective Asp is modified. The copula is merged because the higher T at the edge of the high predicate requires a visible VP in its domain and the VP in the lowest position is

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invisible by the T repeated in the high predicate[24]. The structure that I assume for such an event is shown in (5).

(5)   a. gel-iyor i-di-m

        come-imper.pres.indic cop-past.indic-1sg

        'I was coming.'

b.

```
                              MP[25]
                           /        \
                         TP          M [indicative]  ⎫
                       /    \                        ⎬ spelled-out by -DI
                     VP      T [past]                ⎭
                   /    \
                 MP      V  ⎫ spelled-out by i-
               /    \       ⎭
             TP      M [indicative]  ⎫
           /    \                    ⎬ spelled-out by -Iyor
        AspP     T [present]         ⎪
       /    \                        ⎭
     VP      Asp [imperfective]
```
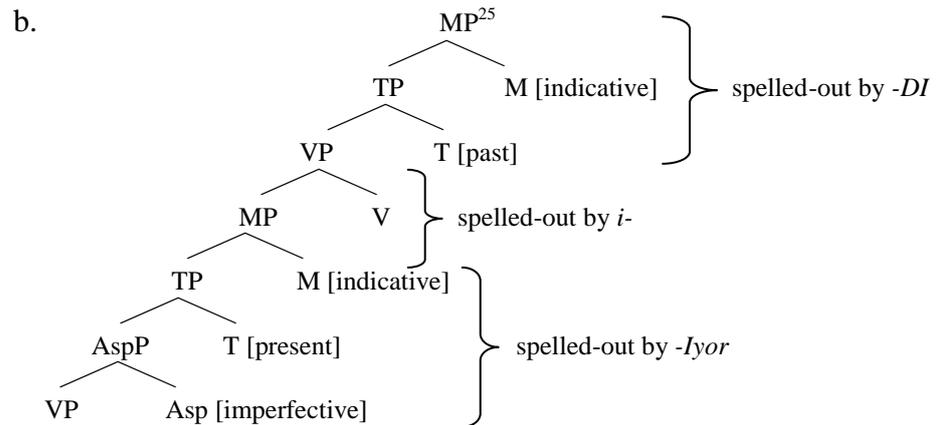
The spell-out of this structure is as follows. Since the spell-out occurs bottom-up, first *-Iyor* spells out the low predicate which includes Asp, T and M nodes, because in the lexicon it contains this structure and the same features under the nodes of syntactic structure. Note that Asp, T and M nodes of the lexical item *-Iyor* perfectly match the structure in the syntax. Remember that this is possible based on the Superset Principle which implies that the lexical tree will either be the super-set of syntactic structure that it spells-out or it can match it one-to-one.

---

[24] See Section 3.3.

[25] Note that there is no other evidence for the existence of MP in the high predicate other than the empirical data which shows that it is specified for an M value. The AspP is only in the low predicate but not in the high predicate, because the copula *i-* does not denote event and lexical aspect, thus it cannot be specified for grammatical aspect either.

For the higher V head, it can only be filled by the copula *i-* because T selects for it. The higher T and M heads are spelled out by *-DI* which contains the T and M nodes in its own structure stored in the lexicon.

However, there is a problem with the spell-out of T and M nodes, which have [past] and [indicative] features respectively in (5b), by the lexical item *-DI*. Because the spell-out occurs cyclically and bottom-up, the options for a lexical item which can spell-out a tree in the syntax are restricted. It can only start to spell-out by matching the lowest node of its own structure. So, the possible structures that can be spelled-out by *-DI* are the following. Remember that *-DI* has [perfective], [past] and [indicative] nodes, which are in hierarchical relation respectively.

1. Asp [perfective]
2. Asp [perfective] + T [past]
3. Asp [perfective] + T [past]+ M [indicative]

Based on the assumption that the spell-out occurs cyclic and bottom-up, the following possibilities of spell-out by *-DI* are eliminated.

4. * T [past]+ M [indicative] (as in the case of (5))
5. * Asp [perfective] + M [indicative]
6. * M [indicative]
7. * T [past]

The reason of the impossibility of the option 5 is that *-DI* cannot skip its [past] node in order to spell-out such a structure. The reason why option 4 is eliminated is that it

cannot leave its lowest node unused. Although the spell-out of T and M above the copula by *-DI* should be impossible in (5), based on the assumption that spell-out occurs cyclic and bottom-up, we get a grammatical result. In Section 4.1.2, I will try to present an account for why in (5), we get a grammatical result with the insertion of *-DI*.

Leaving that problem aside for the time being, I want to discuss the structures spelled-out by the lexical item *-mIş* in the next section.

4.1.1.1.2 -mIş

Remember that *-mIş* has an Asp node with the feature [perfective], a T node with an underspecified T value and an M node with the feature [evidential]. These nodes are in a hierarchical relation respectively. Based on the assumption that spell-out occurs cyclically and bottom-up, possible structures that can be spelled-out by *-mIş* are the following.

1. Asp [perfective]
2. Asp [perfective]+ T [present/past/future]
3. Asp [perfective]+ T [present/past/future] + M [evidential]

The structures that are impossible to be spelled-out by *-mIş* can be summarized as the following.

1. * T [present/past/future]
2. * M [evidential]

3. * T [present/past/future] + M [evidential]

4. * Asp [perfective] + M [evidential]

However, I will now show that among the expected impossible structures summarized above, the third option is in fact possible. First, let us discuss the spell-out of the structure in (6) similar to the one in (5).

(6)   a. gel-iyor i-miş-sin

         come-imperf.pres.indic cop-pres.evid-2sg

         'Apparently, you are coming.'

         b.
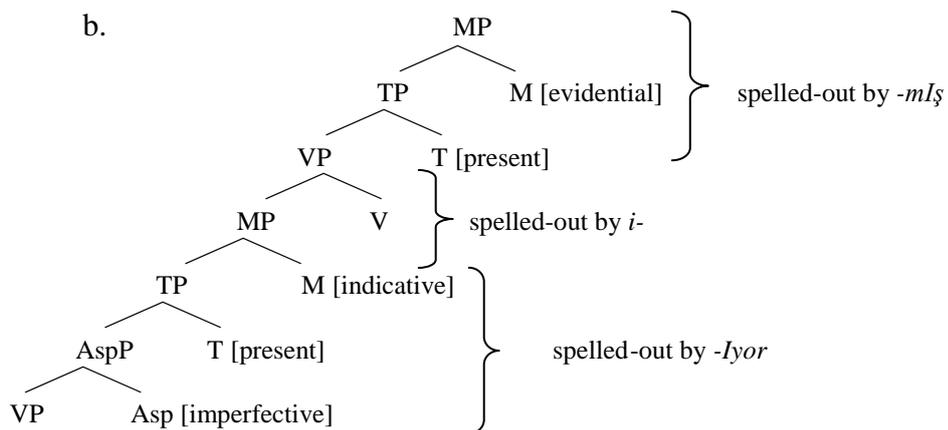
In (6), we see the combination of two complex predicates where an imperfective-present-indicative event is combined with a higher predicate with a [present]-[evidential] features. Remember that the structure consists of two complex predicates because the value of M, which is interpreted as indicative by default with the imperfective Asp, is modified as evidential. The spell-out of the structure above the copula which includes T [present] and M [evidential] is possible by -mIş, which is unexpected as discussed above. In the next section, I will discuss a possible solution for problems discussed in Sections 4.1.1.1.1 and 4.1.1.1.2.

4.1.2   Pointers and (In)Dependency Relations

In this section, following Starke (2011), Caha and Pantcheva (2012) I propose that lexical entries can contain pointers. In addition to the downward pointer of Caha and Pantcheva, which I call lex-lex pointer, I propose that there is another type of pointer which is upward showing a dependency relation between the features of a lexical item and I call it feature-feature pointer.

In the previous two sections, I presented two problems related to the lexicalization of a syntactic structure by *-DI* or *-mIş* which are summarized below.

Problem 1: How can *-DI* lexicalize a syntactic structure including a T node with the feature [past] and an M node with the feature [indicative], although it is not supposed to leave its lowest node and feature Asp [perfective] unused?

Problem 2: How can *-mIş* lexicalize a syntactic structure including a T node with [past/present/future] feature and an M node with [evidential] feature, although it cannot leave its lowest node and feature Asp [perfective] unused?

In order to solve the two problems previously stated, I claim, adopting Starke (2011) and Caha and Pantcheva (2012), that the mutual relation of the features under the nodes of the tree stored in the lexicon can be more complex than just assuming they are in a hierarchical relation. In particular, entries in the lexicon can contain a pointer to an existing lexical entry, which causes the Superset Principle to be restarted at the node at which the pointer is directed.[26] This can be summarized below in (7), where Entry A has a pointer to Entry B.

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[26] This idea was proposed recently by Starke (2011), Caha and Pantcheva (2012) in order to explain the syncretism between case and gender markers in German. They assume that case is hierarchically

(7)   Entry B   γ   Entry A   c
                     ╱   ╲   ╱   ╲
                    γ   β   c   b
                         ╱   ╲   ╱   ╲
                        β   α   b   a
                            ╱   ╲   ╱   ╲
                           α   a   ▲B
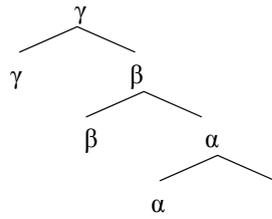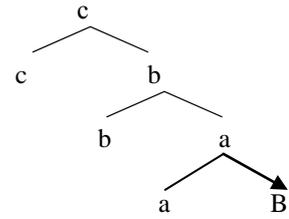
4 out of 12 possible syntactic structures that Entry A can lexicalize are shown below.

1. c   2.   3.   4.
  ╱ ╲
 c   b   b   c
    ╱   ╲   ╱   ╲   ╱   ╲
   b   a   b   a   c   b
       ╱   ╲   ╱   ╲   ╱   ╲
      a   γ   a   γ   b   a
          ╱   ╲   ╱   ╲   ╱   ╲
         γ   β   γ   β   a   β   a
             ╱   ╲   ╱   ╲   ╱   ╲   ╱   ╲
            β   α   β   α   β   α a   α
                ╱   ╲   ╱   ╲   ╱   ╲   ╱   ╲
               α   α   α   α
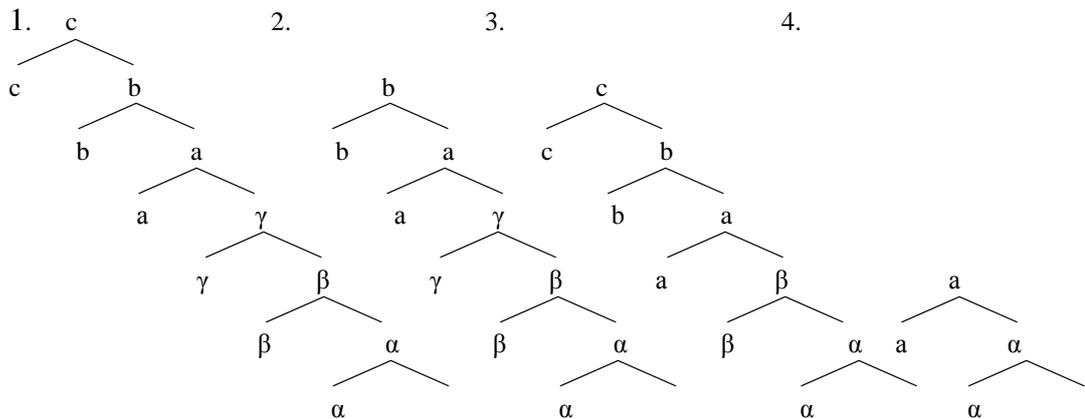
As opposed to 1 where Entry A can lexicalize a structure by one-to-one match, in e.g. 4 it lexicalizes a syntactic structure corresponding to the lowest nodes of Entry A and B. Entry A can lexicalize such a structure because it contains a pointer to Entry B, so by means of this, the Superset Principle can be applied to the structure above the pointer and the one below the pointer at the same time.

In the next section, I extend the function of pointers, proposing that there are two kinds of pointers, which I call lex-lex pointers and feature-feature pointers.

---

above the gender categories and there is syncretism between case and gender in this language. Namely, genitive case is the highest category and includes accusative and nominative cases below it, and they are above the masculine and neuter gender categories. The structure with the gender categories can be lexicalized by the lexical entry which contains case categories, resulting in one lexical item insertion to the structure with case and gender categories. With the pointers the lexical item which contains case categories can spell-out the structure including case and gender, because the assumption is that it contains a pointer to the lexical item which has gender categories. Otherwise, the insertion of two lexical items would be expected, one is to the structure with case categories and the other is to the structure with gender categories.

I propose that pointers should also have other functions besides restarting the Superset Principle at the node that the pointer is directed at. One of these is to show an independency relation between a lexical item and another lexical item that it points to, which I call lex-lex pointers. The other one I would like to propose is feature-feature pointers.

4.1.2.1.1 The Pointers between Two Lexical Items: Lex-lex Pointers

The first function that I propose a pointer should have is to show an independency relation between a lexical item and the other lexical item that it points to, which I call lex-lex pointers. This means that Entry A can also lexicalize a syntactic structure which contains the same phrases with the same features as the one of Entry A above the lex-lex pointer, independently from the lexical item that it has a pointer for. This possibility is shown in (8).

(8)
```
        c
      /   \
     c     b
          /  \
         b    a
             / \
            a
```
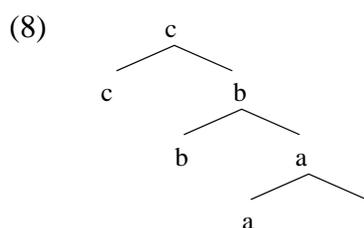
Adopting the pointer idea, I propose that *-DI* and *-mIş* contain lex-lex pointers to a lexical item which only includes an AspP with [perfective] feature. This proposal is shown in (9).

(9) *-DI*

```
            M
          /   \
        T       M [indicative]
       / \
     Asp   T [past]
    /  \
  Asp [perfective]
```

-mIş

```
            M
          /   \
        T       M [evidential]
       / \
     Asp   T (not specified for T)
    /  \
  Asp [perfective]
```
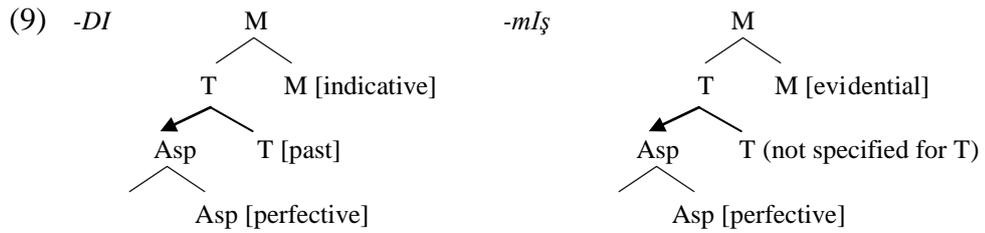
This proposal implies that the [perfective] feature does not directly belong to *-DI* and *-mIş*, but their ability to lexicalize the structures which has [perfective] is the result of the lex-lex pointer that they have towards another lexical item with [perfective] feature. With the proposal shown in (9), *-DI* and *-mIş* should be able to lexicalize the following structures respectively, leaving the [perfective] feature unused, based on the proposal that the lex-lex pointer shows the ability of *-DI* and *-mIş* to lexicalize a structure independently from [perfective].

(10) a.

```
            MP
          /    \
        TP      M [indicative]
       /  \
           T [past]
```

b.

```
            MP
          /    \
        TP      M [evidential]
       /  \
           T [past/present/future]
```
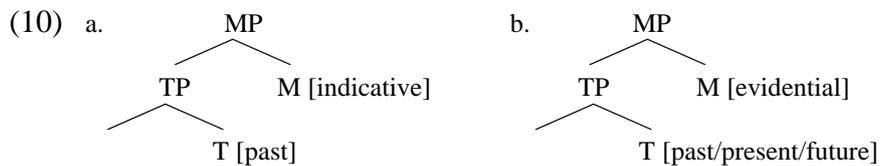
So, I propose above that there is a lexical item with a [perfective] feature which *-DI* and *-mIş* have a lex-lex pointer for. If this is the case, why do we not see the insertion of such a lexical item in any of the Turkish data? The reason for this that I argue for comes from the theorem 'the biggest wins' (Override Effect). Based on this theorem, *-DI* and *-mIş* always overrides the successful spell-out by the lexical item with [perfective], because they contain a bigger structure than this lexical item. Let us examine how the lexicalization of the following structure occurs.

(11)   a. gel-di-m

come-perf.past.indic.-1sg

'I came.'

b.
```
                    MP
                  /    \
               TP      M [indicative]
              /  \
          AspP    T [past]
         /   \
       VP     Asp [perfective]
```
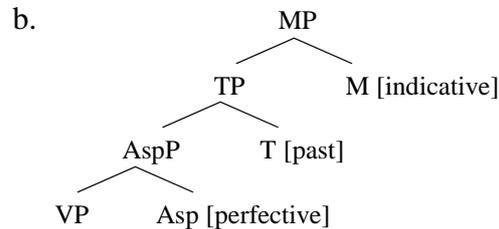
We have two lexical items which compete for the structure in (11). One of them is the lexical item containing [perfective], the other is *-DI* containing [[[perfective] ← past] indicative]. The spell-out occurs cyclic and bottom-up, so first the lexical item with [perfective] spells-out the Asp node, and secondly *-DI* overrides the successful spell-out of this lexical item because *-DI* is bigger than it. The reason why we do not see the lexical item only with [perfective] is that *-DI* or *-mIş* always overrides its successful spell-outs.

In summary, the problems that are pointed out in Section 4.1.1.1 and summarized in Section 4.1.2 can be answered in the following way.

Problem 1: How can *-DI* lexicalize a syntactic structure including a T node with the feature [past] and an M node with the feature [indicative], although it is not supposed to leave its lowest node and feature Asp [perfective] unused?

Problem 2: How can *-mIş* lexicalize a syntactic structure including a T node with [past/present/future] feature and an M node with [evidential] feature, although it cannot leave its lowest node and feature Asp [perfective] unused?

Answer: Both *-DI* and *-mIş* contain a lex-lex pointer to a lexical item which has only an AspP with [perfective] feature, so they can lexicalize a structure independently from it, leaving it unused.

In conclusion, I propose that a lexical item can be stored with a pointer or without a pointer in the lexicon and the ones with the pointer have a much wider range of application than the ones without a pointer. By means of a lex-lex pointer, the Superset Principle can restart from the place where the pointer is located and it shows the independency of the lexical item from the lexical item that it has a lex-lex pointer to. The example for a lexical item without a pointer shown in this thesis is *-Iyor* and the examples for a lexical item with a pointer discussed in this thesis are *-DI* and *-mIş*.

However, this is not the end of the story. I want to point out the following structure, which *-mIş* can lexicalize but *-DI* cannot, although both of them are expected to do so in light of the proposals made so far.[27]

(12)   a. gel-miş i-miş-0

    come-perf.past cop-past.evid-3sg

    'Apparently, it was the case that he came.'

  b. *gel-di i-miş-0

    come-perf.past cop-past.evid-3sg

    Intended meaning: 'Apparently, it was the case that he came.'

---

[27] See section 3.2.4 for the discussion on how we get the structure in (12).

```
                          MP
                 TP            M [evidential]  ⎫
                                               ⎬  lexicalized by -mIş
            VP       T [past]                  ⎭
        TP       V      ⎫
                        ⎬  lexicalized by i-
   AspP     T [past]    ⎭
                              ⎫
VP      Asp [perfective]      ⎬  lexicalized by -mIş/*-DI
                              ⎭
```
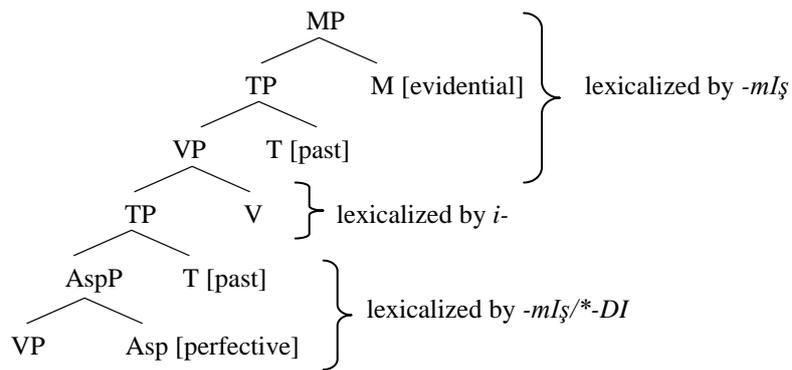
Remember that *-DI* contains [[[perfective]← past] indicative] so it is expected to
lexicalize the structure in (12) by the Superset Principle. *-mIş* is also expected to
lexicalize this structure because its structure stored in the lexicon is [[[perfective]←
past/present/future] evidential]. However, only *-mIş* actually lexicalizes it. This
implies that there must be something that prevents *-DI* to be inserted there. I will
discuss a solution for this problem in the following section, where I propose that
there is another type of pointer which shows a dependency relation between the
features of a lexical item as opposed to the type of pointer (lex-lex) discussed so far,
and that pointer is a feature-feature pointer.

4.1.2.1.2 Feature-feature Pointers and Dependency Relations

The other problem stated in the preceding section was the following:

   Problem 3: Why cannot *-DI* lexicalize the structure in (12) although it is allowed
   by the Superset Principle?

The lex-lex pointer that is discussed so far is the type which shows the independency relation between the lexical item and the other lexical item that it has pointer to and it is downward. As a solution to the problem 3 stated above I want to propose another kind of pointer, which shows a dependency relation between the features of a lexical item and its direction is upwards. I call this type of pointer a feature-feature pointer.[28]

I propose that differently from *-mIş*, *-DI* has a feature-feature pointer besides a lex-lex pointer, which is shown in (13).

(13)   *-DI*[29]
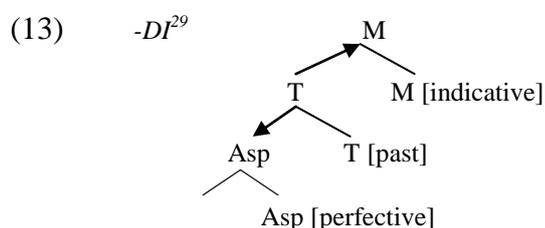
The upward pointer of *-DI* shows that its T node is dependent on its M node, so whenever it lexicalizes a structure including T [past], this structure should also include an M node with [indicative]. Otherwise, the dependency relation prevents it from lexicalizing the structure with T [past].

-DI cannot lexicalize the structure in (12) because this syntactic structure has only [perfective] and [past] not [indicative]. So, *-mIş* is the only option which can lexicalize this structure because it does not contain any feature-feature pointer between TP and MP in its structure, as opposed to *-DI*.

---

[28] I leave the possibility that a lexical item can have an upward pointer to another lexical item for further research. For this data, I propose that the upward pointers show the dependency relation between two features of a lexical item and that is why I call them feature-feature pointers.

[29] When the lexical item such as *-DI* is inserted in the functional nodes in a predicate it also lexicalizes the default agreement, which is third person singular. I will explain this in Section 5.4.2.

Following Nano-syntax, I propose an analysis of the spell-out of Turkish verbal domain. The Nano-syntactic theory assumes that the terminals are smaller than lexical items and insertion of lexical items occurs post-syntactically. The lexical items are sub-morphemic containing tree structures paired with phonological and conceptual information, stored in the lexicon. Based on the Superset Principle, Elsewhere Principle, Override Effect, and pointers which constitute the important building blocks of Nano-syntax, I follow Starke (2011) Caha and Pantcheva (2012) in that some lexical items contain pointers, some do not. In addition to them, I propose that there are two types of pointers whose direction are upwards and downwards. I call the pointer proposed by them lex-lex pointer (downward), and I propose that it also shows an independency relation between a lexical item and the other lexical item which it has a pointer to. The upward pointer shows a dependency relation between the features of a lexical item and I call it feature-feature pointer.

The lexical items with lex-lex pointers can point to another lexical item stored in the lexicon. At the place of the pointer, the Superset Principle can be restarted, resulting in much wider range of applications compared to the lexical items without a pointer, whose possible structures to lexicalize are restricted by the assumption that the spell-out is cyclic and bottom-up.

My proposal for *-DI* is that it contains two pointers, one is lex-lex and the other is feature-feature, while *-mIş* only contains a lex-lex pointer. On the other hand *-Iyor* has no pointers; therefore, it has a much narrower range of applications compared to *-DI* and *-mIş*.

One drawback of this theory is the possible learning load that it poses on a child during the language acquisition period. Namely, the child has to store tree structures, which can include pointers or no pointers in the lexicon for corresponding lexical items. However, I want to point out that the features of a lexical item are somewhat in a hierarchical relation. In the data presented above there is no case where an entry A which has [a[b[c]]] can lexicalize a syntactic structure such as [a[c]] leaving its node b unused. It also cannot lexicalize a structure such as [b]. This lexical item which does not have any pointer can start lexicalizing by using its bottom feature first. The possible structures that it can lexicalize are [c], [b[c]], [a[b[c]]]. Even if we may not adopt the idea that the lexical items contain tree structures, I believe that the features inside a lexical item should be assumed to have a hierarchical and (in)dependency relation, at least for the Turkish data that I present in this thesis. The universality of the proposal made in this study needs further research on other languages.

4.2 An Alternative Account: Distributed Morphology

In this section I would like to discuss a Distributed Morphology (DM) analysis of Turkish because although similar in spirit to Nano-syntax, it does not make the right predictions about Turkish data.

DM which is a theory of the architecture of the grammar was first proposed in the early 1990s (i.e. Halle and Marantz, 1993, 1994, Embick, 1995, Harley, 1994, Harris, 1994, Noyer, 1997, among others). DM assumes that morphology is not concentrated in a single part of grammar but is distributed among its different parts. According to this theory there is no phonological information at the syntactic levels

of Logical Form (LF), D-Structure (DS), and S-Structure (SS) and they obtain this information at the level of Morphological Structure (MS) which is assumed to occur after spell-out between SS and Phonological Form (PF).

Based on the observation that there seems to be no one-to-one correspondence between terminal elements in the syntax- which consist of complexes of grammatical features- and phonological pieces, DM identifies MS as a level of grammatical representation which has its own principles. Morphemes, which are defined as syntactic or morphological terminals and their contents, may be inserted at MS to meet the language-specific well-formedness conditions (Halle and Marantz, 1993). For example, Agreement is supposed to be implemented by adjoining an Agr morpheme to the T node and features of the subject are copied onto the Agr node created in MS.

The phonetic exponents of morphemes are listed in the Vocabulary (the set of all Vocabulary items), paired with the information about the grammatical features in which the exponent is inserted. The phonological expression of syntactic terminals happens after syntax by Late Insertion (Halle and Marantz, 1993, 1994).

The core properties of DM that I will discuss in this part are the Subset Principle and Underspecification. The Subset Principle (Halle, 2000: 134) is stated in (14).

(14) The phonological exponent of a Vocabulary item is inserted into a morpheme […] if the item matches all or a subset of the grammatical features specified in the terminal morpheme. Insertion does not take place if the Vocabulary item contains features not present in the morpheme. Where several Vocabulary items meet the conditions for insertion, the item matching the greatest number of features specified in the terminal morpheme must be chosen.

The phonological pieces are not required to carry all the grammatical features; they may not be fully specified for the syntactic positions where they are inserted. So, Vocabulary items are underspecified with respect to morpho-syntactic features (Halle and Marantz, 1993).

As a final note, null morphemes can exist in languages; namely, the phonological content of a Vocabulary item may be null/zero.

In the next section, I will show that Subset Principle makes incorrect predictions for the insertion of *-mIş*.

4.2.1 *-mIş* as an Exception to the Subset Principle

In this part, I will show that *-mIş* is an exception to the Subset Principle by presenting the data which include the insertion of the Vocabulary items *-DI* and *-mIş* in syntactic structures.

In (15), I give the list of environments for the Vocabulary items *-DI* and -*mIş*.

(15)   *-DI*: [perfective, past, indicative]

         -mIş: [perfective, past/present/future, evidential]

Based on the constraint in (16) posited by Halle (2000), I assume the bundles of features for *-DI* and *-mIş* given in (17).

(16) The number of features mentioned in the Vocabulary must be minimized.

(17) *-DI*: [past]

   -mIş: [perfective, evidential]

The reason why I assume those feature bundles for the Vocabulary items *-DI* and *-mIş* are the following. *-DI* is always inserted in structures which contain past T and indicative M. Although it is possible to see the insertion of *-DI* in the structures containing perfective Asp, it can also be inserted in the absence of it in the structure.[30] Two possible examples where *-DI* is inserted in a structure one of which contains perfective Asp and the other of which does not contain perfective Asp are shown in (18).

(18) a. gel-di-m

      come-perf.past.indic-1sg

     'I came.'

   b. gel-iyor i-di-m

     come-imperf.pres.indic cop-past.indic-1sg

     'I was coming'

Because *-DI* can also be inserted into the structures where there is no perfective Asp, I assume that it does not contain the feature [perfective]. As for the [indicative] feature, following the constraint in (16), I assume that it does not need to contain it, because *-mIş* has [evidential] feature, so adding [indicative] feature in the feature bundles of *-DI* would be unnecessary. Namely, whenever the structure has

---

[30] This observation is also made in Kornfilt (1997) and Göksel and Kerslake (2005), Taylan and Aksu-Koç (2001), Taylan (1997, 2001), Sezer (2001).

[evidential] feature *-mIş* will be inserted and whenever the structure has [indicative] feature by default the underspecified Vocabulary item *-DI* would be inserted.

As for *-mIş*, it is impossible to say that it only contains [evidential] feature because it can be inserted into a structure which has perfective Asp and evidential M as in (19a), a structure which has perfective Asp without evidential M as in (19b), and a structure with evidential M and without perfective Asp as in (19c).

(19) a. gel-miş-0   (perf Asp and evid M)

   come-perf.past.evid-3sg

   'Apparently, he came.'

   b. gel-miş i-di-0   (perf Asp no evid M)

   come-perf.past cop-past.indic-3sg

   'It was the case that he came.'

   c. gel-iyor i-miş -0   (no perf Asp, evid M)

   come-imperf.pres.indic cop-past/pres/fut.evid-3sg

   'Apparently, she was coming/is coming/will come.'

Now I want to discuss the insertion of *-DI* and *-mIş* into syntactic structures in the next section.

In Section 4.1.1 I assume the structures in (1) repeated here as (20) for a

perfective+past+indicative event in (20a) and a perfective+past+evidential event in

(20b). [31]

(20) a.
```
              MP
           /      \
         TP        M [indicative]
        /    \
     AspP     T [past]
    /    \
  VP      Asp [perfective]
```

b.
```
              MP
           /      \
         TP        M [evidential]
        /    \
     AspP     T [past]
    /    \
  VP      Asp [perfective]
```
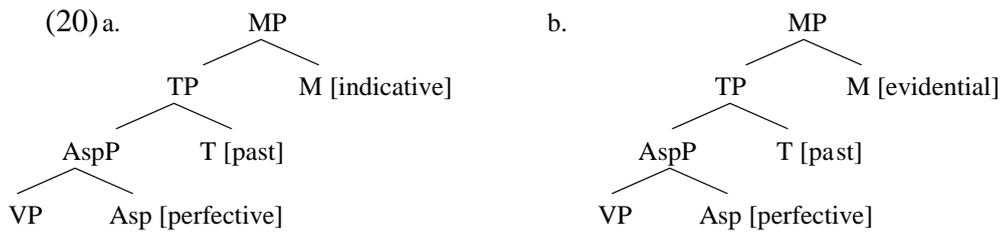
The Vocabulary item insertion into the above structures happens as follows.

For (20a), firstly, I assume that the morphemes undergo fusion and only one

Vocabulary item can be inserted into the fused morpheme which include the features

[perfective, past, indicative]. The only possible Vocabulary item to be inserted is *-DI*

because it has the [past] feature and it matches the subset of the morpho-syntactic

features of the fused morpheme. This is allowed by the Subset Principle, according to

which a Vocabulary item can be inserted into a morpheme if it matches all or a

subset of the grammatical features specified in the morpheme. *-mIş* cannot be

inserted because it violates the Subset Principle, containing a feature-[evidential]- not

present in the morpheme.

For (20b), I also assume that the morphemes undergo fusion and only one

Vocabulary item can be inserted into this fused morpheme, which is *-mIş*. This is

compatible with the Subset Principle, because the morpheme contains [perfective,

---

[31] Note that DM analysis assumes that the features are binary (i.e. Halle, 2000, Halle and Marantz, 1993). Because assuming binary features would not affect the analysis in this thesis, I show them without any binary features.

past, evidential] features, and the Vocabulary item *-mIş* contains [perfective, evidential] features.

However, the problem arises when *-mIş* is inserted into a structure which contains perfective Asp but not evidential M, which is shown in (19b). The structure that I assume for it is shown in (21).

(21) gel-miş i-di-0

come-perf.past cop-past.indic-3sg

'It was the case that he came.'

```
                          MP
                        /    \
                     TP       M [indicative]
                    /  \
                 VP     T [past]
                /  \
             TP     V
            /  \
        AspP    T [past]
        /  \
     VP    Asp [perfective]
```
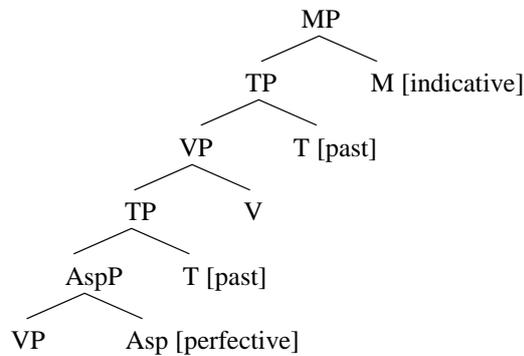
According to the Subset Principle, *-mIş* should not be inserted into the structure shown in (21) because a Vocabulary item should not include different features than the ones in the structure. When *-mIş* is inserted into this structure its [evidential] feature is left unused, violating the Subset Principle. In other words, *-mIş* contains the superset of the features contained in the syntactic structure.

However, we get a grammatical result with the insertion of *-mIş*. Another problem arises when *-mIş* is inserted into a structure which contains evidential M but not perfective Asp, which is shown in (19c). The structure I assume for it is shown in (22).

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(22) gel-iyor i-miş-0

come-imperf.pres.indic cop-pres.evid-3sg

'Apparently, she is coming.'

```
                        MP
                       /  \
                      TP   M [evidential]
                     /  \
                    VP   T [present]
                   /  \
                  MP   V
                 /  \
                TP   M [indicative]
               /  \
            AspP   T [present]
            /  \
          VP   Asp [imperfective]
```
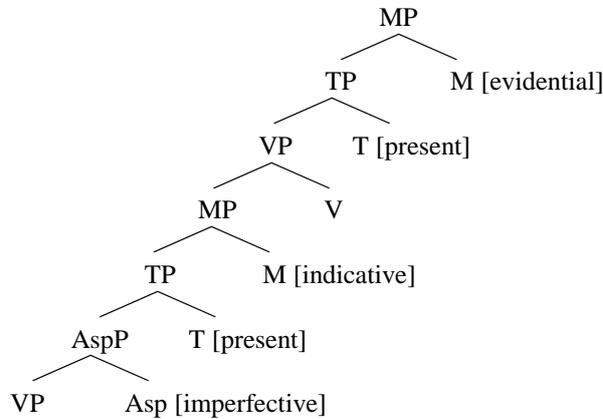
The insertion of *-mIş* into the structure in (22) should not be possible again by the Subset Principle because *-mIş* contains [perfective] feature which is not present in the structure. However, with the insertion of *-mIş*, we get a grammatical result, just like we do in (21).

One way to solve these problems posited above would be to say that there are two distinct Vocabulary items in the Vocabulary, whose phonological shapes are the same. One is identified with the feature [perfective] and the other is identified with the feature [evidential]. This assumption would be problematic in two aspects.

The first problem is that assuming two different Vocabulary items for *-mIş* would contradict the constraint given in (16) and repeated here in (23) (Halle, 2000) and should, as such, be unacceptable.

(23) The number of features mentioned in the Vocabulary must be minimized.[32]

---

[32] Halle assumes that children learn the Vocabulary items with the same phonological shape as additional Vocabulary items and claims that for example there is a single entry *are* for the present tense plural, stating that there would be no empirical reason to assume this entry as the following.

Another problem in assuming two different entries for *-mIş* is the fact that *-mIş* can

also be inserted into a structure which contains both perfective Asp and evidential M

as in (20b) repeated here as (24).

(24)

```
                        MP
                       /  \
                     TP    M [evidential]
                    /  \
                 AspP   T [past]
                /  \
              VP    Asp [perfective]
```
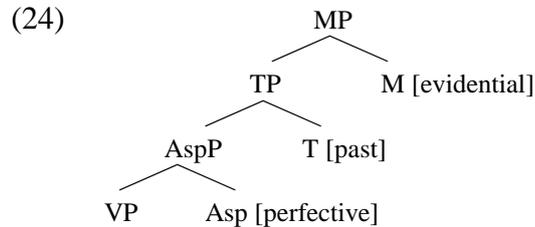
If there were two entries for *-mIş*, we would expect two *-mIş* insertions into this

structure, the one with [perfective] feature would be inserted to the Asp node, and the

other with the [evidential] feature would be inserted into M node. However, the

phonological realization of this structure carries only one *-mIş* as shown in (25).

(25) a. gel-miş-0

    come-perf.past.evid-3sg

    'Apparently, he came.'

---

b.*gel-miş -miş-0[33]

come-perf -evid-3sg

Intended meaning:'Apparently, he came.'

If we assume that there are two distinct entries for *-mIş*, we would also expect the

insertion of *-DI* into the past T head, which would give an ungrammatical result as in

(26).[34]

(26) *gel-miş-di-miş-0

come-perf -past-evid-3sg

Intended meaning: 'Apparently, he came.'

4.2.2 Summary

In summary, *-mIş* violates the Subset Principle, being inserted into the structures

whose morpho-syntactic features are a subset of the features of *-mIş*. One way to

solve this problem is to assume the existence of two different *-mIş* entries, one of

which contains [perfective] and the other containing [evidential]. However, this

would predict the existence of structures with *-mIş* which are in fact ungrammatical.

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[33] Note that this is different from the structure shown in (i), where there are two *-mIş* insertions, but one is before the copula and the other is after it. In (25b), there is no copula between two Vocabulary items *-mIş*.

   (i) gel-miş i/0-miş-0
      come-perf.past cop-past.evid-3sg
      'Apperantly, it was the case that he had come.'

[34] A possible reason for the absence (25b) would be haplology (no repetition of same elements next to one another), but this cannot be correct because as in (26), we would also expect that *-DI* can be inserted here into the T node and that would break up the *-mIş-mIş* string.

In conclusion, I believe that DM has no way of dealing with the data in Turkish, and because of this I believe that the Nano-syntax account I presented in section 4.1 is superior.

CHAPTER 5

PERSON AGREEMENT IN THE DENİZLİ DIALECT (DD)

5.1 Introduction

In the previous chapters, I presented the syntactic and morphological analysis on the functional categories, copulas and predicate structures which are common to both DD and ST. In this chapter, I will mainly focus on the DD person agreement data, where the person agreement mechanism is quite different from ST, and I will not include a study on person agreement in ST separately or in a comparative way, as this would require a separate study.

The verbal and nominal agreement show different behavior with respect to each other in DD. This part of the thesis aims at presenting an account of this difference. In addition, the spell-out mechanism of the person agreement is analyzed in light of the Nano-syntactic framework.

There are 7 person agreement paradigms in the nominal and verbal domains in DD. In this work, I claim that these paradigms can be grouped under two main headings, the *k* paradigm and the *z* paradigm (terms used for ST as well), based on the differences and their similarities of the particular person markings within them. This is given in Figure 1. (section 5.2.1)

The main differences between the two paradigms are as follows:

(i)   The single predicates, nominal or verbal, are always marked for the person agreement (both the *k* and *z* paradigms).

(ii)   In the combined predicates (in the question and suspended affixation forms), the situation is different: the low predicate can have the person agreement on it (the *k* paradigm) at the same time with the high predicate, resulting in double agreement.

(iii) The agreement on the low predicate as well as on the high predicate is attested only if the low predicate is verbal, and not nominal/participle (the *k* paradigm). While the *z* paradigm can only be seen in the predicate final position of a combined predicate structure, differently from it, the *k* paradigm can also be seen on the low predicate.

The agreement on the verbal low predicates is restricted, though. In the affirmative forms it cannot be realized overtly, whereas in the question forms (formed by the Question Particle (QP) *mI*) it is optional, as shown in (1).

(1) a. gel-di (*-k) -:-di-k   *the affirmative form*

     come-perf.past.indic-(1pl)-cop-past.indic-1pl

    'It was the case that we came.'

  b. gel-di (-k) mi-:-di-k   *the question form*

   come-perf.past.indic-(1pl)QP-cop-past.indic-1pl

   'Was it the case that we came?'

In the suspended affixation of the high predicate on to the coordinated phrase of the low verbal predicates, the first conjunct has to have overt person agreement while the agreement on the second conjunct should be covert as shown in (2).

(2) [gör-dü*(-k) de beğen-di (*-k)]-:-di-k   *the suspended affixation form*

[see-perf.past.indic-(1pl) and like-perf.past.indic-(1pl)]-cop-past.indic-1pl

'It was the case that we saw and (then) liked it.'

In order to capture the different behaviors of the *k* and *z* paradigms, I claim that the two agreement types (verbal and nominal) have different syntactic positions and they establish different kinds of relations. The verbal agreement relation is established inside the predicate structure whereas the nominal agreement relation is established outside the predicate, in the C level (Miyagawa, 2010).

In Section 5.2 I present the person agreement paradigms of DD and in Section 5.3 I analyze the syntactic positions of the two person agreement types. Finally, in Section 5.4 I present a Nano-syntactic analysis on the spell-out mechanism of the person agreement in DD.

5.2 Person Agreement Paradigms in DD

Although there are seven person agreement paradigms in DD, I claim that they belong to two main paradigms. One of them is the verbal paradigm called the *k* paradigm, and the other is the nominal paradigm called as the *z* paradigm. However, the *k* paradigm consists of two different sub-paradigms showing the difference in the third singular forms, and the *z* paradigm also branches into two sub-paradigms. The paradigms of the optative, imperative and possessive structures are also considered to be nominal paradigms, but they will not be the main focus of this chapter.[35] The distribution of the paradigms is shown in Table 2.[36]

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[35] The possessive and imperative paradigms are out of the scope of this chapter and will not be analyzed separately anywhere in this thesis.

Table 2 The Person Paradigms in DD[37]

k paradigm		z paradigm	
Paradigm 1	Paradigm 2	Paradigm 3	Paradigm 4
(-DI, -sA, (I)sA)	(-(I)DI)	(-(A)cA(K), -(I)yo, -mIş, -Ir, -(I)mIş)	(nominals)
1sg -m	-m	-(I)n	-(y)In
2sg -n	-n	-(sI)n	-sIn
3sg 0	-n/0	0	0
1pl -k	-k	-z	-(y)Iz
2pl -nIz	-nIz	-(sI)nIz	-sInIz
3pl -(lAr)	-(lAr)	-(lAr)	-(lAr)

Paradigm 5	Paradigm 6	Paradigm 7
(optative suffix –(y)A)	(Imperatives)	(Possesive)
1sg -: n	-	-(I)m
2sg -	- 0/sAnA/ -sA:	-(I)n
3sg -sIn	-sIn	-(s)I
1pl -lIm	-	-(I)mIz
2pl -	-(y)In/-sAnIzA	-(I)nIz
3pl -sIn(lAr)	-sIn(lAr)	-lArI

The paradigms 1 and 2 are the sub-paradigms of the verbal- *k* paradigm. The paradigm 1 is used with the past morpheme *-DI* and the conditional *-sA* in the single predicate, and it is only used with the conditional *-sA* in the high predicate of the combined predicate structures (when *-sA* is realized after the copula *i-*) . On the other hand, the paradigm 2 is used only after the past morpheme *-DI* when it is realized in the high predicate, namely after the copula *i-*.

Paradigms 3 and 4 are the sub-paradigms of the nominal-*z* paradigm. The paradigm 3 is used with the future marker *-(A)cA(K)*, the imperfective aspect marker *-(I)yo,* the evidential and perfective aspect marker *-mIş*, and the aorist *-Ir* both in the single predicate and in the high predicate of the combination of two predicates (when

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[36]In the Paradigm 3 and 4, the first person can be lexicalized as *-(I)m* and *-(y)Im* respectively. However, this usage is not seen in the speeches of the old generation but the middle-aged generation might use them optionally (but very rarely, probably in a formal environment). I suppose that the paradigms are under the effect of ST where only *-(I)m* is used for the first person singular forms. The data presented here takes the dialect spoken by the old generation as its focus. So, *-(I)m* and *-(y)Im* will not be shown in the Paradigms 3 and 4.

[37] In ST, the *k* and *z* paradigms do not have sub-paradigms. The *k* paradigm corresponds to the Paradigm 1 and the *z* paradigm corresponds to the Paradigm 4 of DD with the exception of the first person singular form which is *-(y)Im* in the ST.

-mIş follows the copula *i-* and the others follow the copula *ol-).*[38] Paradigm 4 is realized following nominal elements such as nouns and adjectives.

Paradigm 5 follows the predicates ending with optative marker *-(y)A* and Paradigm 6 is used after the imperative forms.

Table 3 shows the examples of the *k* and *z* paradigms on the predicates and as a representative purpose one suffix for each paradigm is used in the predicates. Table 4 shows the examples of the paradigms of optative, imperative and possessive structures.

Table 3 The Examples of *k* and *z* Paradigms[39]

k paradigm		*Paradigm 1 (-DI, -sA, (I)sA)*	*Paradigm 2 (-(I)DI)*	
1sg	gel-di-m	'I came.	gel-di-:-di-m	'I had come.'
2sg	gel-di-n	'You came.'	gel-di-:-di-n	'You had come.'
3sg	gel-di-0	'He/She/It came.'	gel-di-:-di-(n)[40]	'He/She/It had come.'
1pl	gel-di-k	'We came.'	gel-di-:-di-k	'We had come.'
2pl	gel-di-niz	'You came.'	gel-di-:-di-niz	'You had come.'
3pl	gel-di-(ler)	'They came.'	gel-di-:-di-(ler)	'They had come.'
z paradigm		*Paradigm 3 (-(A)cA(K), -(I)yo, (-mIş, -Ir, -(I)mIş)*	*Paradigm 4(nominals)*	
1sg	gel-iyo-n	'I am coming.'	hasta-yın	'I come.'
2sg	gel-iyo-n	'You are coming.'	hasta-sın	'You come.'
3sg	gel-iyo-0	'He/She/It is coming.'	hasta -0	'He/She/It comes.'
1pl	gel-iyo-z	'We are coming.'	hasta -yız	'We come.'
2pl	gel-iyo-nuz	'You are coming.'	hasta -sınız	'You come.'
3pl	gel-iyo-(lar)	'They are coming.'	hasta -(lar)	'They come.'

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[38] See Chapter 3 for the discussion on when the copulas *ol-* and *i-* are realized in the structure.

[39] The third person plural form *-lAr* will not be accepted as belonging to any person paradigms although it is shown in all the Tables representing the person paradigms because it shows different behavior with respect to other persons. I will not include it into the scope of this thesis.

[40] The overt marking of the third singular form as *-n* is widely preferred in DD although the covert null form is also acceptable.

Table 4 The Examples of Paradigm 5, 6 and 7

	Paradigm 5 (-(y)A)	Paradigm 6 (imperatives)	Paradigm 7 (possessive)
1sg	gel-e-:n 'I should come.'	-	kitab-ım 'my book'
2sg[41]	-	gel-0/sene[42]/se: 'Come!'	kitab-ın 'your book'
3sg	gel-0[43]-sin 'He/She/It should come.'	gel-sin 'He/She/It must come.'	kitab-ı 'his/her/its book'
1pl	gel-e-lim 'We should come.'	-	kitab-ımız 'our book'
2pl	-	gel-in/senize 'Come!'	kitab-ınız 'your book'
3pl	gel-0-sin(ler) 'They should come.'	gel-sin(ler) 'They must come.'	kitap-ları 'their book'

In the next section, I will present the inheritance hierarchy of the person agreement

paradigms in DD.

5.2.1 The Inheritance Hierarchy of Person Agreement Paradigms

The inheritance hierarchy of person agreement paradigms of DD is shown in Figure

1 below. When looked at it, we can say that there are two main person agreement

paradigms. One is the *k* paradigm (the name comes from the first plural form *-k*)

and it is inflected on the verbal elements (genuine verbal forms - the combination of a

verb and the past morpheme *-DI* or the conditional morpheme *-SA* - in Kornfilt

(1996)). The other is the *z* paradigm (the name comes from the first plural form *-z*)

and it is realized on the nominal or participle forms (fake verbal forms –the

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[41] The optative structure is not preferred in the second forms in DD, as opposed to the ST where the second singular and plural forms are shown in (i).
   (i) a. gel-e-sin   b. gel-e-siniz
         come-optative-2sg   come-optative-2pl
               'I allow/want you to come.'

[42] The second person suffixes *-sAnA* (singular) and *-sAnIzA* (plural) are pursuasive imperative forms, and according to Göksel and Kerslake (2005) they contain the conditional suffix *-sA*, the second person markers from the *k* paradigm and the harmonized interjection *-A*.

[43] The optative suffix is not available or it is in null form when it is followed by the third singular and plural forms.

combination of a verb and the imperfective aspect morpheme *-Iyo*, the future morpheme *-(A)cA(K)*, the aorist *-Ir*, the evidential/perfective marker *-mIş* – in Kornfilt (1996)).

It is clear from Figure 1 is that paradigms 5, 6 and 7 are also inherited from the nominal paradigm group. However, they are separated from the *z* paradigm in a different branching node. The paradigms 3 and 4 are sisters, namely the daughters of the same branching node, whereas the paradigms 5 and 6 are sisters and they are the daughters of the same branching node, which is different from and sister to the mother node of the paradigms 3 and 4. Paradigm 7 is the possessive paradigm, and it is the sister to the mother nodes of the paradigms 3, 4 and paradigms 5,6.

In the following sections, I will only deal with paradigms 1-4, leaving paradigms 5, 6 and 7 aside. I will henceforth refer to paradigms 1-2 as the *k* paradigm and paradigms 3-4 as the *z* paradigm.

Fig. 1 The Inheritance Hierarchy of the Person Markers in DD

(((y)I)m/n)   k/(((l)I) (m)(((y)I)z)
(((s)(I))n)   (((s)I)((y)I)n(Iz))
(((s)I)(n))   (sIn)(lAr(I))

k paradigm
m   k
n   nIz
(n)   (lAr)

(((y)I)m/n)   (((l)I) (m)(((y)I)z)
(((s)(I))n)   (((s)I)((y)I)n(Iz))
(((s)I)(n))   (sIn)(lAr(I))

m   k
n   nIz
0   (lAr)
1st paradigm

m   k
n   nIz
n   (lAr)
2nd Paradigm

z paradigm
((y)I)n   ((y)I)z
((s)I)n   ((s)I)nIz
0   (lAr)

(n)   ((lI)m)
0   ((y)In)
sIn   sIn(lAr)

(I)m   (I)mIz
(I)n   (I)nIz
(s)I   (lAr)I
Possesive P.

n   z
(sI)n   (sI)nIz
0   (lAr)
3rd Paradigm

(y)In   (y)Iz
sIn   sInIz
0   (lAr)
4th Paradigm

n   (lI)m
0   0
sIn   sIn(lAr)
5th Paradigm

0   0
0   (y)In
sIn   sIn(lAr)
6th Paradigm
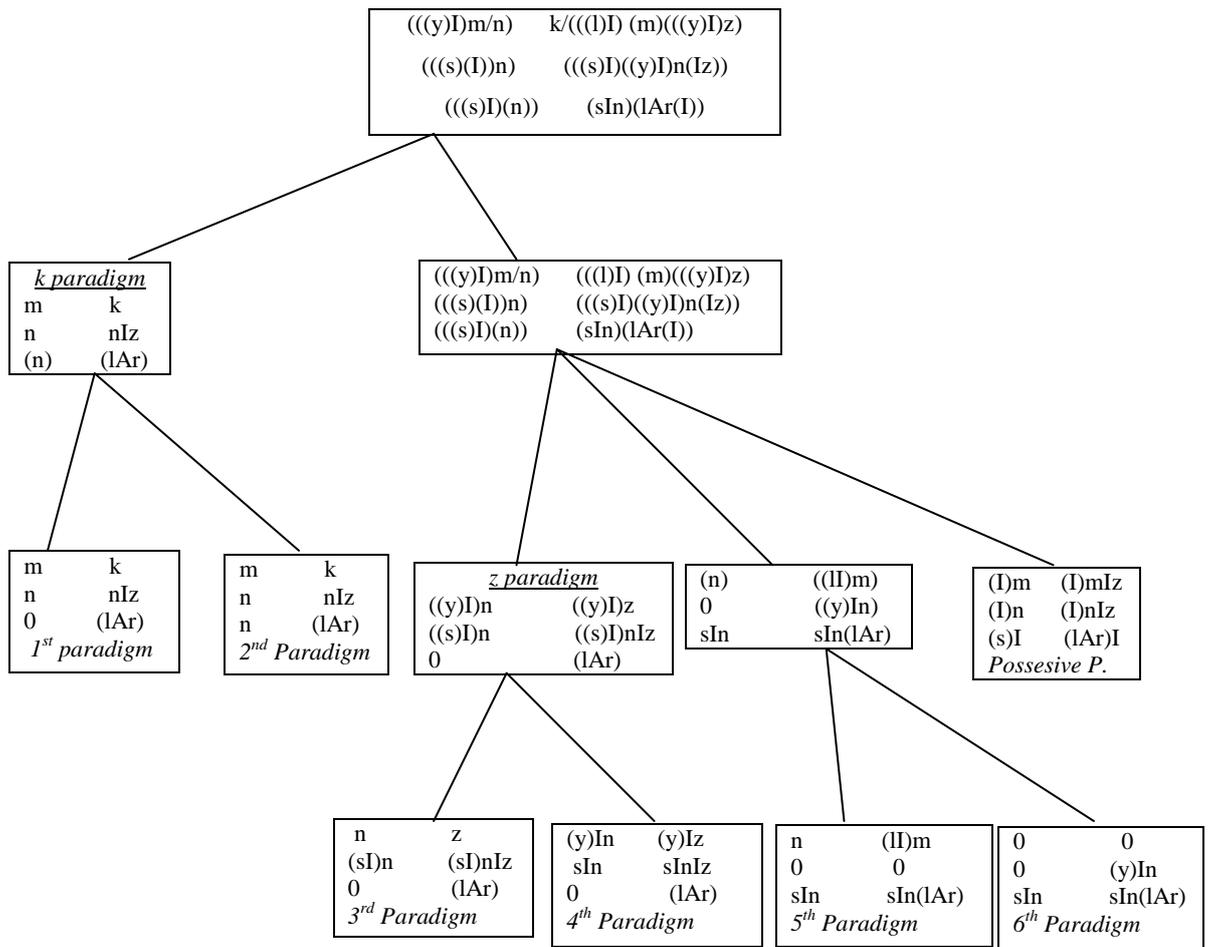
5.3 The *k* and *z* Paradigms

In this section, I will present the difference between the *k* and *z* paradigm in DD and claim that they behave differently with respect to each other both syntactically and morphologically.

In section 5.3.1, the realizations of *k* and *z* paradigms of DD in affirmative and question forms are presented. The reason why I separate affirmative and question forms is the following: While in the affirmative forms the *k* and *z* paradigms show the same behavior, there are differences between them in the question forms where

double agreement is optional. I will explain the details of those differences in the following section.

5.3.1 The Realizations of the *k* and *z* Paradigms in Affirmative Sentences and Questions

The realization of the *k* and *z* paradigms in affirmative and question forms in the combined predicate structures is shown in the following tables in Section 5.2. For a representative purpose, only one functional suffix from each paradigm will be shown in the tables. The symbol Ø is used to represent covert agreement (the absence of an overt agreement) while *Agr* is used to represent overt agreement.

The observations that can be made based on the data presented below in the tables are the following:

1. The *k* paradigm and *z* paradigm can only occur predicate finally in the affirmative forms (not on the low predicate of a combined predicate structure).

(3) a. oku-du (*-k)-:-du-k

read-perf.past.indic.-(1pl)-cop-past.indic-1pl

'It was the case that we read (it).'

b. oku-ca: (*-z)-0-mış-ız

read-fut-(1pl)-cop-evid.-1pl

'Apparently, we will read (it).'

2. In the question forms, the *k* paradigm behaves differently from the *z* paradigm in that it can be seen in the following position of the internal predicate and also at the same time in the predicate final position. Three options as seen in the table 5 for the occurrence of the *k* paradigm are attested in the question forms although the last option is not preferred but acceptable where the *k* paradigm occurs only on the internal predicate. The *z* paradigm is only seen in the predicate final position but not on the internal predicate even in the presence of the question particle *mI*.

(4) a. oku-du-k mu-:-du-k   *the k paradigm*

   read-perf.past.indic.-1pl QP-cop-past.indic-1pl

   'Was it the case that we read (it)?'

  b. oku-du mu-:-du-k

   read-perf.past.indic QP-cop-past.indic-1pl

   'Was it the case that we read (it)?'

  c. oku-du-k mu-:-du

   read-perf.past.indic.-1pl QP-cop-past.indic

   'Was it the case that we read (it)?'

(5)   oku-ca (*-z) mı-:-mış-ız   *the z paradigm*

   read-fut-(1pl)QP-cop-evid.-1pl

   'Apparently, will we read (it)?'

3. If the functional heads in a high predicate in the combined predicate structures are spelled-out by a morpheme which takes the *z* paradigm markers, the person agreement markers always have to be realized overtly;

namely, they do not have the option of leaving the person marker position phonologically null as opposed to the *k* paradigm. Remember that if the *k* paradigm follows the high predicate in the question forms, it has the option of not being pronounced overtly as long as it is realized overtly on the low predicate as shown in Table 5.

(6) a. gel-se-k mi-:-miş *(-iz)   *the z paradigm on the high predicate*

    come-cond-1pl QP-cop-evid-(1pl)

   'Does this mean that we should have come?'

  b. oku-du-k mu-:-du (-k)   *the k paradigm on the high predicate*

    read-perf.past.indic.-1pl QP-cop-past.indic-(1pl)

   'Was it the case that we read (it)?'

The full paradigms are given in the tables below:

Table 5 Low Predicate +*k* Paradigm +cop+High Predicate+ *k* Paradigm

Affirmative	
	V+ -DI+ Ø +cop+ -DI +*Agr*
1sg	gel-di-:-di-m 'I had come.'
2sg	gel-di-:-di-n 'You had come.'
3sg	gel-di-:-di-n 'He/She/It had come.'
1pl	gel-di-:-di-k 'We had come.'
2pl	gel-di-:-di-niz 'You had come.'
3pl	gel-di-:-di-(ler) 'They had come.'

Question			
	V+ -DI+ *Agr* mI+cop+-DI +*Agr*	…… Ø……..*Agr*	..... *Agr*…….. Ø
1sg	gel-di-m mi-di-m 'Had I come?'	gel-di mi-:-di-m	? gel-di-m mi-:-di
2sg	gel-di-n mi-di-n 'Had you come?'	gel-di mi-:-di-n	? gel-di-n mi-:-di
3sg	gel-di-0 mi-di-n/0 'Had he/she/it come?'	gel-di mi-:-di-n	? gel-di-0 mi-:-di
1pl	gel-di-k mi-di-k 'Had we come?'	gel-di mi-:-di-k	? gel-di-k mi-:-di
2pl	gel-di-niz mi-di-niz 'Had you come?'	gel-di mi-:-di-niz	? gel-di-niz mi-:-di
3pl	gel-di-(ler) mi-di-(ler) 'Had they come?'	gel-di mi-:-di-(ler)	gel-di-ler mi-:-di

Table 6 Low predicate +*z Paradigm +cop+High Predicate+ *k* Paradigm

Affirmative		
	V+ -(I)yo+ Ø +cop+ -DI+<u>*Agr*</u>	
1sg	gel-iyo-:-du-m 'I was coming.'	
2sg	gel-iyo-:-du-n 'You were coming.'	
3sg	gel-iyo-:-du-n 'He/She/It was coming.'	
1pl	gel-iyo-:-du-k 'We were coming.'	
2pl	gel-iyo-:-du-nuz 'You were coming.'	
3pl	gel-iyo-:-du-(lar) 'They were coming.'	

Question		
	V+ -(I)yo+Ø mI+cop+-DI +<u>*Agr*</u>	......<u>*Agr*</u>........<u>*Agr*</u>
1sg	gel-iyo mu-:-du-m 'Was I coming?'	*gel-iyo-n mu-:-du-m
2sg	gel-iyo mu-:-du-n 'Were you coming?'	*gel-iyo-n mu-:-du-n
3sg	gel-iyo mu-:-du-n 'Was he/she/it coming?'	gel-iyo-0 mu-:-du-n[44]
1pl	gel-iyo mu-:-du-k 'Were we coming?'	*gel-iyo-z mu-:-du-k
2pl	gel-iyo mu-:-du-nuz 'Were you coming?'	*gel-iyo-nuz mu-:-du-nuz
3pl	gel-iyo mu-:-du-(lar) 'Were they coming?'	*gel-iyo-lar mı-:-dı-lar
	..... <u>*Agr*</u>......... Ø	
1sg	*gel-iyo-n mu-:-du	
2sg	*gel-iyo-n mu-:-du	
3sg	gel-iyo-0 mu-:-du[45]	
1pl	*gel-iyo-z mu-:-du	
2pl	*gel-iyo-nuz mu-:-du	
3pl	gel-iyo-lar mı-:-dı[46]	

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[44] The form is grammatical because the third sg is always realized as null on the low predicate resulting in no difference compared to the form on the left column.

[45] See footnote 44.

[46] The third plural form *-lAr* always shows a different pattern compared to the other person agreement markers and receives a wide attention in the literature (i.e. Göksel, 2006 and references therein). Its exact nature will not be dealt with in this thesis.

Table 7 Low Predicate+*k* Paradigm+cop+High Predicate+*z* Paradigm

Affirmative

	V+ -sA+ Ø +cop+ -mIş+*Agr*[47]	
1sg	gel-se-:-miş-im/in	'Apparently, if I had come.'
2sg	gel-se-:-miş-in	'Apparently, if you had come.'
3sg	gel-se-:-miş-0	'Apparently, if she/he/it had come.'
1pl	gel-se-:-miş-iz	'Apparently, if we had come.'
2pl	gel-se-:-miş-iniz	'Apparently, if you had come.'
3pl	gel-se-:-miş-(ler)	'Apparently, if they had come.'

Question

	V+ -sA+ *Agr* mI+cop+ -mIş+*Agr*	...... Ø ....*Agr*
1sg	gel-se-m mi-:-miş-im	gel-se mi-:-miş-im
2sg	gel-se-n mi-:-miş-in	gel-se mi-:-miş-in
3sg	gel-se-0 mi-:-miş-0	gel-se mi-:-miş- 0
1pl	gel-se-k mi-:-miş-iz	gel-se mi-:-miş-iz
2pl	?gel-se-niz mi-:-miş-iniz[48]	gel-se mi-:-miş-iniz
3pl	?gel-se-ler mi-:-miş-ler	gel-se mi-:-miş-ler

	..... *Agr*........Ø
1sg	*gel-se-m mi-:-miş
2sg	*gel-se-n mi-:-miş
3sg	*gel-se-0 mi-:-miş
1pl	*gel-se-k mi-:-miş
2pl	*gel-se-niz mi-:-miş
3pl	gel-se-ler mi-:-miş[49]

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[47] Note that a combination of two complex predicates where the functional heads in the low predicate are spelled out by *-DI* and the functional heads in the high predicate are spelled-out by *-mIş* is impossible as shown in chapters 3 and 4. The example for low predicate+*k* paradigm+high predicate+*z* paradigm is only possible where the low predicate is spelled-out by the morpheme *-sA* and the high predicate is spelled-out by the morpheme *-mIş*.

[48] This form is not very preferable although not considered as ungrammatical.

[49] See footnote 46.

Table 8 Low Predicate+*z Paradigm+High Predicate+z Paradigm

	Affirmative	
	V+ -(I)yo+ Ø +cop+ -(A)cA(K)+*Agr*	
1sg	gel-iyo ol-ca-n	'I will be coming.'
2sg	gel-iyo ol-ca-n	'You will be coming.'
3sg	gel-iyo ol-cak-0	'He/She/It will be coming.'
1pl	gel-iyo ol-ca-z	'We will be coming.'
2pl	gel-iyo ol-ca-nız	'You will be coming.'
3pl	gel-iyo ol-cak –(lar)	'They will be coming.'

	Question [50]	
	V+ -(I)yo+ Ø mI+cop+ -(A)cA(K)+*Agr*	......*Agr*........*Agr*
1sg	gel-iyo mu ol-ca-n 'Will I be coming?'	*gel-iyo-n mu ol-ca-n
2sg	gel-iyo mu ol-ca-n 'Will you be coming?'	*gel-iyo-n mu ol-ca-n
3sg	gel-iyo mu ol-cak-0 'Will he/she/it be coming?'	gel-iyo-0 mu ol-cak-0[51]
1pl	gel-iyo mu ol-ca-z 'Will we be coming?'	*gel-iyo-z mu ol-ca-z
2pl	gel-iyo mu ol-ca-nız 'Will you be coming?'	*gel-iyo-nuz mu ol-ca-nız
3pl	gel-iyo mu ol-cak-(lar) 'Will they be coming?'	*gel-iyo-lar mı ol-cak-lar

	..... *Agr*........ Ø
1sg	*gel-iyo-n mu ol-cak
2sg	*gel-iyo-n mu ol-cak
3sg	gel-iyo-0 mu ol-cak[52]
1pl	*gel-iyo-z mu ol-cak
2pl	*gel-iyo-nuz mu ol-cak
3pl	*gel-iyo-lar mı ol-cak

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[50] There are two different possibilities for making questions with the predicates whose low and high predicates both are the nominal participles. The first possibility is the one shown in the Table 8 where the question particle follows the low predicate. The second possibility is the one where the question particle follows the high predicate as shown in (i).

(i) gel-iyo ol-ca-z mı
come-imperf.pres.indic cop-fut-1pl QP
'Will we be coming?'

I show the first possibility in the table because I want to compare the question forms of the predicates where the copula *ol-* is seen with the question forms of the predicates, where the copula *i-* is seen and the question particle always follows the low predicate. Why the question particle has different positions in those predicates is the out of the scope of this chapter and will not be discussed.

[51] See footnote 44.

[52] See footnote 44.

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In light of these observations, the general question is the following: Why do we see different patterns with the *k* and *z* paradigms? Do they have different syntactic positions or functions? In the next section, I will try to give an answer to this question and claim that the probes for the *k* and *z* paradigms have different syntactic positions, the former being inside the predicate and the latter being on a higher level than the predicate (I assume it to be the C level, following Miyagawa (2010)).

5.3.2 Analysis of the Difference between the *k* and *z* Paradigms

The *k* and *z* paradigms respectively, show differences in coordination. The coordination of the internal parts of words are referred to in the literature as *suspended affixation* (Lewis, 1967). In the coordination structures with the suspended affixation forms, "…certain affixes can be omitted from all conjuncts other than the final one while maintaining their semantic scope over the whole construction" (Kabak, 2007: 312). In (7b) the *z* paradigm person agreement marker -*z* is suspended; namely, it is omitted from the first conjunct but remains on the second conjunct. However, it maintains the semantic scope on the whole coordination phrase.

(7) a. oku-yo-z ve anlat-ıyo-z   coordination without suspended affixation

     read-imperf.pres.indic-2sg and explain-imperf.pres.indic-1pl

    'We are reading and explaining it.'

  b. [oku-yo ve anlat-ıyo]-z   suspended affixation of the *z* paradigm

    [read-imperf.pres.indic and explain-imperf.pres.indic]-1pl

    'We are reading and explaining it.'

(8) a. oku-du-k ve anlat-tı-k   coordination without suspended affixation

     read-perf.past.indic-1pl and explain-perf.past.indic-1pl

     'We read and explained it.'

    b. *[oku-du ve anlat-tı]-k   suspended affixation of the *k* paradigm

     [read-perf.past.indic and explain-perf.past.indic]-1pl

     'We read and explained it.'

As seen in (7b), the coordination of nominal participles with the suspended affixation of the *z* paradigm person agreement marker gives a grammatical result, although as in (8b) the coordination of the verbal elements with the suspended affixation of the *k* paradigm person agreement marker is ungrammatical. However, note that without the suspended affixation, the coordination of verbal predicates is possible as in (8a).

I claim following Bayırlı (2012) that verbs and verbal predicates cannot be coordinated because they are not phrasal, but rather show the characteristics of heads. Following Kayne (1994), Bayırlı claims that only phrasal elements can be coordinated not the heads. The ungrammaticality of the suspended affixation of the *k* paradigm person agreement marker in (8b) is the result of this. Because verbs are heads, they cannot be coordinated. However, the coordination of the verbal predicates when they carry the person agreement markers on them is grammatical as in (8a), and we can conclude that with the existence of overt person agreement a verbal predicate can behave phrasally, allowing its coordination.

So, the ability of the *z* paradigm to take scope over the coordinated phrase unlike the *k* paradigm shows that the two person agreement paradigms have different syntactic/morphological properties. The former can detach from the nominal

predicate and cliticize to the coordination phrase whereas the latter should always follow the verbal predicate and cannot be detached from it.

I claim that the reason for the different patterns of the *k* and *z* paradigms is that the *k* paradigm is realized above the functional head M which is the uppermost head in the predicate (single or each predicate in the combined predicates),[53] but it is inside the predicate level, while the *z* paradigm is realized in the C domain and it is out of the predicate, which is higher than the place where the *k* paradigm is realized. The idea of the realization of person agreement on C level is proposed in Miyagawa (2010) and I adopt this idea for the *z* paradigm, but not for the *k* paradigm. I further claim that the reason why the *k* paradigm is suffixed on the verbal predicate and the *z* paradigm is cliticized on to the nominal predicates is a result of their different syntactic positions.

In order to support my claim about the verbal and nominal person agreement paradigms in DD, in the next section I will analyze suspended affixation structures with combined predicate structures.

5.3.2.1 Coordination of Combined Predicates

The *k* and *z* paradigms show the following differences in suspended affixation structures of the predicates where two complex predicates combine. When the low predicate is a nominal participle the coordination of the two such predicates are possible with the suspended verbal affixation of the high predicate, which takes scope over the coordinated phrase as in (9a). The realization of the *z* paradigm person agreement on the low predicates makes the structure ungrammatical as in (9b).

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[53] See Chapter 3 for details.

(9) a. [gel-iyo ve gid-iyo]-:-du-k

    [come-imperf.pres.indic and go-imperf.pres.indic]-cop-past.indic-1pl

    'Were were coming and going.'

  b. *[gel-iyo-z ve gid-iyo-z]-:-du-k

    [come-imperf.pres.indic-1pl and go-imperf.pres.indic-1pl]-cop-past.indic-

    1pl

    'We were coming and going.'

When the low predicate is verbal, the coordination of two such predicates with suspended affixation of the high predicate makes the sentence ungrammatical as shown in (10a), as opposed to (9a). However, similar to (9b), when the low predicates have the person agreement markers on them, the structure is still ungrammatical as shown in (10b). The coordination of the verbal predicates is only possible when the first low predicate takes person agreement marker on it, but not the second low predicate as in (10c).

(10) a. *[gör-dü de beğen-di]-:-di-k[54]

    [see-perf.past.indic and like-perf.past.indic]-cop-past.indic-1pl

    'It was the case that we saw and (then) liked it.'

  b. *[gör-dü-k de beğen-di-k]-:-di-k

    [see-perf.past.indic-1pl and like-perf.past.indic-1pl]-cop-past.indic-1pl

    'It was the case that we saw and (then) liked it.'

---

[54] The informants do not use the coordination structures with 've' meaning 'and' in suspended affixation very often but they prefer 'dA' which also has a meaning similar to 've' but it somehow has 'and then' meaning. That is why I prefer to use 'dA' in these examples. See Göksel and Kerslake (2005) for the details about the other meanings and function of 'dA'.

c. [gör-dü-k de beğen-di]-:-di-k

[see-perf.past.indic-1pl and like-perf.past.indic]-cop-past.indic-1pl

'It was the case that we saw and (then) liked it.'

Normally, when looked at the suspended affixation structures generally (for example the structures in (7b) and (9a)), it is surprising to come across the grammatical structure in (10c) (see also Kabak, 2007). It is surprising because if we think that coordination phrase is a whole and the suspended affixation part (-*:dik* in this case) taking scope over the whole phrase, the two elements inside the coordination phrase should be identical. In our case in (10c) the first conjunct has the person agreement marker on it whereas the second conjunct does not. If it has the person agreement the result is ungrammatical as in (10b). So, the question is the following:

(11) Why can the *k* paradigm person agreement not be seen on the second

element of the coordination phrase, but only on the first element?

In Section 5.3.2.1.1, I will try to give an account for why we see such a surprising coordination structure with suspended affixation.

However, before going on I want to compare the structure in (10c) with the structure in (12) where the person agreement is overtly marked on the first element (nominal) of the coordination phrase but not on the second element, which is similar to the structure in (10c) except that the coordinated elements are verbal in the latter. The former (12) gives an ungrammatical result while the latter (10c) is grammatical.

(12) *[oku-yo-z da anlat-ıyo]-:-du-k

[read-imperf.pres.indic-1pl and explain-imperf.pres.indic]-cop-past.indic-

1pl

Intended meaning: 'We were reading and (then) explaining it.'

Note that one can relate the ungrammaticality of (12) to the fact that the first element of the coordination phrase, namely 'oku-yo' takes the *z* paradigm marker while the high predicate '*-:-du*' takes the *k* paradigm marker, which would result in morphological incompatibility between the two agreement paradigms when used in the same predicate. However, this is not the case because when the high predicate is spelled-out by a lexical item which takes the *z* paradigm marker, the structure is still ungrammatical as shown in (13).

(13) *[oku-yo-z da anlat-ıyo]-:-muş-uz

[read-imperf-1pl and explain-imperf]-cop-evid-1pl

Intended meaning: 'Apparently, we were reading and (then) explaining it.'

So, the question is the following:

How do we get the grammatical result from the structure in (10c) while the structures in (12) and (13) are ungrammatical?

As an answer to the question, why the *z* paradigm cannot occur in the predicate internal position, I claim that the *z* paradigm is realized at a higher level than the *k* paradigm. I assume this position to be C level above the predicate structure, while the *k* paradigm is realized above the highest functional phrase level of the predicate but it is still internal to the whole predicate structure. Namely, it

occurs inside the predicate as opposed to the *z* paradigm which occurs outside the predicate.

In order to capture the differences between the places of the *k* and *z* paradigm person agreement, I suggest that there exists a PredP on each predicate structure (single or each predicate in the combined predicate structures) (following Baker, 2008[55], Bowers, 2010) Verbal predicates have the Pred head above the person agreement and this Pred Phrase requires verbal person agreement inside it as shown in (14), which makes the verbal predicate phrasal. Otherwise, the predicate cannot behave phrasally and not coordinated.

(14)

```
                          CP
                         /  \
                      PredP    C
                     /    \
              k paradigm   Pred (verbal)
              /      \
            MP      k paradigm
           /  \
          …
```
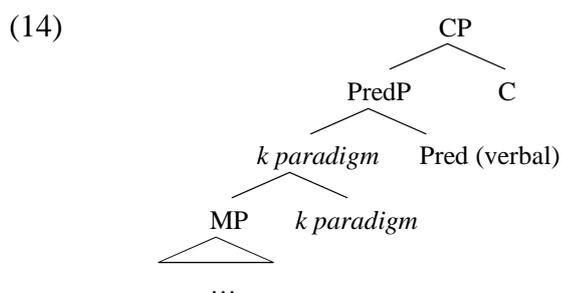
On the other hand, the Pred head is merged just above the nominal predicates and does not require the person agreement to be realized inside it, so the nominal predicates are already phrasal even in the absence of the person agreement, which is merged above the PredP as shown in (15).

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[55] Baker (2008) distinguishes among the syntactic positions of the agreement on verbal elements, adjectives and nominals and claims that verbal agreement is done on the functional category T/Infl, which selects the verb phrase and often fuses with it forming a single phonological word. However, for the adjectival and nominal agreement, he claims that they are done on a higher level than the functional categories, which he calls as PredP. This claim is somewhat related to what I claim here in that verbal agreement is realized above the highest functional head inside a predicate, whereas nominal/participle or adjectival agreement happens in a higher level which I suggest as CP but differing from Baker I claim it to happen outside the PredP. Baker bases this claim mainly on the languages where verbal elements agree with the first and second person features while adjectives and adverbs do not. Turkish seems to be a counterexample to what he claims because the nominal agreement in Turkish is realized in both the first and second persons as in verbal agreement. Baker claims that the nominal agreement is realized on auxiliary, so a kind of verbal agreement showing the agree relation with the first and second persons. However, I do not agree with this idea. See footnote 5 for the reason why I do not agree with it.

(15)

$z\ paradigm$

PredP $z\ paradigm$ } C domain

MP   Pred (nominal)

….
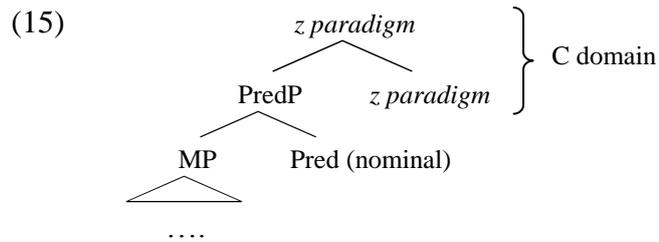
In light of the data presented in Section 5.3.1 Table 5, it is seen that even in the combination of two complex predicates the *k* paradigm can be realized on the low predicate and high predicate separately (in the question forms) as shown in (4a) repeated here as (16). I will explain how this is possible in Section 5.3.3.3.2, but in the next section I will answer the question posited in (11) above.

(16) oku-du-k mu-:-du-k

read-perf.past.indic.-1pl QP-cop-past.indic-1pl

'Was it the case that we read (it)?'

5.3.2.1.1 Verbal Agreement inside the Coordinated Structure

In this section, I will return to the question posited in (11) above and repeated here as (17).

(17) Why can the *k* paradigm person agreement not be seen on the second element of the coordination phrase, but only on the first element as shown in (18)?

(18) [gör-dü-k de beğen-di (*-k)]-:-di-k

     [see-perf.past.indic-1pl and like-perf.past.indic(-1pl)]-cop-past.indic-1pl

     'It was the case that we saw and (then) liked it.'

As an answer to this question, I suggest that the copula blocks an overt person agreement lexicalization on the second conjunct when it is cliticized to the coordination phrase (it cliticizes to the second conjunct), the exact reason of which is unclear to me at this point.

     The blockage effect of the copula can be broken by the QP *mI* in the suspended affixation forms as shown in (19). Namely, the second conjunct has also person agreement marker on it if the QP is cliticized to the coordinated phrase.

(19) [gör-dü-k de beğen-di-k] mi-:-di-k

     [see-perf.past.indic.-1pl and like-perf.past.indic-1pl] QP-cop-past.indic-1pl

     'Was it the case that we saw and (then) liked it?'

In the next section, I will analyze the syntactic position and function of the *k* and *z* paradigms and the mechanism behind the realization of them.

5.3.3 Person Agreement as a Functional Relation between the Argument Structure and the Functional Structure

The purpose of agreement has been questioned by many linguists from various perspectives, but there is no common belief on why it is realized. Some languages have different agreement patterns whereas some languages have been argued to lack

person agreement system at all, such as East Asian languages. Some linguists such as Pesetsky and Torrego (2007) think of (person) agreement as "feature sharing" between the subject and the verbal inflection. This has been described as an asymmetric relation between the goal/controller and the probe/target in Chomsky (2000, 2001, 2005, 2007, 2008). (See also Anderson, 1992, Pesetsky and Torrego, 2007, Miyagawa, 2010). A *probe/target* is an uninterpretable feature on a functional category and the *goal/controller* (the subject) deletes this uninterpretable feature by the operation *Agree*. In the next section I will summarize the minimalist approaches to the person agreement.

5.3.3.1 Minimalist Approaches to Person Agreement

In Chomsky (1993, 1995) syntactic agreement is argued to be established via specifier-head relation between the agreement *controller* (the argument) and the agreement *target* (the predicate). Thus, agreement relation is established by the A-movement of the argument to the specifier position of a functional head. These functional heads are assumed to be Agrs and Agro in Chomsky (1993), but T and v in Chomsky (1995), which attract the inflected verb. Overt movement is triggered by the 'strong' features of a given functional head and those features need to be eliminated prior to the Spell-out.

In the Minimalist Program, the nature of agreement is completely revised and a different model is proposed (Chomsky, 2000, 2001). The syntactic operations check off (or value) the set of non-interpretable/non-valued features on the functional categories T/v and those are triggered by the ϕ-set. This feature checking is dissociated from DP movement to the specifier position of the functional head but

assumed to occur in situ. Namely, the non-interpretable features (ϕ-features) located in T/v access the interpretable ϕ-set of the argument without any movement operation. This operation is called *Agree* and it establishes a relation between a lexical item (LI) α and a feature F in a restricted search domain. The feature set which starts the Agree operation is called the probe (the unvalued ϕ-set on T/v) and the feature set with which the probe establishes a relation is called the goal (ϕ-set of the argument). When this relation holds, the non-interpretable features on T/v are deleted but the ultimate deletion is delayed until the Spell-out. The core properties of the *Agree* operation are summarized below (Chomsky, 2000: 122).

(i)   Matching is a relation that holds of a probe P and a goal G. Not every matching pair induces Agree. To do so, G must (at least) be in the *domain* D(P) of P and satisfy locality conditions. The simplest assumption for the probe-goal system are:

    a. Matching is feature identity.
    b. D(P) is the sister of P.
    c. Locality reduces to "closest c-command".

Miyagawa (2010) suggests that although the *Agree* operation captures the properties of agreement, it does not present any reason why a relation between probe and goal should be maintained in order to delete uninterpretable features. Still adopting this idea, Miyagawa suggests that agreement establishes a functional relation between the argument structure of an expression which he calls lexical relations and the functional layer/heads which he calls functional relations. Such a relation has to be

established because lexical relations are thematic relations (established by external merge) and functional relations "…enhance the expressive power of the language by providing the tools to express such notions as topic-comment, subject of a clause, focus, and content questions" by using the argument layer (p. 8). Thus, the establishment of a relation between lexical relations and functional relations is necessary, and this relation is formed by agreement. [56]

Miyagawa also follows the idea of phases (Chomsky, 2001) and considers the vP phase as the complete argument structure layer and the CP phase as the expression layer. He suggests that the ϕ-feature agreement is merged on the C head (on a phase head) and the ϕ-probe is inherited by T or some related functional head, further suggesting that the relation that agreement establishes occurs in C level. Whereas the ϕ- probe originates at C, it does not enter into an Agree relation until it is inherited by a lower functional head, such as T.

Miyagawa shows empirical evidence for assuming that agreement begins at the C level based on English ECM constructions which do not involve a CP but a bare TP. The lack of agreement in ECM constructions in English supports this assumption. Namely, if there is no CP, the agree relation cannot be established. (See Miyagawa, 2010 for further conceptual discussions on this assumption.)

Assuming that the agreement relation begins at C head, Miyagawa questions why a lower functional head such as T should inherit the ϕ-probe on C and as a reason for this inheritance, he assumes the reason Chomsky gives when he proposed feature inheritance (Chomsky 2005, 2008). The feature inheritance enables A-chains and without the inheritance of ϕ-probe by T it would result in A' movement. The A

---

[56] Miyagawa (2010) presents evidence for the presence of person agreement in East Asian languages such as Japanese and claims that the relation established by the agreement is the case for all languages.

movement of the subject to spec, TP is necessary because T is assumed to assign Case to the subject, making it visible for the Agree relation.

5.3.3.2 Miyagawa (2010) and the Person Agreement

Whether the subject is required to undergo movement or the Agree relation can be established in-situ is beyond the scope of this thesis. I will assume that agreement is a functional relation between lexical relations (argument structure, vP level) and functional structure following Miyagawa (2010) and will adopt Agree operation proposed by Chomsky (2000, 2001, 2005, 2007, 2008). However, I will claim that there are two different types of agreement in DD.

One type of agreement I will claim is verbal agreement and realized as the *k* paradigm. It establishes the relation between the argument structure and the highest functional structure inside a predicate. However, I will not assume that this type of agreement originates at C, contra Miyagawa (2010). The other agreement type, which is realized on non-verbal predicates, is the *z* paradigm. This paradigm occurs outside the predicate and is in a higher level than the *k* paradigm. I assume that this layer is CP, as claimed by Miyagawa (2010). However, whether ϕ-probe is inherited by a lower functional head inside a predicate requires further research. Even if we assume this, there would still be a difference between the *k* paradigm which does not originate at the C level and the *z* paradigm which would begin at C and then get inherited by the lower functional layer. I leave this issue for further investigation.

The reason why the *z* paradigm, but not the *k* paradigm, originates at the C level might be due to the following reason, based on Miyagawa (2010). Miyagawa suggests that the topic/focus relation is the same kind of relation with agreement and

presents historical evidence for the relation between the two. It is assumed that subject agreement morphology develops from subject pronouns and this process is about the topicalization (Givon, 1976). The topicalized subject leaves a pronoun in its original position and the topicalized subjects, which move to the C layer, are probably reanalyzed as a part of verbal morphology. I will present evidence for why the *k* paradigm is not realized in C level in the following section.

The *z* paradigm has shown a similar historical development. In Old Turkic, there were no subject agreement markers, but the pronouns were realized at the end of the predicate as shown in (20) (Cited in Good and Yu, 2000).

(20) kel-ür ben

     come-aor 1sg

     'I come.'

Later, those pronouns have undergone morphological shifts and have been realized as the cliticized *z* paradigm. However, the origin of the *k* paradigm is not similar to the origin of the *z* paradigm. The morpheme *-d-* in (21) used to be a nominalizer suffix and the suffix-*um* was the first person singular possessive suffix. The *-d-* morpheme and the vowel of the person agreement suffixes were reanalyzed later as past tense marker and the former possessives were treated as the subject agreement markers on the past tense (cited in Good and Yu, 2000).[57]

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[57] See also Tekin (1968) and Erdal (2004).

(21) qil-d-um

    do-nom-1sg poss

   'My action of doing'

In the following section, I will analyze the *k* paradigm person agreement as a functional relation between the argument structure and the functional layer inside the predicate.

5.3.3.3 The *k* Paradigm as a Functional Relation inside a Predicate

The data regarding the *k* paradigm in DD which is presented in Sections 5.3.1 and 5.3.2 are summarized below:

1. The *k* paradigm can only occur above the high predicate in the predicate structures where at least two predicates are combined in the affirmative sentences as shown in (22).

(22) a. oku-du-:-du-k

    read-perf.past.indic- cop-past.indic-1pl

   'It was the case that we read (it).'

  b. *oku-du-k-0[58]-du-k

    read-perf.past.indic-1pl-cop-past.indic-1pl

    Intended meaning: 'It was the case that we read (it).'

---

[58] Remember that when *-y*, the cliticized form of the copula *i-*, is inserted between two consonants, it becomes null, see Chapter 3.

2. In question forms, the *k* paradigm can optionally be realized on the low

    predicate even when it is realized on the high predicate at the same time as

    shown in (23).

(23) a. oku-du-k mu-:-du-k

        read-perf.past.indic-1pl QP-cop-past.indic-1pl

      'Was it the case that we read (it)?'

    b. oku-du mu-:-du-k

        read-past QP-cop-past-1pl

      'Was it the case that we read (it)?'

    c. ? oku-du-k mu-:-du[59]

        read-past-1pl QP-cop-past

      'Was it the case that we read (it)?'

3. In coordination, the *k* paradigm is obligatorily realized on the first low

    predicate of the coordinated phrase but cannot be realized on the second low

    predicate as in (24).

(24) a. [gör-dü-k de beğen-di]-:-di-k

        [see-perf.past.indic-1pl and like-perf.past.indic]-cop-past.indic-1pl

      'It was the case that we saw and (then) liked it.'

    b. *[gör-dü-k de beğen-di-k]-0-di-k

        [see-perf.past.indic-1pl and like-perf.past.indic]-cop-past.indic-1pl

        Intended meaning: 'It was the case that we saw and (then) liked it.'

---

[59] This usage is not preferred and widely used, but still acceptable. See footnote 64 for a possible
reason why it is so.

I propose that the *k* paradigm can be seen on the low predicate in question forms and the first low predicate in coordinated forms because the *Agree* relation is also established on the low predicate at the same time with the agreement on the high predicate[60]. However, it is done covertly in the affirmative forms, overtly or covertly in question forms and overtly in coordination.

Let me introduce you to the agreement scenario of the *k* paradigm step by step in the sections 5.3.3.3.1, 5.3.3.3.2, and 5.3.3.3.3.

5.3.3.3.1 Verbal Agreement in Affirmative Forms- The Nature of Double Person Agreement

I propose that the low verbal predicate (spelled-out by *-DI* and *-sA*) bears a person probe on it and person agreement also occurs on it which is controlled by the agreement on the high predicate (*k* paradigm).[61] The fact that it is controlled by the higher person agreement means that it has the same number and person features as the one on the high predicate. However, the agreement on the low verbal predicate is not overtly realized when the low predicate is immediately followed by the copula.

The agreement system of a predicate which consists of more than one complex predicate structure can be shown in (25). I show the agreement on the low predicate which is realized covertly with the Ø symbol.[62]

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[60] Thanks to Isa Kerem Bayırlı for the inspiration that he gave to me to find this idea.

[61] It can also be controlled by nominal agreement which I will mention in Section 5.3.3.3.4.

[62] Note that with the symbol Ø, I do not mean only the third person null form here, but I represent the covert agreement on the low predicate with it. It can be any person, not only the third person.

(25) a. low predicate (verbal)+Ø+cop+high predicate (verbal/nominal)+Agr

Agr controls Ø

b[63].

---
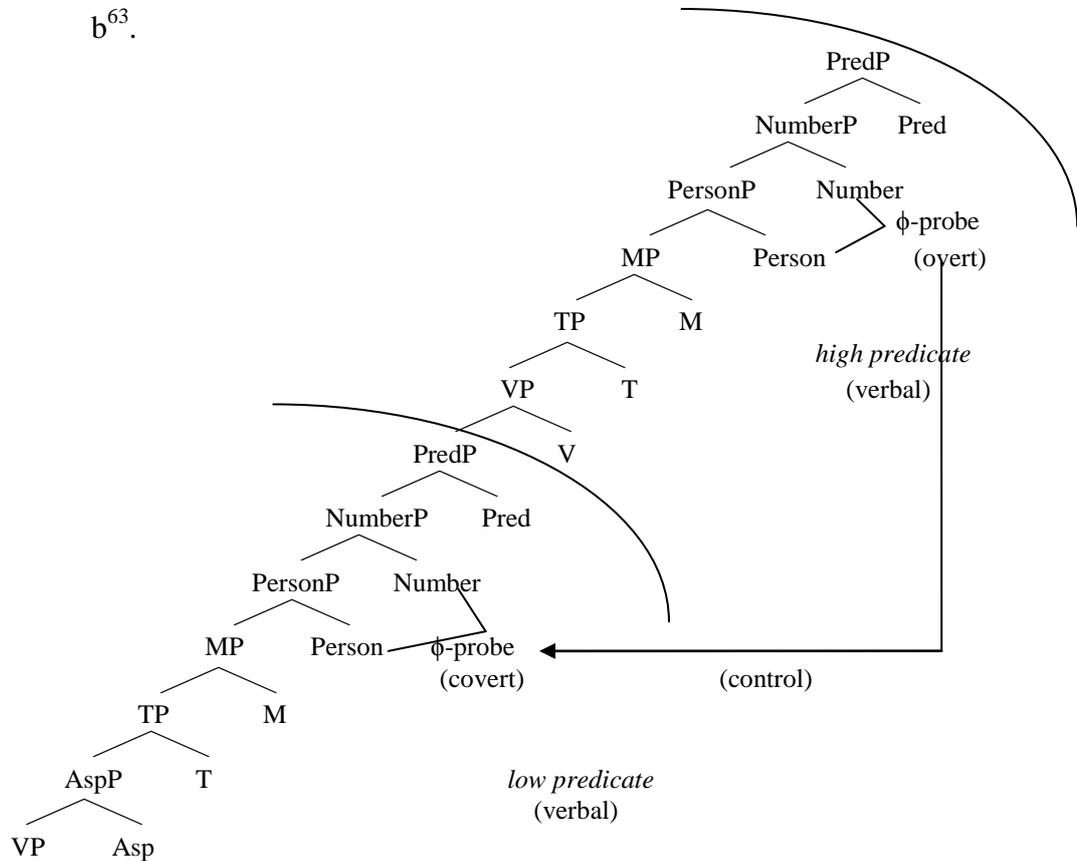
[63] In this tree structure I only show Person P and Number P as the functional layers of the agreement to represent the person and number categories respectively. I also assume that those phrases have internal structures with a hierarchical relation as following: The lowest head of the PersonP is the Person (representing the default third person), and Participant and Speaker heads are respectively in higher positions, which all are the members of the set of person category. Above the Person nodes, there are the Number nodes which are singular and plural, the latter being in the highest position of all. Those details are not relevant to the discussion in this section but will be mentioned and shown in Section 5.4.

c.

NumberP
├─ PersonP ─ Number
│   └─ φ-probe (overt)
│ └─ PredP ─ Person
│   └─ MP ─ Pred
│   └─ TP ─ M
│   └─ VP ─ T
│   └─ V

high predicate (nominal)

PredP ─ V
├─ NumberP ─ Pred
│ └─ PersonP ─ Number
│   │   └─ φ-probe (covert)
│   └─ MP ─ Person
│   └─ TP ─ M
│   └─ AspP ─ T
│   └─ VP ─ Asp

(control)

low predicate (verbal)
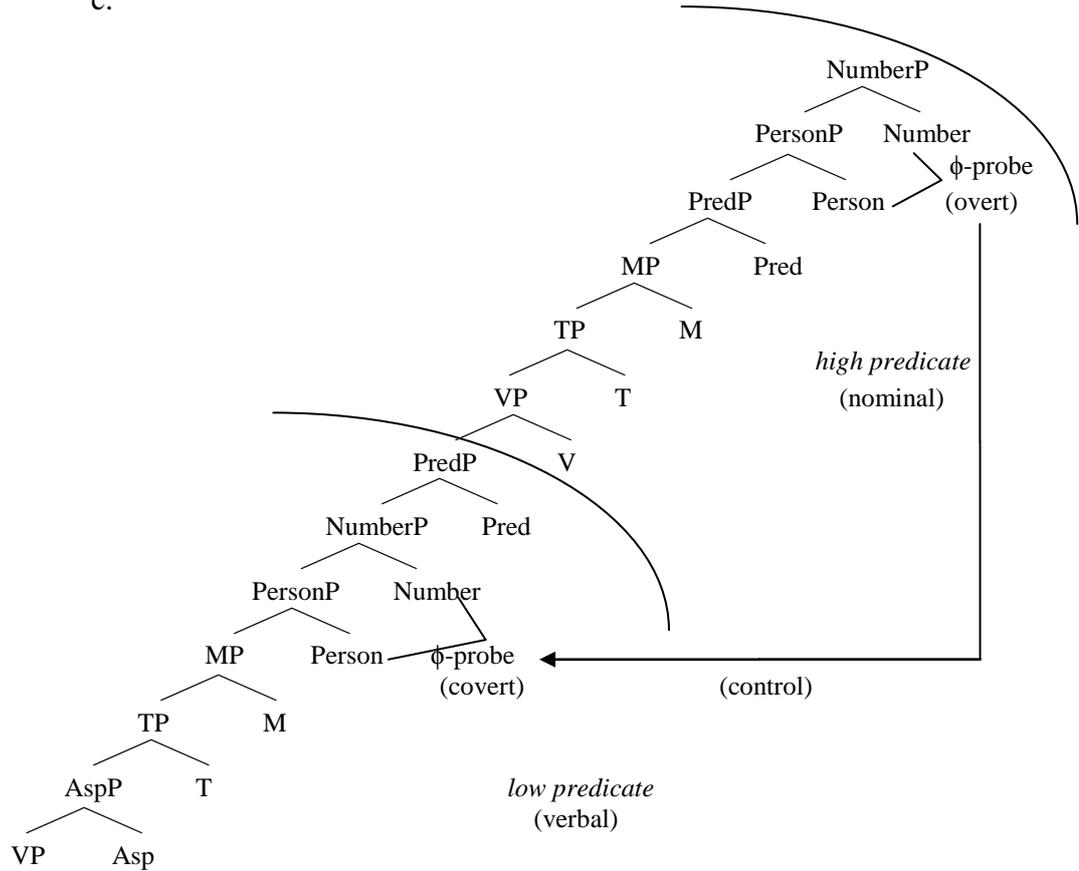
5.3.3.3.2 Verbal Agreement in Question Forms-The Nature of Double Person Agreement

When the question particle *mI* intervenes between the low predicate and the copula in the question forms, the agreement on the low predicate can optionally be spelled-out overtly by the *k* paradigm person agreement markers. Thus, the question forms of the predicate structures which consist of a low and a high predicate may have double overt agreement on them, which is mostly preferable in DD. One is on the low predicate, and the other is on the high predicate as in (26). The Agree relation in question forms can be shown in (27).[64]

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[64] Note that agreement can be overtly realized on the low predicate when it is covert on the high in the question forms. However, this is not preferred and widely used among DD speakers. The reason of the

(26) a. oku-du-(k) mu-:-du-k

read-perf.past.indic-1pl QP-cop-past.indic-1pl

'Was it the case that we read (it)?'

(27) a. low predicate+Agr+mI+cop+high predicate+Agr

b. low predicate+Ø+mI+cop+high predicate+Agr
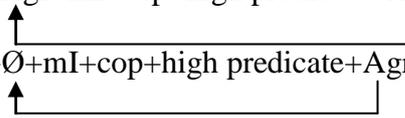
The copula blocks the overt person agreement preceding it, but the question particle *mI* removes this effect of the copula if it intervenes between the copula and the person agreement preceding it. Note that, *mI* makes the overt realization of the person agreement optional. The reason I suggest for why both the overt and the covert agreement on the low predicate in the question forms are grammatical is the following: One overt agreement in a combined predicate structure is enough for the derivation to be grammatical and it can either be on the low predicate or on the high predicate. This is the case only if both of them are verbal. If the low predicate is verbal but the high predicate is nominal, the nominal agreement has to surface overtly in all cases. The double overt agreement does not lead the derivation to crash as long as there is no blockage effect of the copula on it. So, in the cases where double agreement is possible (if the low predicate is verbal) with *mI*, the blockage effect disappears and both the overt and the covert options for the agreement on the low predicate become possible. Why and how the question particle *mI* does this remains a mystery left for future work.

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acceptability of this agreement might be that the at least one overt agreement is required in the combined predicate structure and the covert realization of the person agreement on its high predicate might be possible when the one on the low predicate is overt. This requirement, of course, does not ban the possibility of double agreement. But why it is not preferred among the speakers might be due to a dialectical choice.

5.3.3.3.3 Verbal Agreement in Coordinated Structures- The Nature of Double Person Agreement

The steps that I propose for the coordinated structure with the suspended affixation of the high predicate in (28) are the following:

(28) [gör-dü-k de beğen-di]-:-di-k

[see-perf.past.indic-1pl and like-perf.past.indic]-cop-past.indic-1pl

'It was the case that we saw and (then) liked it.'

1. The low verbal predicates are coordinated with 'dA' meaning 'and (then)'as shown below and the high predicate is suspended taking scope over the coordination phrase. Note that the low predicates have the person agreement on them. The agreement relations in both low predicates are established in order to make the verbal predicates phrasal for their coordination to be possible.

    [low predicate+Ø   de   low predicate+ Ø]+cop+high predicate+Agr
    [gör-dü- Ø   de   beğen-di- Ø]   -:   -di   -k

2. The Agreement slots on the low predicates are spelled-out overtly.

    [low predicate+Agr   de   low predicate+Agr]+cop+high predicate+Agr
    [gör-dü-k   de   beğen-di-k]   -:   -di   -k

3. The copula and the high predicate cliticize onto the second conjunct of the coordinated phrase and the copula blocks the overt realization of the agreement on the second predicate.[65] Because the copula is still away from the first low predicate, it does not block its overt realization.

low predicate+Agr   de   low predicate+ Ø +cop+high predicate+Agr

 gör-dü-k   de   beğen-di- Ø   -:   -di   -k

The verbal agreement on the second conjunct (the second low predicate) can optionally be realized overtly by the *k* paradigm person agreement markers when it is detached from the copula, for example, when the question particle *mI* intervenes between the agreement and the copula as shown in (29).

(29) [gör-dü-k de beğen-di-(k)]-mi-:-di-k

     [see-perf.past.indic-1pl and like-perf.past.indic]-QP-cop-past.indic-1pl

     'Was it the case that we saw and (then) liked it?'

In summary, the verbal agreement on the low predicate in affirmative sentences cannot be realized overtly because of the blocking effect of the copula. Although its reason is not obvious, it seems that the copula does not directly cliticize on the predicates ending with overt person agreement. However, the insertion of the QP *mI* between the agreement slot and the copula leads to the optionality of the overt realization of the agreement.

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[65] This structure is similar to the case of 'special clitics' in Anderson (1992).

The reason why we see the optional overt agreement on the second conjunct in the question forms is similar to the one that I discuss in Section 5.3.3.3.2. Namely, the question particle *mI* cliticizes onto the second conjunct and removes the blockage effect of the copula on the overt person agreement preceding it. Because both the overt and the covert agreement on the low predicate make the structure grammatical as long as there is an overt person agreement on the high predicate in the question forms, the second conjunct can optionally have overt person agreement.

In the coordination structures with the suspended affixation forms, the person agreement has to be realized overtly by the *k* paradigm on the first low predicate but not the second low predicate in the coordination phrase. As stated above, the covert realization of the person agreement on the second conjunct is due to the cliticization of the copula to this structure. Namely, somehow the copula blocks the overt agreement preceding it. A similar case is also attested in Kabak (2007) although in this case it is the cliticized person agreement (nominal agreement) which is the blocker of an overt element in the second conjunct.

Kabak (2007) observes that the aorist *-Ir* marker does not phonologically surface if it follows the negative marker *-mA* when the first person singular or plural agreement marker follows the aorist as shown in (30). In all the other cases, the aorist is realized as *-z* (such as in the negative and question forms and with the other person forms) as shown in (31).

    (30)   yüz-me-0-m

            swim-neg-aor-1sg

            'I don't swim.'

(31) yüz-me-z-sin

swim-neg-aor-2sg

'You don't swim.'

In coordination, the aorist is always realized overtly; otherwise, the structure

becomes ungrammatical as shown in (32a).

(32) a. *[yüz-me-0 ve uyu-ma-0]-m

[swim-neg-aor and sleep-neg-aor]-1pl

'I don't swim and sleep.'

b. [yüz-me-z ve uyu-ma-z]-sın

[swim-neg-aor and sleep-neg-aor]-2sg

'You don't swim and sleep.'

Kabak (2007) also observes that when the first element of the coordination phrase

has the overt aorist marker -z, but not the second element, the structure becomes

grammatical as in (33).[66]

(33) a. [yüz-me-z ve uyu-ma-0]-yız

[swim-neg-aor and sleep-neg-aor]-1pl

'We don't swim and sleep.'

b. *[yüz-me-z ve uyu-ma-z]-ız

[swim-neg-aor and sleep-neg-aor]-1pl

'We don't swim and sleep.'

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[66] Kabak states that this structure is fully grammatical with the first plural agreement while it is
awkward but not ungrammatical with the first singular form without any apparent reason.

I suggest that the reason why the overt realization of the aorist on the first predicate inside the coordination phrase makes the structure grammatical is the same as the reason why the *k* paradigm person agreement marking on the first low predicate inside the coordination phrase makes the structure grammatical as in (28).

The reason why the aorist has to be in the null form in the second element of the coordination phrase in (33a) is that the first plural person agreement *-yız* cliticizes to the second element of the coordination phrase and blocks the overt realization of the aorist similar to the case in (28), where the overt realization of the person agreement on the second low predicate of the coordination phrase is blocked after the cliticization of the copula to the phrase. However, I do not have an explanation for why clitics taking phrasal scope such as the copula and the person agreement marker *-yız* have such a blocking effect.[67] Remember that when the suspended affixed clitic is the QP *mI*, the person agreement is optionally overtly realized, so there is no blockage effect of the clitic QP on the overt person agreement realization. The fact that the copula blocks the overt person agreement and the clitic person agreement blocks the overt aorist marker in the suspended affixation forms cannot be due to their being clitics because the QP *mI* is also a clitic but does not show such a behavior.[68]

Leaving the exact reason behind the blockage effect of the copula and the clitic person markers for further research, I will discuss the nature of the verbal person agreement on the low predicate of a combined predicate structure.

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[67] In some dialects of Turkish the overt agreement before the copula is attested as in (i) but in this case there is no overt agreement on the high predicate. It might be due to 'stuttering prohibition' which is a constraint against immediate sequences of the same types of morphemes (see Kornfilt, 1986 and Göksel, 1997).
  (i) gel-di-k-0-ti
       come-perf.past.indic-1pl-cop-past.indic
       'It was the case that we came.'

[68] See Göksel and Kerslake (2005) for the properties of the QP *mI* as a clitic.

5.3.3.3.4 The Nature of the Verbal Person Agreement on the Low Predicate

Why do we have an extra agreement on the verbal low predicate?

The answer I suggest for this question is the following: Each predicate whether single or combined (low and high) predicate structures have a Pred projection on them. The verbal predicate requires person agreement in order for the Pred head above it to project, and another predicate can be merged above this PredP. Since the verbal person agreement is internal to the PredP (not in a higher place than the predicate level), it allows another PredP to be merged in a hierarchically higher place. So, there is nothing to prevent the verbal agreement relation to be established on the low predicate as well as on the high predicate.

However, this situation is not seen if the low predicate has a nominal nature. Namely, in a combined predicate structure whose low predicate is nominal the agreement relation cannot be established on the low predicate. The Pred projection occurs immediately above the nominal predicate and the nominal agreement relation is established outside this PredP in the C level. Once agreement occurs on the nominal predicate it means that another PredP cannot be merged above this nominal predicate because the structure is already in the C domain by the nominal agreement. As a result of this, nominal agreement cannot occur on the low predicate of a combined predicate structure because it can be established when the C head is merged in the structure. That is why the nominal agreement does not allow further Pred projections.

Another crucial question is the following: By which agreement type can the verbal agreement on the low predicate be controlled? Based on the data presented so far, the *k* paradigm in a higher position seems to control it. However, I also want to

show that the *z* paradigm agreement can also control it as in (34). When the agreement on the low predicate is overtly realized though, the *k* paradigm person agreement markers spell it out. Namely, the type of the higher agreement which controls the lower agreement does not determine its phonological shape. The agreement on the low predicate structures is always realized as the *k* paradigm when it is overt.

(34) gel-se-k mi-:-miş-iz

come-cond-1pl QP-cop-past.evid-1pl

'Does this mean that we should have come?'

If the control of the agreement on the low predicate would only be possible by the *k* paradigm agreement on the high predicate, the structure in (34) would be ungrammatical. The reason why we see the *k* paradigm inside the predicate is that the nature of the *k* paradigm on the high predicate and the one on the low predicate is the same. Namely, both show the relation of the functional layer with the argument structure on the verbal predicates, and realized inside the whole predicate structure.

Finally, I claim that the affixal nature of the *k* paradigm comes from the fact that it is established inside the whole predicate structure, under PredP and is a part of the predicate. This relation between the agreement and the predicate is realized as affixhood nature of the *k* paradigm. Namely, I suggest that the affixes behave as they are an inseparable part of their hosts and this relation between the affixes and their hosts are similar to the relation between the verbal person agreement and the predicate that they are hosted in.

5.3.3.3.5 Interim Summary

In the section above, I claim that the verbal low predicates have person agreement on them, whose features are controlled by the higher agreement, either the *k* paradigm on the high predicate or the *z* paradigm in the C level. By control, I mean that the features of the lower person agreement should be the same as the features of the person agreement on the higher level. Namely, while the agreement on the high predicate has the second singular person features, the agreement on the low predicate cannot bear the features other than the second singular, so the agreement on the higher position shares its person and number features with the verbal agreement on the low predicate by controlling it.

The overt realization of the lower agreement is possible by an intervener (such as the question particle *mI*) between it and the copula.

In the next section, I will analyze the syntactic position of the *z* paradigm and its difference from the *k* paradigm person agreement.

5.3.3.4 The *z* Paradigm as a Functional Relation in the C Domain

The *z* paradigm in DD cannot occur on the low predicate in the affirmative forms similar to the *k* paradigm, as shown in (35), but unlike it, the *z* paradigm cannot be realized on the low predicate in the question forms and the coordination structures with suspended affixation either, as shown in (36) and (37) respectively.

(35) a. gel-iyo-0-muş-uz   (similar to the *k* paradigm)

     come-imperf.pres.indic-cop-past.evid-1pl

   'Apparently, we were coming.'

    b. *gel-iyo-z-0-muş-uz   (similar to the *k* paradigm)

     come-imperf.pres.indic-1pl-cop-past.evid-1pl

    Intended meaning: 'Apparently, we were coming.'

(36) a. gel-iyo mu-:-muş-uz   (similar to the *k* paradigm)

     come-imperf.pres.indic QP-cop-past.evid-1pl

    Intended meaning: 'Was it apparently the case that we were coming?'

    b. * gel-iyo-z mu-:-muş-uz   (unlike the *k* paradigm)

     come-imperf.pres.indic-1pl QP-cop-past.evid-1pl

     Intended meaning: 'Was it apparently the case that we were coming?'

(37) a. [gör-üyo da beğen-iyo]-:-du-k   (unlike the *k* paradigm)

     [see-imperf.pres.indic and like-imperf.pres.indic]-cop-past.indic-1pl

     Intended meaning: 'We were always in the case of seeing and liking her.'

    b. *[gör-üyo-z da beğen-iyo-z]-:-du-k   (similar to the *k* paradigm)

     [see-imperf.pres.indic-1pl and like-imperf.pres.indic-1pl]-cop-past.indic-

     1pl

     Intended meaning: 'We were always in the case of seeing and liking her.'

    c. *[gör-üyo-z da beğen-iyo]-:-du-k   (unlike the *k* paradigm)

     [see-imperf.pres.indic-1pl and like-imperf.pres.indic]-cop-past.indic- 1pl

     Intended meaning: 'We were always in the case of seeing and liking her.'

I observe that the *z* paradigm shows a different pattern compared to the *k* paradigm (not being realized on the low predicate) because when the non-verbal participle

forms are the low predicate, they cannot have agreement on them. The reason why the agreement similar to the *k* paradigm is not attested on the non-verbal low predicates is because the *z* paradigm agreement, in other words, nominal agreement, shows a functional relation between the argument structure and the whole predicate as opposed to the *k* paradigm which establishes a functional relation with the functional categories of a predicate (it may be defined as the relation between the argument structure and the TAM functional heads). With this claim, I imply that the *z* paradigm uses the whole predicate without looking at the inside of it when establishing its relation with the argument structure, and it is realized higher than the whole predicate, which I propose exists on the C level following Miyagawa (2010). The fact that the relation of the nominal agreement is realized above the whole predicate does not allow the addition of further higher predicates to the already existing one, hindering the formation of the complex predicate structures where more than one predicate is combined. However, the verbal agreement relation is established inside the predicate and it allows further additional functional layers.

The reason why a nominal low predicate does not have agreement on it can be accounted for by the claim that I make in Section 5.3.2.1, which is the following. The nominal agreement occurs above the whole predicate structure in the C domain, namely, above the PredP that I assume to exist above each predicate structure. The verbal agreement (*k* paradigm) occurs inside this PredP and that is why I claim that we can see the double agreement on the verbal predicates because it is still in the predicate level, thus allowing the merge of a high predicate. However, the nominal agreement occurs outside of the PredP, which hinders any realization of agreement on a nominal low predicate. If the nominal agreement relation holds, the further

predicate structures on the existing predicate cannot be merged because it occurs in the C level.

The *z* paradigm can be thought as a barrier which closes a predicate, not allowing it to be a low predicate in the combined predicate structures, while the *k* paradigm does not close the predicate allowing it to combine with a higher predicate structure.

In summary, the verbal agreement (the *k* paradigm) can occur on the low predicate of a combined predicate structure as well as on the high predicate, and it allows the addition of higher predicates, whereas the nominal agreement (the *z* paradigm) can only occur on a single nominal predicate or above a whole combined predicate structure, not on the low predicate, and it does not allow the merge of higher predicates. The former can be controlled by a higher person agreement which might be the *k* paradigm inside the whole predicate or the *z* paradigm outside the whole predicate on the C level.

As a final note, I argue that the nominal agreement paradigm (*z* paradigm) is realized as a clitic on predicates because it is realized outside the whole predicate structure. Its cliticization nature comes from the fact that it is not a direct part of the predicate structure but occurs as an external part of it as opposed to the verbal agreement paradigm (*k* paradigm) which is completely an internal part of the predicate structures and attaches to them as affixes. Because the clitics[69] have both a dependent and independent nature, differently from affixes, which cannot be separated from their hosts, it is similar to the relation of the nominal agreement with the PredP. Namely, it is not an internal part but an external, and at the same time, a

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[69] See Erdal (2000), Göksel and Kerslake (2005) for the nature of the clitics in Turkish.

necessary part of it. So being an affix or a clitic is related with the relation the person markers hold with respect to the predicate structures.

The syntactic positions of the *k* and *z* paradigms can be summarized and represented in (38).

(38) *the verbal low predicate+the verbal agreement:*

[[low pred (verbal)+Ø]$_{PredP}$ +cop+high pred (vebal)+*k* paradigm]$_{PredP}$

[[low pred (verbal)+Ø]$_{PredP}$ +cop+high pred (nom)]$_{PredP}$+*z* paradigm
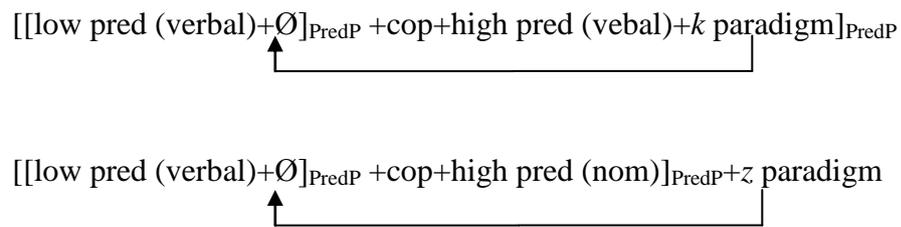
the nominal low predicate+no agreement:

[low pred (nom)+*no agreement*]$_{PredP}$ +cop+high pred (vebal)+*k*

paradigm]$_{PredP}$

[low pred (nom)+*no agreement*]$_{PredP}$ +cop+high pred (nom)]$_{PredP}$+*z*

paradigm
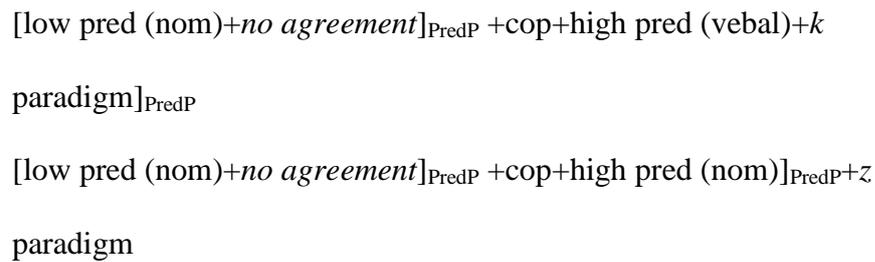
In the next section, I will present a Nano-syntactic analysis on the spell-out of the person agreement structures.

5.4 The Spell-out Mechanism of Person Agreement

In this section, I will present a Nano-syntactic analysis of the spell-out of person markers, having adopted this framework in the Chapter 4 and shown that it is superior to the Distributed Morphology framework in terms of the Turkish data

presented in this thesis. There is no previous Nano-syntactic analysis on the person agreement system to my knowledge in the literature.

I assume the existence of a feature hierarchy in person agreement in the syntactic structure, following Siewierska (2004). There is a person hierarchy in virtually all the languages and the distribution of number within person paradigms is seen to conform to this hierarchy shown in (39).

(39) 1>2>3

In Section 3.3 I claim that agreement values of the ϕ-probe are separate heads (c.f Fuss, 2004). The verbal agreement occurs above the highest functional head (TAM) and in the PredP which defines the whole predicate. Note that the verbal person agreement establishes a relation between argument structure and the functional categories inside the predicate. In this way, it does not occur outside the predicate and it is still a part of the whole predicate. On the other hand, nominal agreement occurs above the PredP in the C domain and establishes a relation with the argument structure and the whole predicate. Note that I do not assume the functional layers of person and number agreement as AgrP which is proposed by Chomsky (1993) because I propose that each person and number value has a phrasal projection and there is a hierarchical order among them as shown in (39). If AgrP was assumed, it would not be possible to show this hierarchy among the person and number values and the hierarchy of the person and number with respect to the functional TAM heads.

I adopt Agree operation of Chomsky (2001)[70] and for the nominal agreement, the proposal of Miyagawa (2010) that agreement occurs at C.

In line with the claims in the Nano-syntax model (i.e. Starke, 2001) and based on person hierarchy in (39), I propose the following structure for person agreement and features in the syntax, which is shown in (40).

However, note that the nature of hierarchical order of person features represented in (40) is not the same as the nature of the hierarchical order of functional TAM categories in the verbal domain. The latter represents the functional sequence of the different categories which are Asp, T and M, whereas the former represents the relation among the features of the same set. For example, the sequence of TAM categories implies that for the aspectual interpretation there must be an event and the tense interpretation of an event requires the aspectual interpretation. Indicative or evidential specification requires tense interpretation. Namely, the hierarchical relation of TAM represents the functional sequence of the categories which form different sets.

The hierarchical relation of person features which are [speaker], [participant] and [person (default)] show the relation of the features which belong to the same set of person category. The feature [speaker] is the highest among them because it is also a participant and person. If it is not merged, the feature [participant] is interpreted as the participant who is not the speaker, so the addressee. In the case where neither the node with [speaker] feature nor the one with [participant] feature is merged the person is specified by default as a non-participant element which is the third person.

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[70]Although I adopt the Agree operation, unlike Chomsky I argue that the agreement occurs on the separate person and number nodes, not on the TAM markers.

(40) a. *verbal agreement*

```
                                    PredP
                                   /    \
                                 plP    Pred
                                /   \
                              sgP    pl
                             /   \
                      Sp(eaker)P   sg
                      /        \
            Par(ticipant)P   Sp(eaker)
            /          \
      Per(son)P⁷¹    Par(ticipant)
       /     \
      MP    Per(son)
      /\
     ···
```

b. *nominal agreement*

```
                              plP
                             /   \
                           sgP    pl
                          /   \
                        SpP    sg
                       /   \
                    ParP    Sp
                   /    \
                PerP    Par
               /    \
           PredP    Per
           /   \
          MP   Pred
          /\
         ···
```
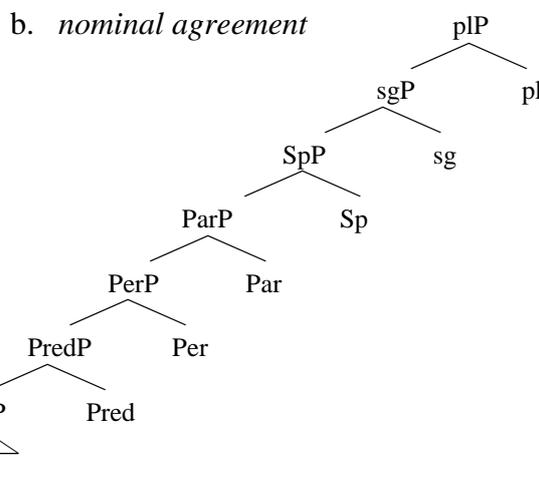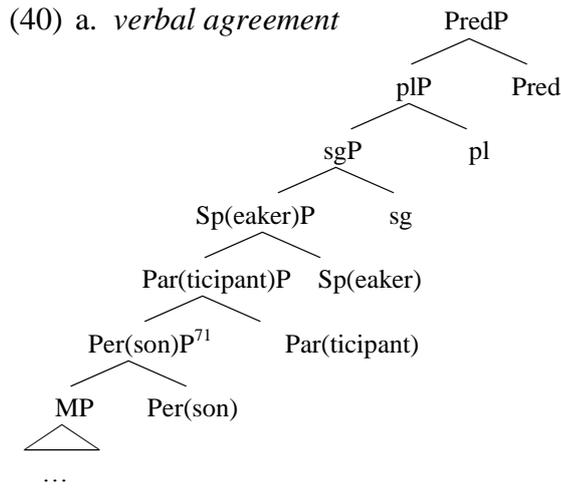
Why do we have the number nodes above the person nodes and why do we have a

singular node besides a plural node? We have the number nodes hierarchically above

the person nodes because the number specification is computed on the person

specification. Siewierska (2004) observes that the distribution of number within

person paradigms is seen to conform to the person hierarchy throughout the

languages. However, the other way around is not observed, where the distribution of

person is seen to be dependent on the number agreement. Ritter and Harley (2002)

also observe that there are some languages such as Wakashan, a language in British

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[71] The structure including the PerP, ParP and SpP all denote person category. The reason why I show
the default agreement as PerP is not that only third person is a person category, but it is the person
which is not a speaker and a participant.

Columbia, where number specification is not marked although there is person marking. So, the absence of the number despite the existence of the person agreement supports the suggestion that number is hierarchically higher than the person. If it were the opposite, we would expect the specification of number even in the absence of person agreement. In the Nano-syntactic framework, this is possible if the number relation is formed above the person agreement and the structure of number includes the structure of person agreement (see also Arslan Kechriotis, 2006 for the number relation in DPs in Turkish).

Why do we have a separate singular node although it is possible to claim that singularity is the absence of the plural node without any need for the assumption of its existence? The reason for why I assume the existence of a separate singular node is the following. Singular is the default form of the number marking and the most unmarked of all (Haspelmath and Sims, 2010), when we consider the languages which also mark the dual, trial (three) and paucal (a few) numbers. The default forms and features are assumed to project their phrases in this thesis and this is also the case for the third person agreement which is assumed to be the default agreement form. For this reason, I also assume that the default number agreement has also a separate node in the syntax. However, it is hierarchically lower than the plural node.

Note that in Nano-syntax, the lexical items are inserted into the syntactic structure if their structures, stored in the lexicon, match their structure in syntax. In this section, I will present a proposal on how the markers of the *k* and *z* paradigms are inserted into the structure assumed above in (40).

As stated in the Section 5.2, there are two main person agreement paradigms in DD which are the *k* and *z* paradigms and those paradigms each have two sub-paradigms. They are shown in Table 9.

Table 9 The *k* and *z* Paradigms

| | k paradigm | | z paradigm | |
	Paradigm 1 (-DI, -sA, (I)sA)	Paradigm 2 (-(I)DI)	Paradigm 3 (-(A)cA(K), -(I)yo (-mIş, -Ir, -(I)mIş)	Paradigm 4 nominals
1sg	-m	-m	-(I)n	-(y)In
2sg	-n	-n	-(sI)n	-sIn
3sg	0	0/-n	0	0
1pl	-k	-k	-(I)z	-yIz
2pl	-nIz	-nIz	-(s)InIz	-sInIz
3pl	-(lAr)	-(lAr)	-(lAr)	-(lAr)

From now on I will call Paradigm 3 *z* paradigm 1 and Paradigm 4 *z* paradigm 2. I will take the *k* paradigm as a whole, not treating it as having two different sub-paradigms.[72]

5.4.1 The Similarities between the Verbal and the Nominal Paradigms

In this section I make the following proposals with respect to the similarity and syncretism between the lexical items of the verbal and nominal person agreement paradigms.

(i) The lexical items realized as the *k* paradigm are *-m* (first singular), *-n* (second singular), *-k* (first plural), and *-(I)z* (the plural marker specific to non third persons). Those lexical items in the *k* paradigm, except *-k* and *-m*, seem to be showing similarity compared to the ones in the *z* paradigm 1, which are *-(s)In*

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[72] The difference between the two sub-paradigms of the *k* paradigm is on the realization of the third person singular form. In Paradigm 1 it is null while in Paradigm 2 it may be realized overtly as *-n*. I suggest that the *-n* form is not a separate lexical item but a part of the lexical item *-(:)dIn* which spells-out a structure including copula+past+indicative+Person nodes. I will explain why I suggest so in Section 5.4.2.

(the second singular form) (although they seem to be different in shape, they are assumed to be the same lexical item) and *-(I)z* (the plural). The first singular form is *-(I)n* and the first plural form is *-(I)z* in the *z* paradigm 1, though. The lexical items *-(y)In* (first singular), *-sIn* (second singular) and *-(y)Iz* (the plural) of the *z* paradigm 2 do not show similarity and syncretism with the lexical items in the other paradigms. Although they have common parts with *z* paradigm 1 lexical items in terms of shape, they are not the same lexical items.

Let me start with the first person markers which are *-m* in the *k* paradigm, *-(I)n* in the *z* paradigm 1, and *-(y)In* in the *z* paradigm 2. The *-(y)I* part of the first person agreement marker of the *z* paradigm 2 cannot be the result of phonological processes, because of the following contrast shown in (41).

(41) a. gel-iyo-n   *z paradigm 1*

        come-imperf.pres.indic-1sg

       'I am coming.'

    b. *gel-iyo-yun

         come-imperf.pres.indic-1sg

         Intended meaning:'I am coming.'

    c. iyi-yin   *z paradigm 2*

        good-1sg

       'I am good.'

d. *iyi-n

good-1sg

Intended meaning: 'I am good.'

When looked at the examples from both the *z* paradigm 1 and 2 we see that although the suffixes that the person markers attach to are forms that end with a vowel, (41a) gets *-n*, which is the expression of *-(I)n* but (41c) gets *-yIn*, which is the expression of *-(y)In*. This suggests that the first person singular form in the two *z* paradigms is not identical, and they belong to different paradigms.

Note that one might claim *-y* inside the marker *-(y)In* to be the cliticized form of the copula *i-*. However, this cannot be the case because it is only seen in the first person forms. If it were the copula, we would expect the following forms for the second person singular and plural.[73]

(42) a.*hasta-y-sın

sick-cop-2sg

Intended meaning: 'You are sick.'

b. hasta-sın

sick-2sg

'You are sick.'

c. *hasta-y-sınız

sick-cop-2pl

Intended meaning: 'You are sick.'

---

[73] See also Kornfilt (1996) who claims that the palatal glide *-y* in the first person forms is inserted to break up the vowel cluster, so it is not the clitic form of the copula *i-*.

d. hasta-sınız

   sick-2pl

   'You are sick.'

There is another reason why *-y* cannot be the cliticized form of the copula *i-*. Remember that the cliticized form of *i-* is realized as the lengthening of the preceding vowel in DD and if it were so, we would expect the lengthening of the preceding vowel on 'hasta' instead of the insertion of *-y* there. (43a) is ungrammatical, but (43b) is grammatical.

(43) a. *hasta-:-ın

        sick-cop-1sg

        Intended meaning: 'I am sick.'

     b. hasta-yın

        sick-1sg

      'I am sick.'

In conclusion, the first person marker *-(I)n* of the *z* paradigm 1 and the marker *-(y)In* of the *z* paradigm 2 are different markers. They are paradigm specific and not available to the other paradigm. The plural forms of them which are *-(y)Iz* in the *z* paradigm 2 and *-(I)z* in the *z* paradigm 1 are also different person agreement markers for the same reason discussed above for their singular counterparts.

When it comes to the second person markers of the *k* paradigm and the two *z* paradigms, there is near identity between the *k* paradigm and the *z* paradigm 1, while the second person marker in the *z* paradigm 2 is a different lexical item. Let me

first compare the second person markers of the *z* paradigm 1 and the *z* paradigm 2.

The former is *-(sI)n* and the latter is *-sIn*. For the former, the full usage of *-sIn* is not

preferred and used, but not ungrammatical.[74] So the most common used form is *-(I)n*.

The *z* paradigm 1 TAM markers which end with a vowel (*-(I)yo* and *-(A)cA(K)*)[75] get

the *-n* marker for the second person singular form. The *z* paradigm 1 TAM markers

-mIş and *-Ir*, which end with a consonant, get the marker *-In*. So, the occurrence of *-I*

is phonological which is inserted to break the consonant clusters. However, *-n* is

impossible with the *z* paradigm 2 even when the nominal element it attaches to ends

with a vowel as shown in (44). This again suggests that they are two different lexical

items.

(44) a. gel-ce-n   *z* paradigm 1

    come-fut-2sg

   'You will come.'

  b. hasta-*(sı)n   *z* paradigm 2

    sick-2sg

   'You are sick.'

However, again we see that there is identity between the second person markers of

the *k* paradigm and the *z* paradigm 1, namely both are realized as *-(I)n* (*-I* is inserted

for phonological reason to break the consonant clusters and its insertion is only

possible in the *z* paradigm 1, not in the *k* paradigm because the TAM markers in the *k*

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[74] The full form *-sIn* in the *z* paradigm 1 might not even be used at all except the very formal
environments, which I still doubt. The informants accept it as grammatical although they do not use
this form, which is probably due to the effects of ST on DD. For that reason, I consider the second
singular marker of the *z* paradigm 1 as *-(I)n* and accept it as to be the same as the second singular
marker of the *k* paradigm which is *-n*.

[75] The consonant *-K* at the end of the lexical item *-(A)cA(K)* occurs only in the third person forms, but
not used in the other person forms and dropped when it is followed by the person agreement markers.

paradigm all end with a vowel.). Although the second person in the *z* paradigm 1

involves an optional *-(s)* in it, this is not preferred but not rejected as ungrammatical.

So, the optional *-(s)* part of the second person marker in the *z* paradigm 1 does not

make it a different marker from the one in the *k* paradigm.

As for the plural forms of the first and second markers in the *k* paradigm and

the two *z* paradigms, the same case exists for the second person plural markers.

There is an identity between the second plural markers of the *k* paradigm and the *z*

paradigm 1 which is realized as *-(I)z* added to the singular markers, but the second

plural person marker *-(y)Iz* is again a different lexical item available only to the *z*

paradigm 2 for the same reasons discussed for the singular forms of them above.

However, the first plural form of the *k* paradigm is *-k* and that is how this paradigm

has its name in the literature. The first plural form of the *z* paradigm 1 is *-(I)z,*

differing from the verbal paradigm.

Although the lexical item *-(I)z* is available to the *k* paradigm realized on the

second person plural form (but not realized as the first person plural form),[76] the

lexical item *-k* is not available to the *z* paradigm 1. In the Nano-syntactic framework,

there is no explicit reason for why a lexical item cannot be available to other

paradigms, although it may be of the same nature with the ones in the other

paradigms. I believe that this does not pose a problem on the framework and it might

be due to the historical reasons that one paradigm has an x lexical item and the other

has the y lexical item for the same structure.

So, the next question would be why there are different lexical items

available to the two nominal paradigms, the *z* paradigm 1 and 2 although they are of

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[76] The lexical item *-(I)z* does not spell-out the first plural form in verbal agreement because a fully specified and matching lexical item *-k* is available in the paradigm wining the competition between the two by the Elsewhere Principle (i.e. Starke, 2001). So, *-(I)z* can only spell-out the plural node in the second person structure of the *k* paradigm. See Section 5.4.4 for the details.

the same nature both realized at the end of the nominal elements. I suggest as an answer to that there is a historical process where the words change into clitics and the clitics change into affixes following Kabak (2007). So, I speculate that the *z* paradigm 1 might have gone through such a process where the pronominal subjects have changed into clitics[77] and now they are in the process of changing into affixes and somehow get separated from the fully clitic forms, the *z* paradigm 2. The reason why the *z* paradigm 1 shows partial identity with the *k* paradigm although it does not show it with *z* paradigm 2 might be the result of this process. This paradigm tends to go towards a change into the affixed person agreement paradigm which is the *k* paradigm. Of course, these speculations need to be subject to a diachronic analysis which is out of the scope of this thesis and I leave this issue for further research.

Having decided that the *z* paradigm 1 and the *k* paradigm have some identical lexical items, first I will present the spell-out of the third person agreement and then the spell-out of the nominal person agreement with the *z* paradigm and finally the spell-out of the verbal person agreement with the *k* paradigm.

5.4.2 The Spell-out of the Third Person[78]

I suggest that the third person is different from the first and second persons, and it is realized as the default person agreement partially following Kayne (2000)[79]. I

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[77] See Section 5.3.3.2.

[78] The third person plural form *-lAr* will not be accepted as belonging to any person paradigms although it is shown in all the Tables representing the person paradigms. The reason for this is that it does not behave the same way as the *k* and *z* paradigm markers and it is a plural form which is also seen on the nouns. I think that *-lAr* has a different property than the person markers but the reason why we see it as plural marker for the third person may be due to the default nature of the third person. It might be a number marker which is independent from the person features. I leave this issue for further research.

propose that the default agreement is spelled-out by the TAM functional lexical items. Namely, when the lexical item such as *-DI* is inserted in the functional nodes in a predicate it also lexicalizes the default agreement. In (45), I show how a single verbal predicate is spelled-out with the third person agreement.

(45) a. gel-di

    come-perf.past.indic.3sg

    'He/She/It came.'

b.
```
              PerP⁸⁰
             /      \
           MP        Per
          /    \
        TP      M[indic]
       /    \
     AspP    T[past]
    /    \
  VP      Asp[perf]
```

c. *-DI*⁸¹
```
              Per
             /   \
           M       Per
          /  \
        T      M[indic]
       /  \
     Asp    T[past]
    /  \
         Asp [perf]
```
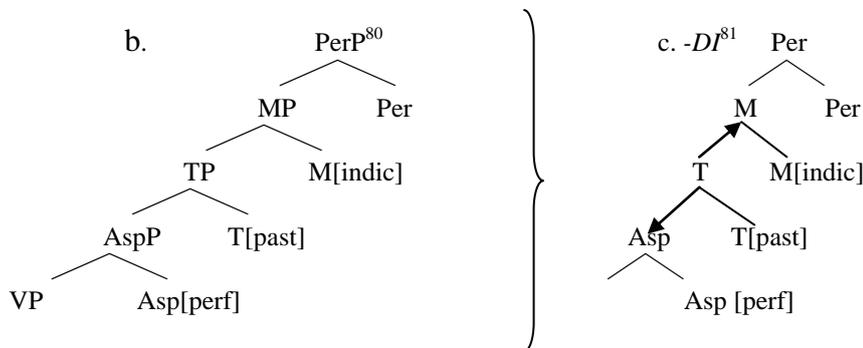
However, the spell-out of the third person agreement in the nominal predicates is different from the one in the verbal predicates in terms of its place in the structure of the lexical item (the former is also spelled-out by the TAM lexical items). As shown in Section 5.4, the nominal predicates are suggested to have a PredP projection above them and person agreement occurs outside this PredP (See Section 5.3 for the discussion). The default person agreement, the third person (PerP) is merged above

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[79] Kayne (2000) argues that the third person carries a [-person] feature but in this thesis it is suggested that it carries a [person] feature, but following Kayne it is argued to be the default person. The third person is interpreted when the features [participant] and [speaker] are not merged in the structure.

[80] Remember that for the purposes of differentiating the syntactic structures from the lexical structures, I show the latter eliminating phrase levels, showing only the heads. However, note that this does not mean that the tree in the lexicon is different from the one in syntax. The tree structure in (45b) represents the syntactic structure, while the one in (45c) represents the structure of the lexical item *-DI* stored in the lexicon.

[81] Remember that the lexical item *-DI* has both a lex-lex and a feature-feature pointer. See Section 4.1.1.1.2 for the discussion. The relevant point here is that the lexical item has also the Per node in it.

the PredP and I propose that the nominal lexical items have a Pred head and the Per nodes in their internal structures, so they can spell-out the third person agreement by default. For example, the spell-out of a nominal predicate with the default third person agreement on it is shown in (46).

(46) a. gel-miş

   come-perf.past.evid.3sg

   'Apparently, he/she/it came.'

b.
```
                    PerP
                   /    \
               PredP     Per
              /    \
            MP      Pred
           /  \
         TP    M[evid]
        /  \
     AspP   T[past]
    /   \
  VP     Asp[perf]
```

c. *-mIş*
```
                    Per
                   /   \
               Pred     Per
              /    \
            M       Pred
           / \
          T   M[indic]
         /↙\
      Asp   T[past]
     /   \
         Asp[perf]
```
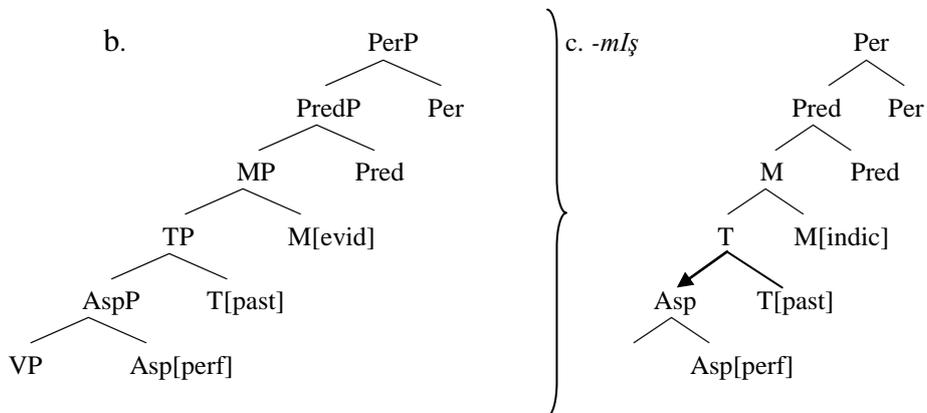
In that way, the third person agreement is always realized covertly; namely, there is no overt lexical item to spell-out only Per node.

However, in DD there seems to be a counter-example to this claim. When the lexical item *-DI* spells-out a high predicate which follows the copula *i-*, the third person form is optionally but most preferably spelled-out as *-n* as shown in (47).

(47)   oku-du-:-du-n/0

   read-perf.past.indic-cop-past.indic-3sg

   'It was the case that he/she/it read (it).'

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However, the overt realization of the third person is only available after the lexical item *-DI* if it follows the copula *i-*. Otherwise, it refers to the second person singular as shown in (48), where *-DI* does not follow the copula *i-*.

(48) oku-du-(*n)/0

read-perf.past.indic-3sg

'You read (it).'

It seems that the overt realization of the third person occurs if the person agreement is realized on the high verbal predicate of a combined predicate structure, not on a single predicate. However, if this were the case we would expect *-n* to spell-out the third person when the verbal high predicate is spelled-out by another verbal lexical item which is *-sA*. This is not the case and the third person is not overtly pronounced with the lexical item *-n* as shown in (49).

(49) oku-yo-:-sa-(*n)/0

read-imperf.pres.indic-cop-cond-3sg

'If he/she is reading (it).'

As a final note, the overt realization of the third person agreement is impossible on the nominal high predicates and one example is shown in (50).

(50) oku-yo-:-muş-(*un)/0

read-imperf.pres.indic-cop-pres.evid-3sg

'Apparently, he/she is reading (it).'

Because the realization of the third person by *-n* is only possible with the lexical item *-DI* if it follows the copula *i-*, I suggest that there is a lexical item *-(:)dIn* and it lexicalizes the cop+high predicate and the third person nodes as a chunk. It might seem to be trivial to suggest that *-n* is the part of the *-(:)dIn*, not a separate lexical item at first. However, note that the overt realization of the third person does not show a regular behavior, for example it would be realized on the both verbal high predicates or all the high predicates. So, at this point where it does not show a regular behavior but it is only realized on the lexical item *-DI* after the copula *i-* makes me think that it is idiosyncratic.

In summary, I suggest that the third person agreement is a default agreement and spelled-out by the TAM lexical items, not with a null lexical item or any other one. In the next section, I will mention how the nominal agreement is spelled-out. In the following sections while explaining the spell-out of nominal and verbal paradigms I will not mention the third person agreement again. The spell-out of the first and second persons occur above the structure which includes the predicate+PerP and is already spelled-out by the TAM lexical items by the cyclic spell-out.

<u>5.4.3 The Spell-out of the Nominal Agreement</u>

In this section, I will present how the person agreement in the *z* paradigm occurs. I claim that there is no identity between the person markers of the *z* paradigm 1 and 2 as shown in the previous section. I will first show the spell-out of the *z* paradigm 2 because it is an easier case showing no similarity with the other paradigms. Then, I will show the spell-out of the *z* paradigm 1.

I propose the following internal structures of the lexical items in the *z* paradigm 2.

(51)   a. *-(y)In*   sg   b. *-sIn*   sg   c. *-(y)Iz*   pl
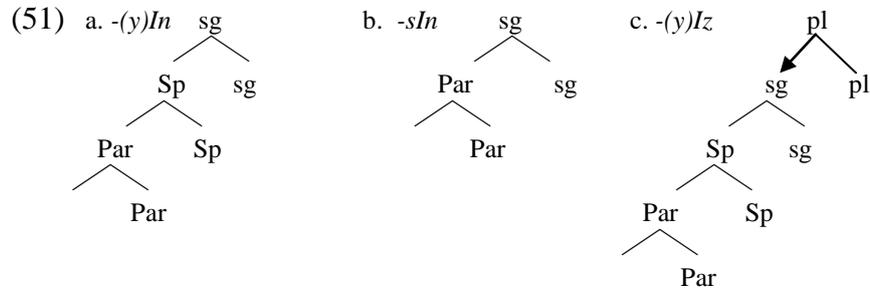
5.4.3.1.1 The Spell-out of the First Person

When the φ-probe includes a structure where there are PerP (default and spelled-out by the TAM lexical item), ParP and SpP in a hierarchical relation respectively and the sgP above the persons hierarchy, the available competing lexical items are *-(y)In* and *-(y)Iz*. However, the former wins the competition. While *-(y)In* fully matches the structure in the syntax, the other one loses the competition by the Elsewhere Principle repeated in (52) because it leaves its plural feature unused. So, *-(y)In* wins.

(52)   At each cycle, if several lexical items match the root node, the candidate with least unused nodes wins.

When the φ-probe includes a structure where there are PerP (default), ParP and SpP in a hierarchical relation respectively and the sgP and plP, which are also in a hierarchical relation, above the persons hierarchy, the only available lexical item for the spell-out is *-(y)Iz*, which has lex-lex pointer from the plural node to the lexical

item (-*(y)In*) that has the first person singular structure. Note that with the lex-lex pointer the lexical item -*(y)Iz* is syncretic with the plural and the first person plural forms[82] (It can spell-out both plural and the first person plural nodes in the structure.)

5.4.3.1.2 The Spell-out of the Second Person

When the ϕ-probe includes a structure where there are PerP (default and spelled-out by the TAM lexical item), ParP in a hierarchical relation respectively and the sgP above the persons hierarchy, the only available lexical item is -*sIn*, which fully matches the syntactic structure. Note that -*(y)Iz* can be seen as a competing lexical item because it also includes the Par node in it. However, its spell-out is impossible by the cyclic merge. It cannot leave its Sp node unused and spell-out a structure with Par and sg nodes.[83]

The second person plural form has a ϕ-probe which includes the PerP (default), ParP, sgP, and plP hierarchically. There is no single lexical item to spell-out this position, so the lexical items -*sIn* and -*(y)Iz* spell it out together. The Par and the sg nodes are spelled-out by -*sIn* and the pl node is spelled-out by -*(y)Iz*. Note that the spell-out of the pl node by -*(y)Iz* is possible because it has a lex-lex pointer to the lexical item -*(y)In*. The lex-lex pointer also means that the node(s) above the pointer is independent of the nodes that it points to. So, the pl node in the syntax can be spelled-out by -*(y)Iz*.

So, the question is why -*(y)Iz* has a lex-lex pointer to the lexical item -*(y)In*. I assume the existence of the lex-lex pointer on the lexical item -*(y)I*z because it is

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[82] See Chapter 4 for the pointers.

[83] Note that it could leave its pl node unused because a lex-lex pointer shows independency relation between the two lexical items above and below the lex-lex pointer.

syncretic with plural and the first person plural forms. In order for it to spell-out a structure with both the plP only and pl and the first person structure (ParP and SpP) together, it needs to have lex-lex pointer to the first person structure. In that way, we do not see two different morphemes as *-(y)In* and *-(y)Iz* to spell out the first person plural structure, whose first person part would be spelled-out by the former and plural part would be spelled-out by the latter. Instead, there is just one lexical item to spell-out this structure and it is *-(y)Iz* and it can do it due to its lex-lex pointer.

In summary, the lexical items in the *z* paradigm 2 are *-(y)In* with the structure [sg[Sp[Par]]], *-sIn* with the structure [sg[Par]], and *-(y)Iz* with the structure [pl⟼[sg[Sp[Par]]]]. Those lexical items are not syncretic or do not show any similarity with the lexical items of the other paradigms.

In the next section, I will present how the spell-out occurs in the *z* paradigm 1.

5.4.3.2 The Spell-out of the *z* Paradigm 1

I propose the following internal structures for the lexical items in the *z* paradigm 1.

(53) a. *-(I)n* sg   b. *-(I)z* pl

                Sp   sg   sg   pl

            Par   Sp   Sp   sg

                Par   Par   Sp

                                        Par
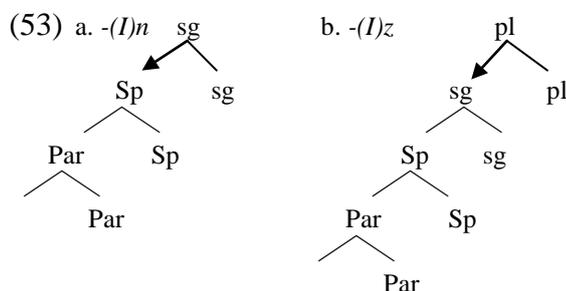
5.4.3.2.1 The Spell-out of the First Person

When the ɸ-probe includes a structure where there are the PerP (default and spelled-out by the TAM lexical item), ParP and SpP in a hierarchical relation respectively and the sgP above the persons hierarchy, the available competing lexical items are *-(I)n* and *-(I)z*. However, the former wins the competition by the Elsewhere Principle because the latter leaves its pl feature unused.

When the structure is the first person plural whose ɸ-probe includes PerP, ParP, SpP, sgP, and plP in a hierarchical order respectively, only *-(I)z* can lexicalize this structure because it has a lex-lex pointer to a lexical item which includes the structure of the first person singular form, which is [sgP[SpP[ParP]]]. This lexical item that *-(I)z* has a lex-lex pointer to might be both *-(y)In* of the *z* paradigm 1, whose structure is shown in (51a) or another lexical item *-m* which has the same structure as *-(y)In* but belongs to the *k* paradigm. Note that it does not point to *-(I)n* because *-(I)n* has also a lex-lex pointer in it the reason of which I will mention in the following section, so it is a different structure than the one *-(I)z* points to.

The answer to the question why *-(I)z* has a lex-lex pointer to the first person singular structure is the same as the answer to the question raised in the previous section. The answer is that it is syncretic between plural and the first person plural forms. It can only spell-out a structure with both the pl node only and pl and the first person structure, if it has lex-lex pointer to the first person structure. In that way, we do not see two different morphemes as *-(I)n* and *-(I)z* to spell out the structure of the first person plural form, whose ParP and SpP part would be spelled-out by the former and plural part would be spelled-out by the latter. Instead, there is just one lexical

item to spell-out this structure and it is *-(I)z* and it can do it by the lex-lex pointer it

has towards the first person singular structure.[84]

5.4.3.2.2 The Spell-out of the Second Person

The second person singular form has a structure with the PerP, ParP and sgP in a

hierarchical order respectively. The spell-out of this structure is only possible with

the lexical item *-(I)n*, which is syncretic with the first person singular form. I suggest

that this syncretism can be accounted for if we assume that the lexical item *-(I)n* has

a lex-lex pointer to a lexical item which includes the structure with ParP and SpP as

shown in (41a) and repeated here as (54).

(54) *-(I)n* sg

        Sp   sg

   Par Sp → a lexical item x (never overtly realized by the Override

                             Effect)

      Par
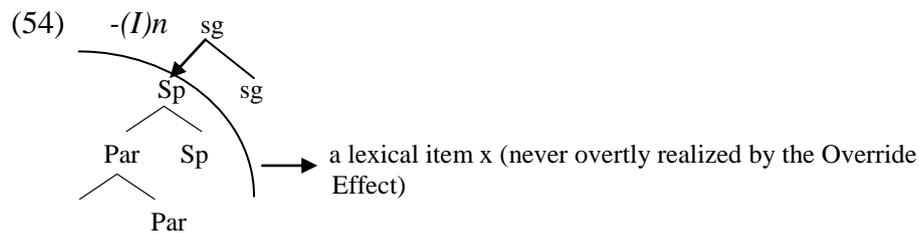
This lexical item which includes Par and Sp nodes is never overtly realized because

the other lexical items which would spell-out the syntactic structure with Par and Sp

person nodes always win by the Override Effect. Spell-out is taken to be cyclic, with

a spell-out attempt after each merge, and each successful spell-out overrides the

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[84] In Paradigm 7, the possessive paradigm, the first person plural form is *-(I)mIz* where we see the combination of the first person singular marker *-(I)m* and the lexical item *-(I)z* which spells-out the plural node. This seems to be contrary to the situation mentioned here. Namely, the lexical item *-(I)z* cannot spell-out the first person plural structure unlike in the *z* paradigm 1. The spell-out of this structure by *-(I)z* in the *z* paradigm 1 is possible by the lex-lex pointer it has to the structure of the first person singular structure. So, why it does not spell-out the same structure in the possessive forms remains as a problem. Because the possessive paradigm is not inside the scope of this thesis I leave this issue for further research. The structure of the person agreement in the possessive forms might be different from the person agreement of the verbal and nominal predicative agreement.

previous successful spell-outs. The merger is assumed to be bottom-up, the biggest match will always override the smaller matches, which leads to the Override Effect (Starke, 2009).

(55) Theorem: the biggest wins.

Every lexical item in the person paradigms can override this lexical item x which has Par and Sp nodes because the singular node is also assumed to exist above the person nodes. Each person agreement has either singular node above them for their singular forms, or singular and plural nodes above them for their plural forms. In order for the lexical item x to spell-out Par and Sp nodes, we would need a lexical item for the spell-out of the sg node in the singular forms, or the sg and the pl nodes in the plural forms. There is no such lexical item (or items) which can spell-out only a sg node (specified for the singularity of each person) although there is the lexical item which can spell-out only the pl node which is *-(I)z*. So, if we do not have a lexical item which would spell-out the sg node only, we need to have lexical items which spell-out the person nodes and the sg node together. In fact, this is the case (e.g. *-(y)In*, *-(I)n*). Those lexical items always override the spell-outs of the lexical item x because the former are bigger.

When the ϕ-probe in the syntactic structure includes the plural form of the second person, which includes PerP (default), ParP, sgP and plP in a hierarchical order respectively, there is more than one lexical item to spell-out this structure. First, *-(I)n* spells-out the structure with the ParP and the sgP node. The pl node above it is spelled-out by the lexical item *-(I)z*. Although *-(I)z* includes the same structure as the one in the syntax, it can also spell-out the pl node (thanks to its lex-lex pointer

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between its pl node and the rest of its structure it can spell-out the pl node). The possible structures that the lexical item *-(I)z* can spell-out are the following. Remember that with a lex-lex pointer the lexical item has a much wider range of application. The lexical item *-(I)z* is shown in (56) and possible 4 (there are more possibilities) syntactic structures it can spell-out are shown in (57).

(56) *-(I)z*

```
                pl
              ↙   ╲
           sg      pl
          ╱  ╲
        Sp    sg
       ╱  ╲
     Par   Sp
    ╱  ╲
  Par
```

(57) a.
```
        plP
       ╱   ╲
     sgP    pl
    ╱   ╲
  SpP    sg
 ╱   ╲
ParP   Sp
╱  ╲
Par
```
b.
```
        plP
       ╱   ╲
     SpP    pl
    ╱   ╲
  ParP    Sp
 ╱   ╲
Par
```
c.
```
     plP
    ╱   ╲
  ParP   pl
 ╱   ╲
Par
```
d.
```
        sgP
       ╱   ╲
     SpP    sg
    ╱   ╲
  ParP    Sp
 ╱   ╲
Par
```

e *
```
        plP
       ╱   ╲
     sgP    pl
    ╱   ╲
  ParP    sg
 ╱   ╲
Par
```
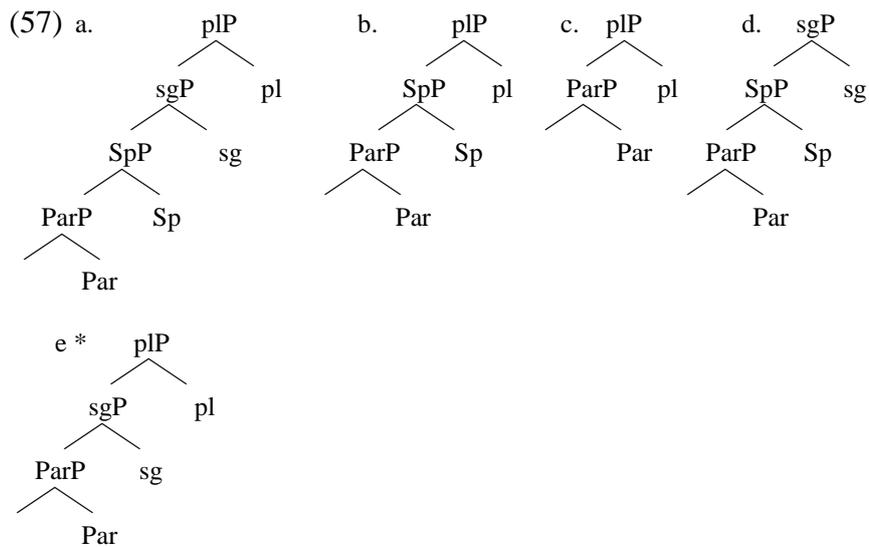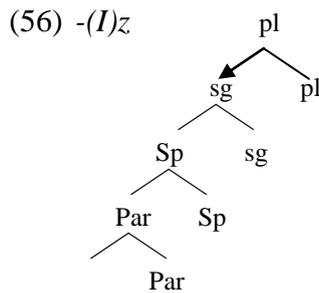
The spell-out of (57e) by *-(I)z* is impossible because it cannot skip its Sp node. The impossibility of the structure in (57e), which is the second person plural form, to be spelled-out by *-(I)z* results in two different lexical item insertion into the second person plural structure. *-(I)n* is inserted into the structures with the Par and the sg nodes, while the pl node which is on the highest position of all is spelled-out by *-(I)z*.

Note that *-(I)z* can lexicalize the pl node because a lex-lex pointer shows that there is

an independent relation between a node and the nodes above and under itself.

In summary, the lexical items in the *z* paradigm 1 are *-(I)n* with the

structure [sg→[Sp[Par]]] and *-(I)z* with the structure [pl→ [sg[Sp[Par]]]]. The first

person singular and the second person singular structures are spelled-out by the

lexical item *-(I)n* (which is possible by the lex-lex pointer), so there is syncretism

between them. The first person plural form is spelled-out by the lexical item *-(I)z* and

the second person plural form is spelled-out by the two lexical items *-(I)n* and *-(I)z.*

In Section 5.4.2 it is stated that there is syncretism between the second

person singular form of the *k* paradigm and the first person singular form of the z

paradigm 1 and the former is also identical to the second person singular form of the

z paradigm 1, which implies that the first and the second singular forms of the *z*

paradigm 1 are syncretic. There is also identity between the second person plural

forms of the two paradigms although the first person plural form is spelled-out by a

different morpheme in the *k* paradigm. In the next section, I will present how the

spell-out of the verbal agreement occurs and show the account for the cases

mentioned above.

5.4.4 The Spell-out of the Verbal Agreement

I propose the internal structures for the lexical items which are in the *k* paradigm as

in the following: The lexical items *-(I)n* and *-(I)z* have already been discussed in the

previous section because they are available to *z* paradigm 1 and they are also shown

here because they are also available to the *k* paradigm.[85]

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[85] I suggest that all the person agreement lexical items include a Pred node in the highest position. If
they lexicalize the person agreement structure above a verbal predicate they also lexicalize the PredP

(58) a. *-m* sg   b. *-(I)n* sg   c. *-k* pl   d. *-(I)z*[86] pl[87]

```
(58) a. -m      sg          b. -(I)n      sg          c. -k      pl          d. -(I)z      pl
          Sp   sg                 Sp   sg                 sg   pl                 sg   pl
       Par   Sp                Par   Sp              Sp   sg                Sp   sg
           Par                     Par            Par   Sp              Par   Sp
                                                      Par                   Par
```
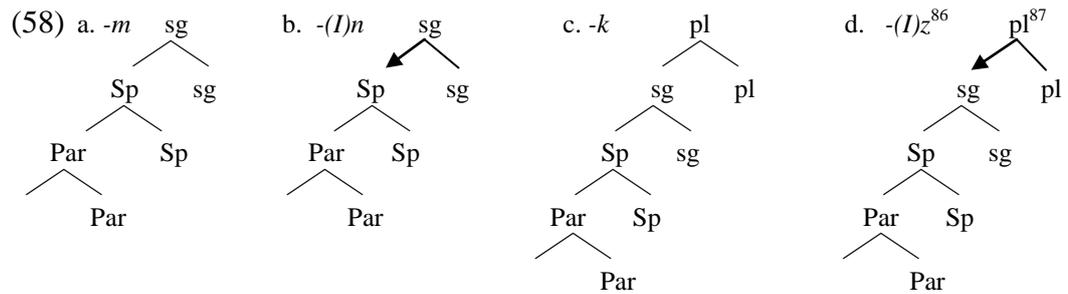
5.4.4.1 The Spell-out of the First Person

When the φ-probe includes a structure where there are PerP (default and spelled-out by the TAM lexical item), ParP and SpP in a hierarchical relation respectively and the sgP above the persons hierarchy, the available competing lexical items are *-m*, *-k*, *-n* and *-(I)z*. However, *-m* wins the competition. While *-m* fully matches the structure in the syntax, the other lexical items lose the competition by the Elsewhere Principle, so *-m* wins (the other lexical items do not match the structure fully).

The lexical item *-k* leaves its plural feature unused, and the lexical item *-(I)n* contains a lex-lex pointer and for that reason they lose the competition. Remember that if a lexical item contains a pointer it means that it has much wider range of application than the one without a pointer. Therefore, when the two lexical items, the one with a lex-lex pointer and the corresponding one without a pointer are competing

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above it. However, if they lexicalize the person agreement on the nominal predicates they do not lexicalize the PredP because remember that person agreement occurs above the PredP, which is lexicalized by the TAM markers. This is possible by the Superset Principle: the lexical items can either fully match the syntactic structure or be the superset of it in order to lexicalize it. However, note that I will not show the Pred nodes of the person agreements in their structural representations.

[86] *-I* is inserted when there is a phonological need for it to break the consonant clusters. In the verbal agreement *-(In)* and *-(Iz)* are always realized as *-n* and *-z* respectively because the verbal functional lexical items *-DI* and *-sA* end with a vowel. However, I still show the *-(I)* part of them in order to emphasize that they are the same lexical items as in the ones of the *z* paradigm 1.

[87] Remember that *-(I)z* is also available to the *k* paradigm besides the *z* paradigm 1 but does not spell-out the first plural form in the verbal agreement structure because of the availability of the fully specified lexical item *-k* for this position. *-(I)z* only spells-out the plural node in the verbal agreement thanks to its lex-lex pointer (see the previous section for the details.)

for the same slot, the latter will win the competition by the Elsewhere Principle.[88] Although *-(I)z* is also available for the competition, it loses as a result of the Elsewhere Principle because it leaves its pl node unused.

When the ɸ-probe includes a structure where there is PerP (default), ParP and SpP in a hierarchical relation respectively and the sgP and plP, which are also in a hierarchical relation, above the persons hierarchy, the available competing lexical items are *-(I)z* and *-k*. However, *-(I)z* loses as a result of the Elsewhere Principle because it contains a lex-lex pointer. So, *-k* wins, being fully specified for the slot and is inserted inside this structure.

5.4.4.2 The Spell-out of the Second Person

When the ɸ-probe includes a structure where there is PerP (default) and ParP in a hierarchical relation respectively and the sgP above the persons hierarchy, the only available competing lexical item is *-(I)n*. The lexical items *-m*, *-k* and *-(I)z* all include the Sp node and they cannot spell-out a syntactic structure which does not include the Sp between Par and sg nodes. Namely, they cannot skip their Sp node for the spell-out of this structure by the cyclic spell-out.[89] The lexical item *-(I)n* has also the Sp node, but the lex-lex pointer from the number node (sg) to the Sp node makes it possible to spell-out the following syntactic structure which is the second singular form.

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[88] Note that this is the case for the lex-lex pointer which allows many possibilities. However, feature-feature pointer which shows the dependency relation does not result in much wider range of application.

[89] Spell-out is taken to be cyclic, with a spell-out attempt after each merge, and each successful spell-out overrides the previous successful spell-outs.

(59)

```
            sgP
           /    \
        ParP      sg
        /   \
            Par
```
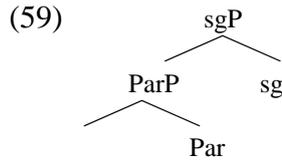
When it comes to the spell-out of the syntactic structure of the second person plural

form, there is no single lexical item to spell-out this structure. Par and sg nodes are

spelled-out by the lexical item *-(I)n* and the pl node is spelled-out by the lexical item

-(I)z, which is possible by the lex-lex pointer it has.

In summary, the lexical items available to the *k* paradigm are *-m*, *-(I)n*, *-k*,

and *-(I)z*. *-m* contains the structure [sg[Sp[Par]]], *-(I)n* contains the structure [sg➡

[Sp [Par]]], *-k* contains the structure [pl[sg[Sp[Par]]] and *-(I)z* contains the structure

[pl➡[sg[Sp[Par]]]].

5.5 Summary and Conclusion

In this chapter, I analyzed the person agreement structures of DD and presented a

Nano-syntactic account of their spell-out mechanism.

I claimed that there were two main agreement types, one of which is verbal

agreement and spelled-out by the *k* paradigm person agreement markers and the

other being nominal agreement spelled-out by the *z* paradigm person agreement

markers. The former establishes a relation between the argument relations and the

functional categories inside a predicate structure. On the other hand, the latter

establishes a relation between the argument relation and the whole predicate

structures (Miyagawa, 2010). I adopt the Agree operation proposed by Chomsky

(2000).

I argue that there is a Pred projection on the whole predicate structure (Baker, 2008, Bowers, 2010). The verbal agreement (the *k* paradigm) occurs inside the PredP allowing further Pred projections which result in combined predicate structures and double agreement. On the other hand, the nominal agreement (the *z* paradigm) occurs outside the PredP, in the C level, not allowing the merge of further predicate structures above it.

For the person and number agreement, I assume the existence of separate functional heads for each person and number value which are in a hierarchical order. The lowest head is Person (default third person), and Participant and Speaker heads are above it respectively. I also assume that the number heads singular and plural are above the person heads, plural being on the highest position.

Finally, I present a Nano-syntactic analysis on the lexicalization of the person and number layers and argue that the third person agreement is the default agreement following Kayne (2000). It is lexicalized by the functional TAM markers so there is no separate lexical item (overt or null) to be inserted into the Person node. It is shown that there are identical lexical items between the *k* paradigm and *z* paradigm 1, although this is not the case between the *z* paradigm 2 and the other paradigms. There are also syncretic lexical items inside a paradigm. It is also observed that some lexical items can be paradigm-specific and not available to the other paradigms whereas some other lexical items are shared by different paradigms leading to different levels in inheritance hierarchies.

CHAPTER 6

CONCLUSION

6.1 The Summary of the Claims

In this thesis, I presented work on the verbal domain of DD and investigated the copulas *i-* and *ol-*, the functional categories, the predicate structures (single and combined predicate structures), and the person agreement mechanism.

I argued that the copula fulfils the syntactic requirements of the functional heads which need to have a visible VP in their accessible domains. The combined predicate structures, which are possible by the iteration of the functional categories in the high predicate (T above T, for example) are analyzed in order to capture the role of the copula in the structure. This combination is the result of the need of a default feature combination to be modified by an additional functional head, or the need of a past event to be carried to an earlier past.

Which copula is merged depends on the structure it is required in. The high copula *i-* is merged when it needs to fulfill the requirement of one of the functional categories from Zone 3 (the highest Zone) and the low copula *ol-* is merged when it requires to satisfy the requirement of one of the functional categories from Zone 1 or 2 (lower Zones) in the combined predicate structures.

In light of the Nano-syntactic framework (i.e. Starke, 2001 and references therein), I proposed an analysis of the spell-out of the Turkish verbal domain (both DD and ST). The Nano-syntactic theory includes the assumption that the terminals, which are sub-morphemic, containing tree structures paired with phonological and

conceptual information stored in the lexicon, are smaller than lexical items. Based on

the basic tenets of Nano-syntax which are Superset Principle, Elsewhere Principle,

Override Effect, and pointers, I follow Starke (2011) Caha and Pantcheva (2012) in

that some lexical items contain pointers, while some do not. In addition to these, I

proposed two types of pointers whose directions are upwards and downwards,

respectively, calling the pointer proposed by them lex-lex pointer (downward). I also

proposed that it represents an independency relation between a lexical item and the

other lexical item which it has a pointer to. The upward pointer which I call feature-

feature pointer shows a dependency relation between the features of a lexical item.

My proposal for *-DI* is that it contains two pointers, one is lex-lex and the

other is feature-feature, while *-mIş* only contains a lex-lex pointer. On the other hand

-Iyor has no pointers; therefore, it has a much narrower range of applications

compared to *-DI* and *-mIş*.

Besides a Nano-syntactic analysis, I also presented an alternative way to

account for the spell-out of the verbal domain of Turkish in light of Distributed

Morphology. I concluded that the Nano-syntax account is superior because DM has

no way of dealing with the data in Turkish.

When it comes to the person agreement mechanism, I claimed that there are

two main agreement types in DD. The first one is verbal agreement (spelled-out by

the *k* paradigm) and the other is nominal agreement (spelled-out by the *z* paradigm).

The former establishes a relation between the argument relations and the functional

categories inside a predicate structure, whereas the latter establishes a relation

between the argument relation and the whole predicate structures (following

Miyagawa, 2010). I adopt the Agree operation proposed by Chomsky (2000).

I argued that there is a Pred projection on the whole predicate structure (Baker, 2008, Bowers, 2010). Verbal agreement occurs inside the PredP and it allows further Pred projections, which results in combined predicate structures and double agreement. However, the nominal agreement occurs outside the PredP, in the C level, and it bans the merge of further predicate structures above it.

As for the structure of person and number categories in the syntax, I assumed the existence of separate functional heads for each person and number value in a hierarchical order, further suggesting that the number heads, singular and plural, are above the person heads, the plural being on the highest position.

Finally, I presented an analysis on the lexicalization of the person and number layers in light of Nanosyntax, and argued that the third person agreement is the default agreement, following Kayne (2000). It is lexicalized by the functional TAM markers so there is no separate lexical item (overt or null) to be inserted into the third person structure. Syncretism and identity exist between the lexical items of the *k* paradigm and *z* paradigm 1 although the lexical items of the *z* paradigm 2 do not show syncretism or similarity compared to the lexical items of the other paradigms.

6.2 Points and Questions for Future Research

Finally, there are some points which are worthy of consideration for the further research and below I will point them out.

The combined predicate structures, where I limit myself to the functional categories of some aspect, tense, and modality exponents, need further research. Other conditions on the predicate structures where more than one predicate structure

combine than the ones proposed here should be searched. I adopt Svenonius's (2008) complex predicate variation not including every detail. There resultative states are thought to belong to lower predicate and the higher predicates are considered to describe an event. The interaction of the resultative states and the TAM categories should be considered as a future study. I also assume that the default values also exist in the structure even if they are changed in the higher predicate and this is a very strong assumption about what a possible predicate structure should be like in a language. Therefore, more cross-linguistic evidence is required to verify that this assumption is also valid for the other languages.

As for the spell-out mechanism of the verbal domain of Turkish, I couch my analysis on the Nanosyntax and show that Distributed Morphology is not sufficient to account for the data of my thesis. This criticism of Distributed Morphology is not conclusive and it is quite possible that there are other ways of accounting the data of Turkish in this framework, which needs further research. One drawback of the Nano-syntactic theory is the possible learning load that it poses on a child during the language acquisition period and this issue, itself, requires a detailed and separate study which would include cross-linguistic data.

The work on person agreement mechanism of DD includes two main paradigms which are the verbal (the *k* paradigm) and nominal (the *z* paradigm) paradigms and excludes the other paradigms which are Paradigm 5 (used with the optative suffix -*(y)A*), Paradigm 6 (used with the imperative forms) and Paradigm 7 (used with the possessive structures). The latter should be considered as a separate study both in DD and ST, although it is related to the *z* paradigm.

Another point that is worthy of investigation is the ST effect on DD, especially on person agreement markers. Although the older generation does not use

the ST person agreement markers widely in their daily lives, they do not consider them ungrammatical. However, the middle generation uses the markers of ST and DD interchangeably and this makes hard to collect data and decide which marker belongs to which dialect. I firmly believe that the language contact between ST and DD and its effects on the grammar of DD should be considered as a valuable research topic, which would be helpful to verify the claims and proposals in this thesis.

Finally, the copulas *i-* and *ol-* show difference in the embedded structures in DD compared to ST (see Sağ, in prep). Although the low copula *ol-* can be used in both matrix and embedded clauses in both dialects, the copula *i-* can also be used in embedded structures unlike ST. The possibility of the copula *i-* in embedded structures in DD shows that those structures are bigger, including the highest possible predicate which are merged with the high copula *i-*. However, the embedded structures in ST are not as high as the ones in DD, only including the predicates which are merged with the low copula *ol-* and not allowing the merge of higher predicates. This difference between the two dialects needs a detailed research, which I believe would be useful for the analysis on the matrix domain presented in this thesis.

REFERENCES

Akar, A. 2004. *Muğla Ağızları.* Muğla: Muğla Üniversitesi Yayınları, 50, Rektörlük Yayınları, 30.

Aksu-Koç, A. 1988. *The Acquisition of Aspect and Modality: The Case of Past Reference in Turkish.* Cambridge: Cambridge University Press.

Aksu-Koç, A. 1995. Some connections between aspect and modality in Turkish. In P. M. Bertinetto, V. Bianchi, Ö. Dahl, M. Squartini, (eds), *Temporal Reference, Aspect and Actionality: Typological Perspectives.* Vol. 2, Torino: Rosenberg & Sellier, 271-287.

Anderson, S. 1992. *A-morphous Morphology.* Cambridge: Cambridge University Press.

Arslan, F. 1993. *Tavas Yöresi Ağzı/Denizli/,* S.Ü. Türk Dili mez. tezi, Konya.

Arslan-Kechriotis, C. 2006. *Case as an Uninterpretable Feature.* Ph.D. dissertation. Boğaziçi University.

Bacanlı, E. 2000. Tavas ağızları söz varlığı/Denizli/, *TK, S.* 449. 544-576.

Baker, M. 2008. *The Syntax of Agreement and Concord.* Cambridge: Cambridge University Press.

Bayırlı, İ. 2012. *On Suffixhood and Verbalness: A Mirror Theoretic Approach.* MA Thesis, Boğaziçi University.

Bozbıyık, A. 1976. *Denizli-Garipköyü Ağzı.* İ.Ü. Türk Dili mez. tezi, İstanbul.

Bowers, J. 2010. Arguments as relations. *Linguistic Inquiry, Monograph 58.* MIT Press. Cambridge, Massachusetts.

Caha, P. 2009. *The Nanosyntax of Case.* Ph.D. thesis, University of Tromsø.

Caha, P. and Pantcheva, M. 2012. Contiguity beyond linearity: Modelling cross-dimensial syncretisms. Presented at *Workshop on the Representation and Selection of Exponence* (WoRSE), June 7, 2012.

Canbaz, S. 1997. *Tanıklarıyla Denizli Ağzı Sözlüğü.* Atatürk Ü. Türk Dili mez. tezi, Erzurum.

Chomsky, N. 1993. A minimalist program for linguistic theory. In. K. Hale and S. J. Keyser (eds), *The View from Building 20*, Cambridge, Mass.: MIT Press. 1-52.

Chomsky, N. 1995. *The Minimalist Program.* Cambridge, Mass.: MIT Press.

Chomsky, N. 2000. Minimalist inquiries. In R. Martin, D. Michaels, J. Uriagereka (eds), *Step by Step: Essays on Minimalism in Honor of Howard Lasnik*. Cambridge, Mass.: MIT Press. 89-155.

Chomsky, N. 2001. Derivation by phase. In Michael Kenstowicz (ed.), *Ken Hale: A Life in Language*. Cambridge, MA: MIT Press, pp. 1-52.

Chomsky, N. 2005. Three factors in language design. *Linguistic Inquiry* 36: 1-22.

Chomsky, N. 2007. Approaching UG from below. In U. Sauerland, H. M. Gartner (eds), *Interfaces + Recursion = Language? Chomsky's Minimalism and the View from Syntax-Semantics*. Berlin: Mouton de Gruyter. 1-29.

Chomsky, N. 2008. On phases. In R. Freidin, C. Otero, M. L. Zubizarreta (eds), *Foundational Issues in Linguistic Theory*. Cambridge, Mass.: MIT Press. 133-166.

Cinque, G.1999. *Adverbs and Functional Heads: A Cross-linguistic Perspective*. Oxford University Press, New York.

Cinque, G. 2001. A note on mood, modality, tense and aspect affixes in Turkish. In E. E. Taylan (ed.), *The Verb in Turkish*, Amsterdam: John Benjamins, pp. 47-59.

Comrie, B. 1976. *Aspect*. Cambridge: Cambridge University Press.

Derin, İ. 1995. *Acıpayam ve Çameli (Denizli) İlçeleri Ağızları,* G. Ü. Türk Dili Yüksek Lisans tezi, Ankara.

Embick, D. 1995. Mobile inflections in Polish. In J. N. Beckman (ed), *Proceedings of NELS 25:2*, GLSA, University of Massachusetts, Amherst, 127-142.

Enç, M. 2004. Copulas and functional categories in Turkish. In *MITWPL 46: Proceedings of WAFL 1*, Cambridge, MA: MITWPL.

Erdal, M. 2000. Clitics in Turkish. In A. Göksel and C. Kerslake, *Studies on Turkish and Turkic Languages. Proceedings of the 9th International Conference on Turkish Linguistics.* Wiesbaden, Harrassowitz, 41-48. (Turcologica 46)

Erdal. M. 2004. A grammar of Old Turkic. *Handbook of Oriental Studies. Central Asia, v.3.* Boston: Brill.

Fuss, E. 2004. *The Rise of Agreement: A Formal Approach to the Syntax and Grammaticalization of Verbal Inflection.* Phd. dissertation. Johann- Wolfgang- Goethe University.

Givon, T. 1976. Topic, pronoun and grammatical agreement. In C. Li (ed.), *Subject and Topic.* New York: Academic Press. 149-188.

Göksel, A. 1997. Morphological asymmetries between Turkish and Yakut. In K. İmer & N. E. Uzun (eds.) *Proceedings of the VIIIth International Conference on Turkish Linguistics.* Ankara: Ankara University publications, pp. 69–76.

Göksel, A. 2001**.** The auxiliary verb at the morphology-syntax interface. In E. Erguvanlı Taylan (ed.), *The Verb in Turkish*, 151-181. Amsterdam: John Benjamins.

Göksel, A. 2003. Syntactic head or morphological buffer? The auxiliary verb in Turkish. In A.S. Özsoy, E. Taylan, A. Koç, D. Akar and M. Nakipoğlu-Demiralp (eds.), *Studies in Turkish Linguistics; Proceedings of the Tenth International Conference on Turkish Linguistics*, 49-57. Istanbul: Bogazici University Press.

Göksel, A. 2006. Pronominal participles in Turkish and lexical integrity**.** *Lingue e Linguaggio, IV.2.*

Göksel, A. and Kerslake, C. 2005. [Third reprint 2010]. *Turkish, A Comprehensive Grammar*. London: Routledge.

Gülensoy, T. and E. Alkaya, 2003. *Türkiye Türkçesi Ağızları Bibliyografyası.* Ankara: Akçağ Yayınları.

Gürel, M. 1975. *Denizli'nin Çal Kazası ve Yöresi (Yukarı Seyid- Mahmud Gazi) Ağızları.* İ.Ü. Türk Dili mez. tezi, İstanbul.

Güven, M. 2004. *Adverbials in Turkish: The Third Parameter in Aspectual Interpretation.* Ph.D. dissertation. Boğaziçi University.

Hale, K. and Keyser, J. 1997. On the complex nature of simple predicators. In A. Alsina, J. Bresnan, and P. Sells (eds), *Complex Predicates*, pp. 29-65. CSLI, Stanford, Ca.

Halle, M. 2000. Distributed morphology: impoverishment and fission. In J. Lecarme, J. Lowenstamm and U. (ed.), *Shlonsky Research in Afroasiatic Grammar, Papers from the Third Conference on Afroasiatic Languages, Sofia Antipolis, 199*, pp. 131-156. Jonh Benjamins Publishing Company, Philadelphia, PA, USA.

Halle, M. & Marantz, A. 1993. Distributed morphology and the pieces of inflection. In K. Hale and S. J. Keyser (ed), *The View from Building 20*, MIT Press, Cambridge, 111-176.

Halle, M. & Marantz, A. 1994. Some key features of Distributed Morphology. In A. Carnie and H. Harley (ed), *MITWPL 21: Papers on Phonology and Morphology*, MITWPL, Cambridge, 275-288.

Harley, H. 1994. Hug a tree: deriving the morphosyntactic feature hierarchy. In A. Carnie and H. Harley (ed), *MITWPL 21: Papers on Phonology and Morphology*, MITWPL, Cambridge, 275-288.

Harris, J. 1994. The syntax-phonology mapping in Catalan and Spanish clitics. In A. Carnie and H. Harley (ed), *MITWPL 21: Papers on Phonology and Morphology*, MITWPL, Cambridge, 321-353.

Haspelmath, M. and Sims, A. D. 2010. *Understanding Morphology*. London: Hodder Education.

İkizoğlu, Ş. 1976. *Ortaköy (Denizli) ve Çevresi Ağzı,* İ.Ü. Türk Dili mez. tezi, İstanbul.

Johanson, L. 1971. *Aspekt im Türkischen. Vorstudien zu einer Beschreibung des Türkeitürkischen Aspektsystems.* Uppsala: Alquist and Wiksell.

Kabak, B. 2007. Turkish suspended affixation. *Linguistics* 45 (2): 311-347.

Karahan, L. 1996. *Anadolu Ağızlarının Sınıflandırılması.* Ankara: Atatürk Kültür, Dil ve Tarih Yüksek Kurumu Türk Dil Kurumu Yayınları, 630.

Karahisarlı, S. C. 1983. *Çivril İlçesi Ağızları Çalışması/Denizli/*, A.Ü. DTCF Türk Dili mez. tezi, Ankara.

Kayne, R. 1994. *The Antisymmetry of Syntax*. Cambridge, Mass.: MIT Press.

Kayne, R. 2000. *Parameters and Universals*. Oxford; New York: Oxford University Press.

Kelepir, M. 2001. *Topics in Turkish Syntax: Clausal Structure and Scope*. Doctoral dissertation, MIT. Distributed by MITWPL.

Kelepir, M. 2003. Olmak, değil, var ve yok. *Proceedings of the XVIth Dilbilim Kurultayı* (National Linguistics Conference), 23-24 May, Hacettepe Üniversitesi, Ankara.

Kelepir, M. 2007. Copular forms in Turkish, Turkmen and Noghay. In *Proceedings of the Second Workshop on Altaic Formal Linguistics,* 11-13 October 2004, Boğaziçi University. Distributed by MIT Working Papers in Linguistics, Cambridge, Massachusetts.

Kelepir, M. 2012. The presence/absence of Tense and Evidentiality in nominalized complement clauses: some insights from three Turkic languages. Ms. Bogazici University.

Korkmaz, Z. 1994. *Güney-Batı Anadolu Ağızları: Ses Bilgisi (Fonetik)*. Ankara: Atatürk Kültür, Dil ve Tarih Yüksek Kurumu Türk Dil Kurumu Yayınları, 583.

Kornfilt, J. 1986. The stuttering prohibition and morpheme deletion in Turkish. In A. Aksu Koç & E. Erguvanlı-Taylan (eds.) *Proceedings of the Second International Conference in Turkish Linguistics*. Istanbul: Boğaziçi University Publications #400, pp. 59–83.

Kornfilt, J. 1996. On some copular clitics in Turkish. In A. Alexiadou, N. Fuhrhop, P.Law and S. Loehken (eds.), *ZAS Papers in Linguistics*, (pp. 96-114). Berlin: Zentrum für Allgemeine Sprachwissenschaft 6.

Kornfilt, 1997. *Turkish.* London ; New York : Routledge.

Lewis, G. L. 1967. *Turkish Grammar.* Oxford.

Miyagawa, S. 2001. EPP, scrambling and wh-in-situ. In M. Kenstowicz (ed.), *Ken Hale: A Life in Language*. Cambridge, MA: MIT Press.

Miyagawa, S. 2010. *Why Agree? Why Move? Unifying Agreement-Based and Discourse-Configurational Languages.* Linguistic Inquiry, Monograph 54. MIT Press. Cambridge, Massachusetts.

Noyer, R. 1997. *Features, Positions and Affixes in Autonomous Morphological Structure.* Garland Publishing, New York. Revised version of 1992 MIT Doctoral Dissertation.

Ok, C. 1968. *Acıpayam Ağzı/Denizli/.* İ. Ü. Türk Dili mez. tezi, İstanbul.

Önder, N. 1988. *Denizli Yöresinin Ses Açısından Başlıca Özellikleri.* G.Ü. Türk Dili mez. tezi, Ankara.

Özsoy, A. S. 2001. On 'small' clauses, other 'bare' verbal complements and feature checking in Turkish. In E. Erguvanlı-Taylan (ed.), *The Verb in Turkish* pp. 213 –237, Amsterdam: John Benjamins.

Pantcheva, M. 2009. Directional expressions cross-linguistically: nanosyntax and lexicalization. In P. Svenonius, G. Ramchand, M. Starke, and K. T. Taraldsen (eds), *Nordlyd 36.1, special issue on Nanosyntax*, pp. 7– 39. CASTL, Tromsø. http://www.ub.uit.no/baser/nordlyd/

Pollock, J.Y. 1989. Verb movement, UG and the structure of IP. *Linguistic Inquiry 20*.3. 365-424.

Pesetsky, D. and Torrego, E. 2007. The syntax of valuation and the interpretability of features. In S. Karimi, V. Samiian, W. Wilkins (eds), *Phrasal and Clausal Architecture*. Amsterdam: John Benjamins. 262-294.

Ritter, E. and Harley, H. 2002. Person and number in pronouns: a feature-geometric analysis. *Language*. Vol. 78, No. 3. Linguistic Society of America. 482-526.

Sağ, Y. 2013a. Denizli ağzında tümcesel tümleçlerin yapısı: Ölçünlü Türkçe ile karşılaştırmalı bir çalışma. [The structure of sentential complements in the Denizli dialect: A comparison with Standard Turkish] *Proceedings of the 26th Dilbilim Kurultayı (All-Turkey Linguistics Conference),* 24-26 May 2012, Süleyman Demirel Üniversitesi, Isparta.

Sağ, Y. 2013b. Copula in Turkish. *MWPL 67: Proceedings of the 8th Workshop on Altaic Formal Linguistics (WAFL 8),* MITWPL.

Sağ, Y.in press. The spell-out of combined predicate structures in Turkish: a nano-syntactic analysis. Work presented at *ICTL*, Middle East Technical University, Ankara-Turkey, 18-21 September, 2012.

Sağ, Y. in prep. The copula and the embedded Structures in Denizli Dialect of Turkish. Ms. Boğaziçi University.

Sezer, E. 2001. Finite inflection in Turkish. In E. Erguvanlı-Taylan (ed.), *The Verb in Turkish* pp. 1 –45, Amsterdam: John Benjamins.

Slobin, D. I. and Aksu-Koç, A. 1982. Tense, aspect and modality in the use of the Turkish evidential. In P. Hopper, (ed.), *Tense-Aspect: Between Semantics and Pragmatics.* Amsterdam: John Benjamins, 185-200.

Smith, C. S. 1997. *The Parameter of Aspect*. Dordrecht. Kluwer. Second ed.

Starke, M. 2001. *Move Reduces to Merge: A Theory of Locality*. Ph.D. thesis, University of Geneva. Available at http://ling.auf.net/lingBuzz/000002.

Starke, M. 2004. On the inexistence of specifiers and the nature of heads. In A. Belletti (ed), *Structures and Beyond: The Cartography of Syntactic Structures*, vol. 3, pp. 252-268. Oxford University Press, New York.

Starke, M. 2009. Nanosyntax: a short primer to a new approach to language. In P. Svenonius, G. Ramchand, M. Starke & K. T. Taraldsen (ed.) *Special Issue on Nanosyntax, Nordlyd 36.1.* CASTL, Tromso.

Starke, M. 2011. *Issues in Nanosyntax. Research seminar,* CASTL, University of Tromso.

Svenonius, P. 2008. Complex predicates and functional squence. In P. Svenonius and I. Tolskaya (ed.), *Tromso Papers on Language & Linguistics: Nordlyd 35* CASTL, Tromso.

Siewierska, A.2004. *Person.* Cambridge: Cambridge University Press.

Tanrıkulu, Ö. 1973. *Çivril ve Yöresi Ağızları ve Folkloru/Denizli/*, A. Ü. DTCF Türk Dili mez. tezi, Ankara.

Taraldsen, T. and Medov´a, L. 2007. The Czech locative chameleon. In M. Ba.si´c, M. Pantcheva, M. Son, and P. Svenonius (eds), *Tromsø Working Papers on*

Language and Linguistics: Nordlyd 34.2, Special Issue on Space, Motion, and Result, pp. 300–319. University of Tromsø, Tromsø. Available at http://www.ub.uit.no/baser/nordlyd/.

Taylan, E. E. and Aksu-Koç, A. 2001. Adverbs at the interface of tense, aspect and modality: evidence from Turkish. In. T. Mortelmans, J. Mortelmans, W.D. Mulder (eds), In *In the Mood for Mood*. Amsterdam: Rodopi. 101-116.

Taylan, E. E. 1997. Türkçe'de görünüş, zaman ve kiplik ilişkisi: -DI biçimbirimi [the relation between tense, aspect and modality in Turkish: the -DI morpheme]. In D. Zeyrek, S. Ruhi (eds), *XI. Dilbilim Kurultayı: Bildiriler* (*Proceedings of the 11th Linguistics Conference)*, Ankara: ODTÜ Yayınları. 1-13.

Taylan, E. E. 2001. On the relation between temporal/ aspectual adverbs and the verb form in Turkish. In E. E. Taylan (ed.) *The Verb in Turkish*. Amsterdam: John Benjamins. 97-128.

Tekin, T. 1968. *A Grammar of Orkhon Turkic*. Bloomington: Indiana University Publications. Uralic and Altaic Series; v. 69.

Temürcü, C. 2007. *A Semantic Framework for Analysing Tense, Aspect and Mood: An Application to the Ranges of Polysemy of -Xr, -Dir, -Iyor and Ø in Turkish.* Ph.D. dissertation, University of Antwerp.

Tok, T. 2003. Acıpayam ve yöresi ağızlarının ses ve şekil bilgisi özellikleri (Yerel ve Arkaik kelimelerden örnekler), *1. Acıpayam Sempozyumu,* 1–3 Aralık 2003.

Tok, T. 2006a. Denizli ve yöresi ağızlarının ses ve şekil bilgisi özellikleri. *Türk Hâkimiyetinin 800. Yılı Anısına, Uluslararası Denizli ve Çevresi Tarih ve Kültür Sempozyumu,* Pamukkale Üniversitesi, 6–7–8 Eylül 2006.

Tok, T. 2006b. Buldan ve yöresi ağızları ses ve şekil bilgisi özellikleri. *Buldan Sempozyumu,* Pamukkale Üniversitesi, 23–24 Kasım 2006.

Tok, T. 2006c. Çal ve yöresi ağızlarının genel özellikleri. *Çal Sempozyumu,* Pamukkale Üniversitesi, 1–3 Eylül 2006.

Tok, T. 2008. Denizli ili ağızlarında zaman eklerinin kullanımı. *Uluslararası Ağız Çalıştayı, TDK,* 25-30 Mart 2008, Şanlıurfa.

Tok, T. 2008. Denizli ili ağızlarında vurguya dayalı ünsüz düşmesi (Consonant modification based on accent in the dialects of the province of Denizli). *Turkish Studies-Türkoloji Araştırmaları, International Periodical For The Languages, Literature and History of Turkish or Turkic, Türkiye Dışındaki Türkler Dosyası,* 13.sayı, Aralık 2008, s. 841-848.

Tok, T. 2009. Denizli ve yöresine yerleşen Balkan Türkleri ve genel ağız özellikleri. *l. Uluslararası Balkanlarda Tarih ve Kültür Kongresi,* 10 Mayıs-16 Mayıs 2009, Priştine-Kosova.

Yavaş, F. 1980. *On the Meaning of the Tense and Aspect Markers in Turkish*. Ph.D. dissertation, University of Kansas.

Yu, A. C. and Good, J. C. 2000. Morphosyntax of two Turkish subject pronominal paradigms. In *Proceedings of NELS 30*, 759-773.