AN ANTISYMMETRY ACCOUNT OF THE SYNTACTIC POSITIONS OF NOMINAL ARGUMENTS IN TURKISH: IMPLICATIONS FOR CLAUSAL ARCHITECTURE

by

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Abstract

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MIHO NAGAI

Advisor: Professor Marcel den Dikken

This dissertation examines the syntactic positions of nominal arguments in Turkish, looking at Turkish clausal structure based on Aktionsart (aspectual) properties (e.g. Vendler 1967) of (dynamic) predicates from the perspective of Antisymmetry (Kayne 1994). It has been argued that indefinite/non-specific arguments appear syntactically in lower positions than definite/specific arguments in some languages. While definite/specific arguments can be scrambled away from their base positions, indefinite/non-specific ones stay in situ (e.g. de Hoop 1992; Diesing 1992; Kornfilt 1984). Even though previous studies have shown that in Turkish specific arguments appear syntactically higher than non-specific arguments (e.g. Kennelly 1994; Zidani-Eroğlu 1997; Kelepir 2001), the question of where *exactly* they appear within a particular syntactic domain has not been clearly addressed. Based on the syntactic position and the behavior of Turkish nominals and (low) adverbs, I argue that a bare internal argument does not occur in the complement position of a verb; rather, it occurs in the specifier position of VP (cf. Larson 1988).

The current proposal has important implications for Turkish clausal architecture: (*i*) Aktionsart (aspectual) properties of predicates play a crucial role in determining their syntactic structures, (*ii*) there is an aspectual projection (AspP) in accomplishments/activities, but not in achievements; this study thus provides evidence that the Vendlerian/Dowtian distinction between

accomplishments and achievements is syntactically real ,and (*iii*) clause structure obeys (a weak version of) Antisymmetry. This study also provides implications for the relation between syntax and information structure. I show that the syntax-prosody boundary is associated with the semantic boundary between the presuppositional and the non-presuppositional interpretations, which is (at) the edge of *v*P. Crucially, the edge of *v*P serves as the boundary for both prosody and presuppositionality (at least in Turkish). This syntactic boundary/domain interacts with the information structure where topic/focus elements in discourse contexts are placed in particular syntactic position/domains. Languages use different linguistic cues/strategies in the realization of topic/focus. Such linguistic signals are typically the same as the signals for marking grammatical functions (e.g. case morphology, agreement, word order, and so on). In the case of Turkish, definite/specific DPs (and topics) occur above TP (SpecTP/SpecTopP) and indefinite/non-specifics (foci) occur within *v*P (Spec*v*P and SpecVP) (or a immediately pre-verbal position). Those particular syntactic specifier positions are clearly associated with the role of topic-comment/information structure, not just grammatical functions. It has been shown from Turkish data that syntactic positions of nominals (scrambling/word order) and prosodic prominence interplay in order to signal and maintain the topic-comment/information structure, which can also be observed across languages (such as German and Russian). Both word order and prosody are necessary to realize the information structure in Turkish; thus, neither syntax nor prosody should be reduced.

To my brother, Chihiro (1979–2011)

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Contents

List of Abbreviations

ACC	accusative
AOR	aorist
CAUS	causative
CL	classifier
DAT	dative
FUT	future
INF	infinitive
LOC	locative
NEG	negation
NOM	nominative
Obj	object
PASS	passive
PERF	perfective
POSS	possessive
PROG	progressive
SPEC	specifier
Subj	subject
TOP	topic
1S	1st person singular
1PL	1st person plural
2S	2nd person singular
2PL	2nd person plural
3S	3rd person singlar

CHAPTER 1: INTRODUCTION

The goal of this dissertation is to determine the syntactic positions of nominal arguments in Turkish, investigating Turkish clausal structure based on Aktionsart (aspectual) properties (e.g. Vendler 1967) of (dynamic) predicates from the perspective of Antisymmetry (Kayne 1994). The question of where nominal arguments (bare arguments and case-marked arguments) occur has been widely studied in the fields of syntax and semantics (e.g. Diesing 1992; Kratzer 1996 for English and German; de Hoop 1992 for Dutch). It has been argued that indefinite/non-specific arguments appear syntactically in lower positions than definite/specific arguments in some languages. While definite/specific arguments can be scrambled away from their base positions, indefinite/non-specific ones may stay in situ (e.g. de Hoop 1992; Diesing 1992; Kornfilt 1984). Even though previous studies have shown that in Turkish specific arguments appear syntactically higher than those of non-specific arguments (e.g. Kennelly 1994; Zidani-Eroğlu 1997; Kelepir 2001), the question of where *exactly* they appear within a particular syntactic domain has not been clarified.

In this study, I examine the syntactic positions of nominals in Turkish, drawing on evidence from the syntactic positions of (low) adverbs and from various syntactic structures on the basis of the Aktionsart properties of predicates. I specifically claim that in Turkish accomplishments are structurally different from achievements. Examine (1), which contains a low adverb as well as an unaccusative verb like *gel-* 'arrive', which is considered to be an achievement verb (e.g. Vendler 1967; Dowty 1991):

(1) a. Adam *çabuk* gel-di
man quickly arrive-PAST
'The man arrived quickly.'

b. **Çabuk* adam gel-di
quickly man arrive-PAST
'A man arrived quickly.'

In (1a), the adverb *çabuk* 'quickly' occurs to the right of the definite noun *adam* 'man' while in (1b), the adverb cannot occur to the left of the indefinite noun *adam* 'man'. The first question is why (1b) is ungrammatical. Before we answer this question, let us see another example of an unaccusative sentence with a low adverb. Examine (2):

(2) a. Hastalık *çabuk* yayıl-dı
disease quickly spread-PAST
'The disease quickly spread.

b. (?)*Çabuk* hastalık yayıl-dı
quickly disease spread-PAST
'A disease quickly spread.'

In (2a), the adverb occurs to the right of the definite noun *hastalık* 'disease', which patterns with (1a). In (2b), however, we see a clear contrast with (1a); even though the sentence does not sound perfect, it is much more acceptable than the ungrammatical (1b) example above. The second question, then, is why (2b) sounds much better than (1b). I argue that this is because the example (2) is *not* an achievement but rather an accomplishment. The specific assumption here is that the availability for (low) adverb positions differs, due to the structural difference between an achievement and an accomplishment.

Importantly, certain structures do not allow low adverb modification at all, which is not restricted to unaccusative constructions like (1) and (2). Consider the following example containing a bare internal object and a low adverb:

(3) a. Adam *çabuk* kitap oku-du
man quickly book read-PAST
'The man quickly read a book.'

b. *Adam *çabuk* para bul-du
man quickly money find-PAST
'The man quickly found a coin.'

The example (3) is a transitive sentence. Both (3a) and (3b) contain a bare object and a low adverb; however, as can be seen, (3a) is grammatical whereas (3b) is ungrammatical. As we inquired in the unaccusative examples in (1) and (2), once again, the question is why there is a grammatical difference between the (*a*)-examples and the (*b*)-examples in (1) and (3) above. The fact again is that (3a) is an accomplishment and (3b) is an achievement. Just like the unaccusative example (1b) which

is ungrammatical, the transitive example (3b) is also ungrammatical; this is because both (1b) and (3b) are achievements, and the position of a low adverb is not available. The dissertation aims to demonstrate where in syntax (bare) nominal arguments occur and why a low adverb cannot occur in achievements (with a bare object) while it can occur in accomplishments (with a bare object), looking at aspectually different predicates and the location and the behavior of (low) adverbs.

In Chapter 2, the Turkish structures at issue in this dissertation will be reviewed. We start with the behavior of a nominal argument and case morphology in 2.1, and further look at different types of sentences (transitives and intransitives) in 2.2, 2.3 and 2.4. We see from the literature that a definite/specific nominal occurs syntactically higher than an indefinite/non-specific nominal (e.g. Kornfilt 1984; Kennelly 1994; Zidani-Eroğlu 1997; Kelepir 2001; Ketrez 2005). It has also been shown that syntactic positions of nominal arguments are associated with the (non)-presuppositional domain (e.g. Diesing 1992). The data suggests that, as discussed in Diesing (1992), in Turkish, too, specific (or presuppositional) nominals must be outside of *v*P/VP and non-specific (or non-presuppositional) nominals must stay within *v*P/VP.

Later, in 2.5, we will review head- and pseudo-incorporation analyses (e.g. Kornfilt 1984 for a head noun incorporation analysis; Öztürk 2005, 2009 for a pseudo-incorporation analysis). Incorporation approaches assume that a bare noun and a verb are adjacent to each other; that is, a bare internal argument must be in the complement position of a verb. Since indefinite/non-specific bare nouns always occur in the pre-verbal position, it has been claimed that a bare noun is incorporated into a verb, forming a complex predicate. However, as we closely examine incorporation analyses, we will see that these analyses do not correctly predict the syntactic positions for (bare) subjects and objects. For instance, the contrast between the two sentences in (3) cannot be accounted for by the incorporation analysis:

(3) a. Adam *çabuk* kitap oku-du
man quickly book read-PAST
'The man quickly read a book.'

b. *Adam *çabuk* para bul-du
man quickly money find-PAST
'The man quickly found a coin.'

If VPs containing a bare noun were treated in the same way, as in head/pseudo-incorporation analyses, one would need to explain why the low adverb *çabuk* 'quickly' cannot occur in (3b) whereas it can in (3a). I argue that a bare internal argument does not occur in the complement position of a verb; rather, it occurs in the specifier position of VP (cf. Larson 1988). The example (3b) is ungrammatical because of the structural difference between (3a) and (3b); that is, in (3a), there is a space available for a low adverb to occupy while in (3b), there is no space for a low adverb to occupy. Specifically, in Chapter 3, I postulate that syntactic structures of the (*a*)-example and the (*b*)-example are different due to their *aspectual* (Aktionsart) properties (i.e. *achievements*, *activities*, *accomplishments*, and *states*) (Vendler 1967), which has never been discussed in previous studies. In Section 2.6, crucial data towards the analysis will be reviewed and some important questions are addressed with respect to a sentence with low adverb modification.

Section 2.7 considers syntactic accounts that discuss the syntactic position and the behavior of Turkish nominals and (low) adverbs. In particular, I review Aydemir (2004) and Kelepir (2001), in which the relative syntactic positions for nominal arguments and low adverbs are presented. I show that neither of these accounts can explain the (un)grammaticality of (3)/(4); since they do not identify the exact positions of (bare) internal arguments and low adverbs, I do not adopt the previous accounts. Instead, I maintain that syntactic structures are different depending on Aktionsart (aspectual) properties of predicates. In Section 2.8, the theoretical framework adopted in this dissertation is discussed. I adopt the (weak) view of Antisymmetry

(i.e. Dynamic Antisymmetry) in which the LCA holds only at PF (Moro 2000) and assume that phrase structure in Turkish follows Antisymmetry.

Chapter 3 discusses the syntax of Aktionsart (aspect). I propose that the bare internal argument of a verb is generated in the specifier of VP (SpecVP), not in the complement position of a verb (cf. Larson 1988). I further examine different types of predicates on the basis of aspectual properties (e.g. Vendler 1967) and show that accomplishments and achievements are structurally different. I demonstrate that in Turkish accomplishments with a bare internal object (and activities) are durational while achievements are punctual since they systematically reject a durational modifier. I argue that there is an aspectual projection (AspP) on top of VP. The concept of AspP is similar to Ramchand's (2008) ProcessP, a projection that indicates a dynamic process. Though Ramchand's ProcessP does not imply duration, I propose that AspP projects only in events that are durational. That is, an accomplishment (and activity) structure has AspP while an achievement structure does not. Further, I illustrate that both an accomplishment V and an achievement V take a secondary predicate (Result Phrase (ResP) expressing a result state) as its complement.

Following Dynamic Antisymmetry, and establishing syntactic structures based on Aktionsart properties, we will see that multiple specifiers are not allowed at PF. This is the so-called *weak* version of Antisymmetry. The strong version (which says that all structures must be fully asymmetrical at every level of representation, and that all ingredients of the structure, including ones that do not receive a phonological matrix, are subject to linearization in keeping with the LCA). On the other hand, the weak version (which says that the syntactic structure that is mapped onto a PF representation must obey Antisymmetry, and that only material that receives a phonological matrix is subject to linearization, hence to the LCA). The

(un)grammaticality of (3) above can be explained when the weak version of Antisymmetry is considered.

Chapter 4 examines how prosody supports the syntactic structures proposed in Chapter 3. Following the syntax-prosody interface account in Turkish (Özçelik & Nagai 2011; Nagai & Özçelik 2012), I assume that sentential stress is syntactically assigned and that there is a correlation between syntactic structure and prosodic phrasing. I also demonstrate that a prosodic boundary that corresponds to a particular syntactic projection (i.e. *v*P) is associated with the boundary between the presuppositional and the non-presuppositional domains. Prosodic evidence shows that non-specifics never move out of *v*P whereas specifics must move from *v*P/VP to a higher position. The postulation that multiple specifiers are ruled out at PF is also supported by prosody. This shows that prosodic facts become meaningful only when the Antisymmetric view of syntax is taken into consideration.

Finally, Chapter 5 concludes the dissertation with a summary and implications of the current proposal. The most essential theoretical implications of the discussion in this thesis are that there is an aspectual projection (AspP) in accomplishments/activities, but not in achievements, and clause structure obeys Antisymmetry, such that all and only the material in the syntactic structure sent to PF that is subject to linearization must engage in asymmetrical c-command relations.

CHAPTER 2: NOMINAL POSITIONS IN TURKISH

In this chapter, I review the structures of Turkish at issue in this dissertation, concentrating on noun phrases and their position in a sentence.

We start, in Section 2.1, with the contrast between bare noun phrases and case-marked phrases in argument positions, and then look further at different types of sentence structures in Section 2.2 (transitives) and Sections 2.3 and 2.4 (intransitives). In Section 2.5, two incorporation approaches (i.e. head-incorporation and pseudo-incorporation analyses) are discussed. In Section 2.6, data and research questions are presented. In Section 2.7, two syntactic accounts that discuss the relative syntactic position as well as the behavior of Turkish nominals and (low) adverbs are reviewed. In Section 2.8, the theoretical framework I am adopting in this dissertation is discussed.

2.1 Bare nouns vs. (morphologically) case-marked nouns

2.1.1 Direct objects

In Turkish, definiteness/specificity can be marked with case morphology. I generally follow Enç's (1991) definition of definiteness and specificity. In Enç (1991), definites and specifics are introduced in the previous discourse (i.e. D-linking). Definites are all specifics and require a strong antecedent. On the other hand, specifics do not have to be definites since they do not require strong (or definite) antecedents but only require some link to the prior discourse (Enç 1991) or what the speaker has in mind (Kelepir 2001). Specifics are also considered to be 'presuppositional', asserting the existence of the entity (e.g. Diesing 1992).

As is illustrated in (1a) and (1b), a bare object is indefinite/non-specific while a morphologically case-marked object is definite/specific (Enç 1991):

(1) a. John **pasta** ye-di.
John cake eat-PAST
'John ate cake.'

b. John **pasta-yı** ye-di.
John cake-**ACC** eat-PAST
'John ate the cake.'

It has been assumed that indefinite/non-specific noun phrases do not move from their base-positions whereas specific noun phrases can be scrambled[1] (e.g. Kornfilt 1984, 1997; Dede 1986; Enç 1991). Let us take a look at the occurrence of an adverbial phrase and the word order facts. Consider (2):

(2) a. John (dün/çatal-la) **elma** (*dün/*çatal-la) ye-di.
John yesterday/fork-with apple yesterday/fork-with eat-PAST
'John ate an apple/apples yesterday/with a fork.'

b. John (dün/çatal-la) **elma-yi** (dün/çatal-la) ye-di.
John (yesterday/fork-with) apple-ACC (yesterday/fork-with) eat-PAST
'John ate the apple yesterday/with a fork.'

In (2a), an adverbial phrase cannot intervene between a non-case marked object and a verb while in (2b) it can appear relatively freely. The first thing we notice from this observation is that a bare object should appear immediately pre-verbally (Kornfilt 2003).

2.1.2 Subjects

The situation is different, however, in the case of subjects[2] of root clauses, as illustrated in (3), (4) and (5):

(3) Adam kitap/kitab-ı oku-du. (transitive)
man book/book-ACC read-PAST
'The man/ ??/* A man read a/the book.'

(4) Adam koş-tu. (unergative)
man run-PAST
'The man/ *A man ran.

(5) Adam gel-di. (unaccusative)
man arrive-PAST
'The/A man arrived.'

[1] In the following chapter, I argue that a case-marked object must be moved out of its base-position.
[2] What is meant by "subjects" here is *surface* subjects in the canonical "S(O)V" word order.

It has been observed that a nominative subject is morphologically unmarked in Turkish (e.g. Kornfilt 1997). In (3), the subject of a transitive sentence is always definite/specific. In (4), the subject of an unergative sentence is also always definite/specific. In (5), the subject of an unaccusative sentence is ambiguous between a definite/specific and an indefinite/non-specific interpretation (e.g. Kornfilt 1997; Göksel & Kerslake 2005). At first glance, it is not evident where exactly a bare subject in a sentence like (5) can appear in the syntax. To see some contrast between definite/specific and indefinite/non-specific noun phrases, we can again take a look at where an adverbial phrase occurs:

(6) a. Adam çabuk kitap oku-du. (transitive; non-case-marked object)
man quickly book read-PAST
'The man/*A man read a book quickly.'

b. *Çabuk adam kitap oku-du.
quickly man book read-PAST
'*The man/ *A man read a book quickly.'

c. *Adam kitap çabuk oku-du.
man book quickly read-PAST
'*The man/ *A man read a book quickly.'

(7) a. *Adam çabuk kitab-ı oku-du. (transitive; case-marked object)
man quickly book-ACC read-PAST
'The man/ *A man read the book quickly.'

b. *Çabuk adam kitab-ı oku-du.
quickly man book-ACC read-PAST
'*The man/ *A man read the book quickly.'

c. Adam kitab-ı çabuk oku-du.
man book-ACC quickly read-PAST
'The man/ *A man read the book quickly.'

(8) a. Adam çabuk koş-tu. (unergative)
man quickly run-PAST
'The man/ *A man ran quickly.'

b. *Çabuk adam koş-tu.
quickly man run-PAST
'*The man/ *A man ran quickly.'

(9) a. Adam çabuk gel-di. (unaccusative)
man quickly arrive-PAST
'The man/ *A man arrived quickly.'

b. Çabuk adam gel-di.
quickly man arrive-PAST
'*The man / A man arrived quickly.'

As can be seen, the definite/specific subject can appear immediately before the adverb *çabuk* 'quickly'. In unergatives like (8), *adam* 'man' must always be definite/specific[3], and the adverb *çabuk* should appear to the right of the definite *adam* 'man'. As for unaccusatives like (9), while *adam* 'man' should be definite/specific in (9), it could only be interpreted as indefinite/non-specific in (9b). It follows, then, that an indefinite/non-specific subject must occur in the immediately pre-verbal position whereas a definite/specific subject does not have to, as we have seen in the case of objects in (2). The clear difference between subjects and objects is their case-marking property: subjects are always morphologically unmarked[4] while definite/specific objects are case-marked.[5] Based on these observations, we can posit, at least, that a definite/specific argument occurs syntactically in a different position than an indefinite argument. Now, the crucial question is where exactly those arguments appear in syntax. In what follows, we devote some space to a review of the word order facts and syntactic constructions of transitives, unergatives and unaccusatives, which are observed in the literature, and then move on to the structures in question.

[3] To express "A man ran quickly" in Turkish, one possibility is to use an existential sentence such as "There was a man, and (he) ran quickly."
[4] Precisely speaking, this applies only to subjects in *root* clauses. Definite/specific subjects in embedded clauses are marked with overt genitive case, which patterns with definite/specific objects.
[5] However, when an accusative object is possessive-marked, it *can be* interpreted as non-specific. This will be presented in Section 2.2.

2.2 Transitives

In a transitive sentence like (10), the external argument (subject) receives the specific interpretation. A bare internal object is always non-specific while an accusative-marked object is specific, as shown in (10):

(10) a. Adam kitap oku-du.
man book read-PAST
'The/ ??/*A man read a book.'

b. Adam kitab-ı oku-du.
man book-ACC read-PAST
'The/ *A man read the book.

As in (10a) and (10b), on this surface word order, it is not possible for the subject *adam* 'man' to receive a non-specific interpretation.[6]

In order for the subject *adam* 'man' to be non-specific, one of the possibilities[7] would be a sentence like (11):

(11) kitab-ı adam oku-du.
book-ACC man read-PAST
'A/The man read the book.'

As shown in (11), when the accusative-marked object is scrambled to the sentence-initial position, the subject *adam* 'man' can get the non-specific interpretation.[8] This is related to the domain of (non-)presuppositionality in Turkish. In Turkish, the immediately pre-verbal position is assumed to be a position where a 'non-presuppositional' (or focused)[9] nominal appears (cf. Erguvanlı 1984). In this respect, it is not surprising to see that the non-specific subject *adam*

[6] The ungrammaticality of a sentence like (10a) can be related to some constraints on the information structure as well as the syntactic requirement. I will discuss this structure once again in Chapter 4.
[7] Another possibility is to use an existential sentence such as "There was a man; and (he) read the book." (See fn. 3 for unergatives.)
[8] The non-specific interpretation here is not obligatory. As indicated in the English translation, the specific interpretation of *adam* 'man' is also available; however, the indefinite/non-specific reading is more salient in (11). The difference between the definite/specific interpretation and the indefinite/non-specific one can be shown by prosodic phrasing. This will be discussed in Chapter 4.
[9] It has traditionally been assumed that 'new' information appears in a neutral focus position under the topic – focus construction (cf. Erguvanlı 1984).

'man' in (10) occurs in a pre-verbal position; thus, the accusative-marked object *kitab-ı* 'book-ACC' must be scrambled, as shown in (11).

Kelepir (2001) provides a refined analysis as to (non-)presuppositionality in Turkish and its interpretation, based on the data from embedded sentences such as if-clauses. According to Kelepir (2001), a Turkish bare noun phrase with an indefinite/non-specific interpretation is said to be 'non-presuppositional' (cf. Diesing 1992) since it does not have to be introduced by prior discourse where the existence of an entity is asserted. In contrast, definite/specific noun phrases are 'presuppositional' since the speaker 'presupposes' the existence of a set of individuals/entities (e.g. Aygen-Tosun 1999) – that is, presuppositionality is associated with "what the speaker has in mind", as Kelepir (2001) indicates. As we saw in 2.1.1 above, a case-marked object is definite/specific in Turkish, which means, in Kelepir's (2001) definition, that it is presuppositional. For this reason, definites, proper names, demonstratives and pronouns are always accusative-marked in Turkish when they occur as direct objects because those nominals are presuppositional.

Now, the question to be addressed is where in syntax these presuppositional and non-presuppositional nominals are located. In Diesing's (1992) Mapping Hypothesis, it has been shown that non-presuppositional nominals are within VP while presuppositional nominals are outside of VP; this also applies to Turkish, as many researchers have already pointed out (e.g. Kennelly 1994; Zidani-Eroğlu 1997; Kelepir 2001, to name a few). When a definite/specific object (i.e. a presuppositional object) is scrambled away from a pre-verbal position, a subject can be in the pre-verbal position (within the domain of a non-presuppositional interpretation) and can be interpreted as non-specific (i.e. non-presuppositional). This is illustrated in (12):

(12) [kitab-ı$_i$ [$_{v/VP}$ adam t_i oku-du.]] (=(11))

book-ACC man read-PAST
'A/The man read the book.'

The example (12) shows that moving the accusative-marked object out of VP is the strategy for the presuppositional (or specific) noun phrase to escape from the non-presuppositional, focus domain (Ketrez 2005). However, we still need to identify the syntactic position of the external argument *adam* 'man' in (12). The subject of an unergative as an external argument has been claimed to be generated in a VP-external position (e.g. Chomsky 1995; Kratzer 1996; Kelepir 2001 for Turkish). Considering this, it is not likely that the non-specific *adam* 'man' in (12) originates in VP. Following the standardly accepted view and Kelepir's (2001) arguments for Turkish, I assume that external arguments are born in Spec*v*P; therefore, the non-specific *adam* 'man' in (12) is in its base-position, Spec*v*P. Then, we can tentatively claim that the edge of *v*P corresponds to the boundary of the non-presuppositional domain, as illustrated in (13):

(13) [$_{XP}$ DP-ACC [$_{vP}$ NP-SUBJECT (non-specific) [VP ….]]] (=(12) is amended.)

Presuppositional ← → Non-presuppositional

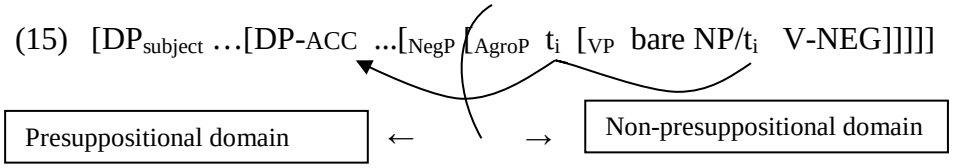
Based on the result presented in (13), if the specific object must escape from the domain of the non-presuppositional interpretation, it turns out that a case-marked specific object cannot occur in a pre-verbal position. Then, the grammaticality of (14) below needs to be explained since the accusative-marked *kitab-ı* 'book-ACC' apparently occurs in immediately pre-verbal position:

(14) Adam kitab-ı oku-du. (=(10b))
man book-ACC read-PAST
'The/ *A man read the book.

The example (14) is perfectly grammatical, and both the subject and the object get a definite/specific interpretation. The accusative-marked *kitab-ı* 'book-ACC' must be

definite/specific and is assumed to be moved from its base-position in VP. Ketrez (2005) claims that an accusative-marked object in a sentence like (14) is still scrambled away from the non-presuppositional field to the presuppositional domain even though it seemingly occurs immediately pre-verbally:

(15) [$DP_{subject}$ …[DP-ACC ...[$_{NegP}$ [$_{AgroP}$ t_i [$_{VP}$ bare NP/t_i V-NEG]]]]]



(modified from Ketrez 2005)

Support for this claim comes from the scope of negation. Examples are shown in (16):

(16) a. Ali bir elma-yı ye-me-di
Ali an apple-ACC eat-NEG-PAST
'Ali did not eat a particular apple.' *an apple*-ACC >NEG; *NEG> *an apple*-ACC

b. Ali bir elma ye-me-di
Ali an apple eat-NEG-PAST
'Ali did not eat an apple.' NEG> *an apple*-ACC; **an apple*-ACC >NEG

(Ketrez 2005)

In (16a), the accusative-marked object takes wide scope over negation. That is, the only available interpretation in (16a) is that 'there is an apple that Ali didn't eat' (one of the apples was not eaten). In contrast, in (16b), when the internal argument is a non-case marked noun, only the narrow scope interpretation is available; that is, the example (16b) is interpreted as 'it is not the case that Ali ate an apple' (no apples were eaten).

Another point made by Ketrez (2005) is that there is a case in which the accusative-marked object is not specific. When the possessive morpheme appears immediately before the accusative marker, the DP *can be* non-specific, as given in (17a):

(17) a. Bir hata-m-ı bul-ur-sa-n git-me-n-e izin ver-eceğ-im.
one mistake-**POSS**1s-ACC find-AOR-IF-2s go-INF-POSS-DAT permit-FUT-1s
'If you find a mistake of mine, I will let you go.'

b. Bir hata-yı bul-ur-sa-n git-me-n-e izin ver-eceğ-im.
one mistake-ACC find-AOR-IF-2s go-INF-POSS-DAT permit-FUT-1s
'If you find a mistake, I will let you go.'

c. Bir hata bul-ur-sa-n git-me-n-e izin ver-eceğ-im.
one mistake find-AOR-IF-2s go-INF-POSS-DAT permit-FUT-1s
'If you find a mistake, I will let you go.' (Ketrez 2005)

According to Ketrez (2005), (16a) has two possible readings. It can be either specific or non-specific. On the other hand, in (16b), when the object is accusative-marked (with no possessive morpheme), only the specific reading is available. In (17c), when the non-case marked object occurs, only the non-specific reading is available. Ketrez concludes, following Kornfilt (2001), that whenever the possessive morphology appears on the object, the accusative case marker must be present, regardless of its interpretation. This seems to be a requirement for a formal reason, as opposed to a semantic reason, which is also claimed by Kornfilt (2001).

If this is the case, then the non-specific object marked both with possessive and accusative can potentially stay within the domain of non-presuppositional interpretation. As we saw in (16), the specific object with accusative marker takes wide scope over negation. The non-specific object marked with possessive and accusative markers, however, cannot take wide scope over negation. Consider (18), in which a negative polarity item (NPI) is a subject:

(18) a. Kimse bir arkadaş-ı-m-ı davet et-me-miş.
nobody a friend-**POSS**1s-ACC invite-NEG-PERF
'Nobody invited any friend of mine.'
(*A friend of mine such that nobody invited him/her.) (Kelepir 2001)

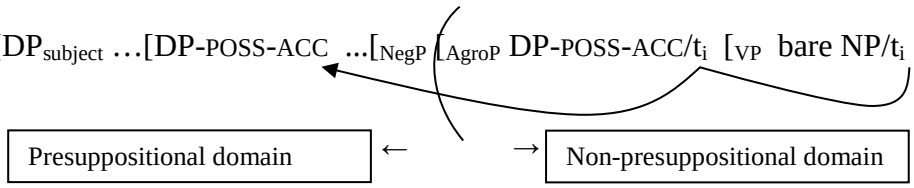
b. Kimse bir arkadaş-ı davet et-me-miş.
nobody a friend-ACC invite-NEG-PERF
'Nobody invited a friend.'
(✓$_{OK}$ A friend of mine such that nobody invited him/her.) (Ketrez 2005)

As in (18a), the accusative-marked object that bears the possessive morpheme cannot take wide scope over negation while in (18a) the accusative object without the possessive morpheme takes

wide scope over negation. Thus, it seems that the accusative object with possessive morphology can occur below negation.

Based on this, Ketrez (2005) proposes the following structure (19):

(19) [$DP_{subject}$ …[DP-POSS-ACC ...[$_{NegP}$ [$_{AgroP}$ DP-POSS-ACC/t_i [$_{VP}$ bare NP/t_i V-NEG]]]]]



(modified from Ketrez 2005)

As in (19), AgrOP is the locus of overt accusative-case checking. Thus, even though the accusative-marked object can be non-specific, it is moved from VP. It can stay under the scope of negation (i.e. within the non-presuppositional domain). As shown in (19), in addition to an accusative-case checking position (i.e.AgrOP), there is a position below the specific subject and above NegP, in which the specific object appears. Ketrez claims that the accusative-marked object with a specific interpretation moves to a position higher than NegP, due to discourse/focus-related re-shuffling, not due to feature-checking, but does not discuss any independent (syntactic) motivation for this movement. I suggest that the position immediately above NegP is TP, following the standard syntactic structure, and make two points: (*i*) the scrambled object with a specific interpretation in (19) is moved to SpecTP (to satisfy EPP on T) and (*ii*) when the scrambled object occupies SpecTP, the definite/specific subject appears above TP. Following the cartographic approach (e.g. Rizzi 1997; Cinque 1999), which shows the distinct, universal hierarchies of functional projections, I assume that a specific subject resides in a position even higher than SpecTP. Let us call it Topic Phrase (TopP), in which a topic element (or old information) can occur (cf. den Dikken 2005). In what follows, I will examine why this should be the case.

To see why a scrambled object can move into SpecTP while there is another candidate (i.e. a definite/specific subject) for moving into SpecTP to satisfy EPP on T, let us take a look at some phenomena of quantifier scope in Turkish. Consider (20):

(20) a. Üç kişi herkes-i suçla-dı.
three people.NOM everyone-ACC accuse-PAST.3SG
'Three people accused everyone.'
3>every; *every> 3
(Collective reading: There are three people such that they accused everyone.)

b. Herkes-i üç kişi suçla-dı.
everyone-ACC three people. NOM accuse-PAST.3SG
'Three people accused everyone.'
every > 3 (Distributed reading: 'Everyone was accused by any three people.')
3 > every (Collective reading: 'There are three people such that they accused everyone.')

(Temürcü: 2005: 137, as cited in İşsever 2008)

It is generally accepted that Quantifier Phrases (QPs) take scope at their surface syntactic positions in Turkish (e.g. Aygen 1999). As shown in (20a), only the surface (i.e. collective ('3>every')) reading is possible. On the other hand, certain structures show scope ambiguity, as in (20b). In (20b), when the case-marked object QP is scrambled to sentence-initial position, both the distributive and collective readings are available.

Let us first consider (20a). Since the inverse scope reading is not possible in this sentence, LF operations such as Quantifier Raising (QR) or Quantifier Lowering (cf. May 1977) (or scope reconstruction (e.g Fox 1999, 2000)) (at least, optional LF movements) do not apply here. In (20a), the subject *üç kişi* 'three people. NOM' must be interpreted as specific, not as any, random three people. In contrast, in (20b), the pre-verbal subject *üç kişi* 'three people. NOM' is non-specific, and thus it occurs below *v*P. Given that a sentence-initial DP normally serves as a topic of the sentence in Turkish, it is reasonable to say that the specific subject *üç kişi* 'three people-NOM' in (20a) is the topic of this sentence. As indicated above, I argue that the specific/presuppositional subject *üç kişi* 'three people. NOM' in (20a) occurs in SpecTopP (i.e. a

position higher than TP). The accusative-marked quantifier *herkes-i* 'everyone-ACC' occurs in SpecTP (satisfying EPP on T).[10] The structure for (20a) is illustrated in (21):

(21) [$_{TopP}$ üç kişi [$_{TP}$ herkes-yi [$_{vP}$ [$_{VP}$ suçla-dı]] (=(20a))
three people everyone-ACC accuse-PAST.3SG
'Three people accused everyone.'
3>every; *every> 3

The example (21) implies that when an explicit topic appears in SpecTopP, QR does not take place. Ionin (2002) proposes that a topical element cannot undergo scope reconstruction at LF, discussing frozen scope effects in Russian:

(22) *Russian*
a. odin mal'chik videl kazhduju devochku
one boy-NOM saw every girl-ACC
'One boy saw every girl' (one> every; *every>one)

b. odnu devochhu videl kazhdyj mal'chik
one girl-ACC saw every boy-NOM
'One girl, every boy saw.' (one> every; *every> one)

(23) a. kazhdyj mal'chik videl odnu devochku
every boy-NOM saw one girl-ACC
'Every boy saw one girl' (every> one; ?one>every)

b. kazhduju devochku videl odin mal'chik
every girl-ACC saw one boy-NOM
'Every girl, one boy saw' (every> one; ?one>every)

In Russian, it is assumed that a topic is the leftmost DP (either the leftmost subject or the sentence-initial, scrambled object) (if the sentence has a topic at all) and post-verbal DPs are non-specific. Topicalization is claimed to be a discourse-driven overt movement (e.g. King 1995). Ionin (2002) assumes that leftmost subjects and objects shown in (22) and (23) function as a topic, and the topic scopes over the post-verbal QP. According to Ionin, the surface reading is the only possibility in (22) and (23), due to the nature of topicalization. Since topicalization is

[10] At this point, it might not be clear exactly where the accusative-marked QP *herkes-i* 'everyone' occurs (SpecTP or Spec*v*P); however, the prosodic pattern between (21a) and (21b) is different. That is, prosodic phrasing suggests that the accusative-marked QP *herkes-i* 'everyone' is outside of *v*P in (21a) while the subject *üç kisi* 'three people' in (21b) is inside of *v*P. Prosody will be discussed in Chapter 4.

a function that influences the interpretation by shifting the word order (under the topic-comment/information structure), it should be distinguished from other types of movement such as *wh*- and EPP-driven movements motivated by formal syntactic operations. Ionin (2002) further points out that if the topicalized DP were vacuously moved to SpecTopP and reconstructed to its base-position, it would be interpreted as narrow scope and loses its function as a discourse-prominent topic. Under this view, a topicalized DP does not reconstruct and the movement of DP to SpecTopP is *not* vacuous. As Ionin claims, when QP is *overtly* raised to a designated position (such as a topic position), covert QR or reconstruction is not necessary (since such a movement is superfluous); thus, optional QR is prohibited in Russian. The generalization posited by Ionin (2002) is given in (24):

(24) Availability of overt movement (of QP to SpecTopP) restricts covert movement (of QP).

(Ionin 2002)

The generalization (24) can apply to Turkish in certain contexts, which will be discussed shortly. A 'designated' position can be associated with a QP hierarchy proposed in Beghelli and Stowell (1997). Positing a hierarchical structure for QPs, Beghelli and Stowell (1997) claim that QPs move to a designated specifier position (to check their features) (cf. see also Kiss 1994, 1998; Szabolcsi 1997):

(25) [$_{\text{RefP}}$ *Group-DenotingQPs 'some, several, three…' (specific/definite DPs)* [$_{\text{CP}}$ *Wh-items* [$_{\text{AgrSP}}$ *CountingQPs 'few, at most six…'* [$_{\text{DistrP}}$ *DistributiveQPs 'every, each…'*[$_{\text{ShareP}}$ *Ground-DenotingQPs* [$_{\text{NegP}}$ *NegQPs 'nobody…'* [$_{\text{AgrOP}}$ *CountingQPs* [VP…]]]]]]]]

(adopted from Beghelli & Stowell 1997)

I follow the relative order of this QP hierarchy[11] which can generally apply cross-linguistically.[12] In the structure (25), a material (e.g. Group Denoting Phrase or specifics/definites) at Referential Phrase (RefP) scopes over, for example, Distributive Phrase (DistrP) (e.g. *every*) and Share Phrase (e.g. *some*). Here, I assume that RefP in (25) corresponds to TopP I have posited. An overt QP appearing in SpecTopP (interpreted as definite/specific in Turkish) takes wide scope over a QP appearing lower than TopP, and thus gives rise to frozen scope effects. Now, languages show some variations as to how QP is placed in a particular (specifier) position. In a language like English, for instance, covert QR and reconstruction are necessary since overt quantifier movement is not available. In contrast, in a language like Hungarian (e.g. Kiss 1991; Szabolcsi 1997), quantifiers move overtly and thus covert movement is not available. Other languages such as Japanese (e.g. Miyagawa 1997) would show a combination of both overt and covert quantifier movements. Turkish has shown frozen scope in some cases, but not in every context; that is, it seems that Turkish allows both overt and covert movement. Let us turn back to the Turkish data:

(26) a. [$_{TopP}$ Üç kişi [$_{TP}$ herkes-i [$_{VP}$ suçla-dı.]]] (=(20))
three people.NOM everyone-ACC accuse-PAST.3SG
'Three people accused everyone.'
3>every; *every> 3

b. [$_{TP}$ Herkes-i [$_{vP}$ üç kişi [$_{VP}$ suçla-dı.]]]]
everyone-ACC three people. NOM accuse-PAST.3SG
'Three people accused everyone.'
every > 3; 3 > every

I have postulated that once the subject *üç kişi* 'three people. NOM' overtly moves into SpecTopP (to satisfy topic requirements such as [+top] features) it takes wide scope over QP in a position

[11] I am not going to use the same syntactic labels illustrated in (25). I do not have insights as to the existence of functional projections between AgrSP and AgrOP in (25). So instead of positing additional functional projections, I use and follow the traditional syntactic labels such as TP, *v*P.

[12] This QP hierarchy can also apply to Turkish though Aygen (1999), for instance, points out that in Turkish the order of DistrP and ShareP in (24) is not as rigid as the structure (25) (see Aygen 1999 for a detailed analysis for the application of this hierarchy to Turkish).

lower than SpecTopP and covert movement of a lower QP does not take place, due to economy considerations; thus, (26a) exhibits frozen scope. The result (26a) is in line with the QP hierarchy shown in (25): Group-Denoting QPs in SpecTopP (or in RefP) take wide(st) scope. Compared to the Russian examples given in (22) and (23) in which only the surface reading is available, the Turkish example in (26) is not as rigid as Russian (at least, based on (22) and (23)) since the inverse reading is available in the Turkish example (26b) while in Russian, a similar sentence rejects the inverse reading. Thus, the inverse scope reading is derived via the application of optional QR or reconstruction in Turkish. I assume that the position of the subject in (26a) and of the scrambled object in (26b) are different. In (26a), the leftmost subject appears in SpecTopP, and must take wide scope. In (26b), in contrast, the scrambled object *herkes-i* 'everyone-ACC' occurs in SpecTP, not in SpecTopP.[13] In this case, QR takes place. Then, the question is why the scrambled object *herkes-i* 'everyone-ACC' in (26b) does not move to SpecTopP from SpecTP. It could be argued that this is related to the nature of the pronominal (or bare) quantifier *herkes* 'everyone' (or some property of the quantifier *her* 'every'). For example, Rizzi (1997) argues that bare quantifiers such as *everyone* and *nobody* are typically not topicalizable. This would be true for Turkish. Movement of DP to SpecTopP (or topicalization) is not required (or not even allowed) for a certain type of specific DPs (or QPs such as bare quantifiers). On this view, definite/specific DPs do not necessarily have to fill SpecTopP; rather, I assume that when two specific DPs (i.e. a specific subject and a specific object) occur in a sentence, the leftmost DP must be a topic and occupy SpecTopP since it is more discourse-prominent (or more definite/specific than the other). Thus, definite/specific DPs do not always need to be a topic. Movement of DP to SpecTP is A-movement for EPP reasons and DP with a specific

[13] As I will show in Chapter 4, there is a prosodic difference supporting the postulated structure in (26).

interpretation can stay there, but DP can further move (or A-bar move) to SpecTopP to satisfy some topic requirement.

Let us now see the example (27):

(27) a. ?Herkes üç kişi-yi suçla-dı.
everyone.NOM three people-ACC accuse-PAST.3SG
'Everyone accused three people.'
every > 3 (Distributed reading: 'Everyone accused any three people.')
3 > every (Collective reading: 'There are three people such that everyone accused them.')

b. Üç kişi-yi herkes suçla-dı.
three people-ACC everyone.NOM accuse-PAST.3SG
'Everyone accused three people.'
3> every; *every>3
(Collective reading: 'There are three people such that everyone accused them.')
(modified from İşsever 2008)

For convenience, the example (26) is repeated as (28):

(28) a. [$_{TopP}$ Üç kişi [$_{TP}$ herkes-i [$_{VP}$ suçla-dı.]]] (=(26))
three people.NOM everyone-ACC accuse-PAST.3SG
'Three people accused everyone.' (3>every; *every> 3)

b. [$_{TP}$ Herkes-i [$_{vP}$ üç kişi [$_{VP}$ suçla-dı.]]]]
everyone-ACC three people. NOM accuse-PAST.3SG
'Three people accused everyone.' (every > 3; 3 > every)

Compare (27) with (28). Unlike (28a), both the collective and the distributive readings are possible in (27a). Unlike (28b), only the collective ('3>every') reading (or the surface reading) is possible in (27b). İşsever (2008), following Temürcü (2005), speculates that in (27a) the case-marked object *üç kişi-yi* 'three people-ACC' undergoes QR though he does not provide an explicit discussion of the structure (27a, b). As I mentioned above, it can be assumed that the scopal ambiguity of (27a) is associated with the syntactic position of the pronominal quantifier *herkes* 'everyone.' The inverse scope reading is possible in (27a) since *herkes* 'everyone' is NOT in SpecTopP, but in SpecTP. On the other hand, in (27b), the scrambled object *üç kişi-yi* 'three people-ACC' is unambiguously specific/definite and the pre-verbal subject *herkes* 'everyone'

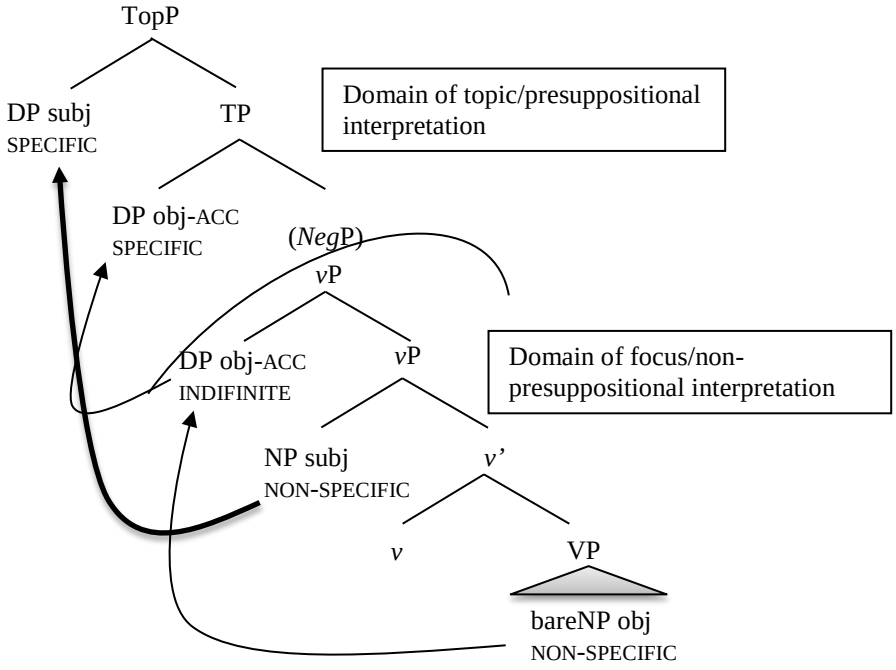
seems to remain in Spec*v*P.[14] The object *üç kişi-yi* 'three people-ACC' is in SpecTopP (moving through SpecTP to satisfy EPP on T), and only the surface reading is available in (27b). The example (27) is again compatible with Beghelli & Stowell's (1997) QP hierarchy (25) in which Group-denoting QPs in SpecTopP must take wide(st) scope over other scope-bearing elements in their clause.

Though I will discuss the syntactic structures I propose in Chapter 3 and 4, at this point, based on the discussion above, I summarize the transitive structure and the positions of nominals, as in (29) below:

(29) a. **Word Order I:** [$_{TopP}$ DP subject [$_{TP}$ DP object-ACC [$_{(NEGP)}$ [$_{vP}$…[$_{VP}$ …]]]

Adam	kitab-ı	oku-du
man	book-ACC	read-PAST

'**The man** read the book. (*A man read the book.)



[14] One reason for this is that *herkes* 'everyone' is inside the scope of negation, as shown in (i):

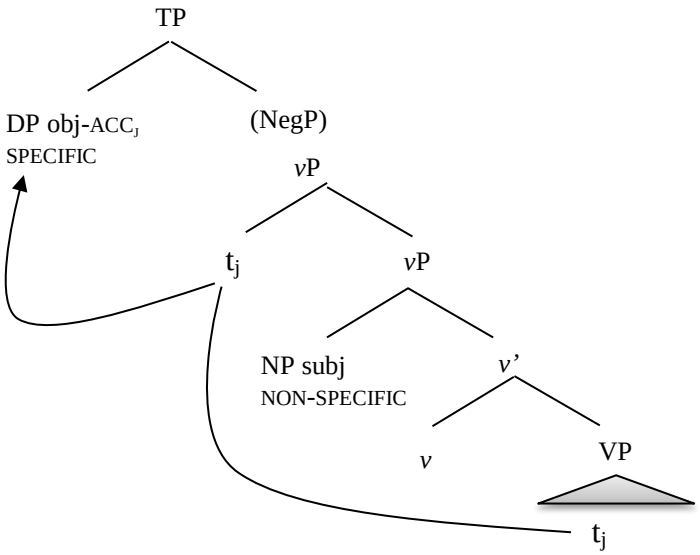
(i) O soru-yu [$_{NegP}$ [$_{vP}$ herkes (çabuk) yanıtla-ma-dı.
that question-ACC everyone.NOM (quickly) answer-NEG-PAST
'That question, all didn't answer quickly.' (not>every; *every>not) (İşsever 2008:6)

We have already seen that NegP is above *v*P, but below TP (e.g. İşsever 2008; Ketrez 2005). As shown in (i), a low adverb can occur immediately before the verb *yanıtla* 'answer' and *herkes* 'everyone' appears to the left of the low adverb *çabuk* 'quickly.' Since negation must take wide scope over *herkes* 'everyone,' I assume that *herkes* 'everyone' is under the scope of negation, and remains in Spec*v*P. A structure like (i) also comes from prosodic patterns, which will be shown in Chapter 4.

b. **Word Order III:** [$_{TopP}$ [$_{TP}$ DP object-ACC [$_{(NEGP)}$ [$_{vP}$ DP subject …[$_{VP}$ …]]]

kitab-ı adam oku-du.
book-ACC man read-PAST

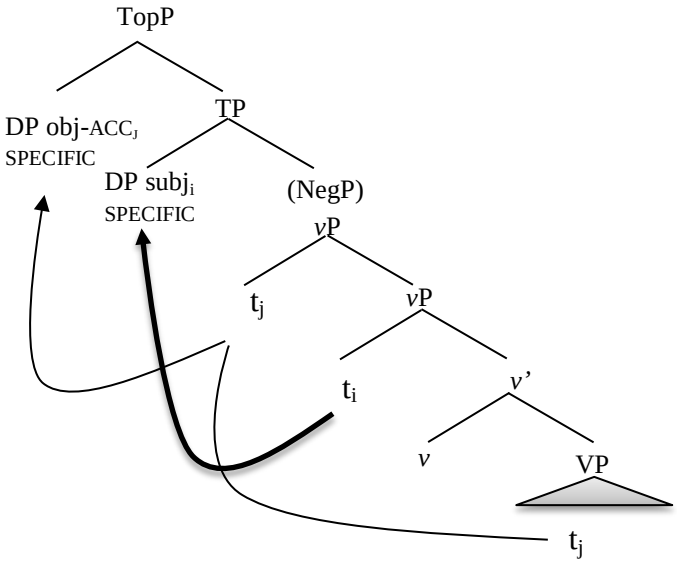
'**<u>A man</u>** read the book.'



c. **Word Order II:** [$_{TopP}$ DP object-ACC [$_{TP}$ DP subject [$_{(NEGP)}$ [$_{vP}$ …[$_{VP}$ …]]]

kitab-ı adam oku-du.
book-ACC man read-PAST

'**<u>The man</u>** read the book.



As I indicate in (29), I adopt *v*P in the sense of Chomsky (1995), instead of AgrOP. In the word order I (29a), a definite/specific subject occurs in SpecTopP, and a definite/specific object occurs

in SpecTP, adopting claims that specific DPs can satisfy EPP on T (Chomsky 1995; Cagri 2004 for Turkish).[15] In the word order II (29b), the non-specific reading of the subject *adam* 'man' is available. In such a case, the non-specific subject remains in Spec*v*P, and does not move further. In the word order III (29c), when a subject is definite/specific, it occurs in SpecTP for EPP reasons, as discussed above. As shown in (29c), the accusative-marked object can appear to the left of the specific subject. I assume that the definite/specific object in this case can further move to SpecTopP as a topic of the sentence. This discussion will again be touched upon in the next section 2.3 (on unergatives).

It should be noted that I assume that a definite subject and a definite object occur in different projections, not in, for example, multiple specifiers of TP or TopP. This is due to the assumption that phrase structure follows Antisymmetry (Kayne 1994), also supported by prosodic facts. I will come back to the issue of the syntactic positions of subjects and objects, providing prosodic evidence in Chapter 4.

2.3 Unergatives

Subjects of unergatives are normally interpreted as definite/specific in Turkish (Özçelik & Nagai 2011),[16] as illustrated in (30), (31) and (32):

(30) Adam gül-du.
man laugh-PAST
'The man/ *A man laughed.'

(31) Çocuk uyu-du.
child sleep-PAST
'The child/ *A child slept.'

[15] It can be argued that a PF-visible D head (e.g. an overt case marker) satisfies EPP on T (Landau 2007). It should be noted, however, that nominative subjects are not morphologically overt. Thus, it would be sufficient to say that EPP requirement on T is satisfied by D features in Turkish.

[16] This is supported by prosodic evidence (see Özçelik & Nagai 2011). An indefinite interpretation cannot obtain in a single sentence. To express an indefinite subject, one would have to say something like: "I saw a man. (And he) laughed." Or "I saw a man who was laughing."

(32) Adam koş-tu.
man run-PAST
'The man/ *A man ran.'

As in (33) below, an adverb can intervene between a specific subject and a verb; this means that the specific subject is not adjacent to the verb. Like other definite/specific arguments, the subject of an unergative is presumably in a position higher than VP:

(33) Adam cabuk koş-tu.
man quickly run-past
'The man quickly ran.'

As discussed earlier, it has standardly been assumed that subjects of unergative verbs as well as transitive verbs have to be external, introduced by a functional head such as *v*[17] or Voice (e.g. Chomsky 1995; Kratzer 1996). We have seen in 2.2 that a definite/specific subject cannot stay in its base-position (Spec*v*P) and that a definite/specific subject moves to SpecTP for EPP reasons. Focusing on embedded contexts, Cagri (2004) examines the EPP on T in Turkish based on relative clause structures, and argues that T does have an EPP feature which must be satisfied by DP. Assuming that non-specifics are NPs and specifics are DPs, and that EPP can be satisfied only by a D feature (Chomsky 1995), Cagri claims that specific DPs can satisfy EPP while non-specific NPs cannot. As a consequence, only DPs (which have specific interpretations) are raised to SpecTP. Investigating a relative clause with an unergative verb, Cagri (2004) further shows evidence that the subject of an unergative must move to SpecTP from its base-position. Let us take a look at how Cargi argues this point. Before discussing unergative constructions, let us start by looking at the relatives (34) with an unaccusative verb in order to see how Turkish relatives are constructed:

(34) *RC with an unaccusative*:
a. [gemi yanaş-an] liman
ship sidle-*AN* harbor

[17] This can be *v** in Chomsky's (2001) sense (i.e. a (strong) phase-head).

'the harbor that a ship is sliding up to'

b. [gemi-nin yanaş-tığ-ı] liman
ship-GEN sidle-*DIK*-3SG harbor
'the harbor that the ship is sliding up to' (modified from Cagri 2005)

In Turkish, two different markers are used to mark relative clauses (RCs): the *–AN* marker (see (34a)), and the *–DIK* marker (see (34b)).[18] The *–AN* form is commonly used in so-called subject relatives in which the gap site is a subject though it can also appear in other structures (as in (34a)). The *–DIK* form is generally used in subordination structures and in so-called non-subject relatives in which the gap site is not a subject.[19] Now, as shown in (34a), when the *–AN* form appears, the subject *gemi* 'ship' in (34a) is non-specific. As in (34b), when the *–DIK* form appears, *gemi* 'ship' is specific (with agreement morphology on the verb). Cagri proposes the following syntactic derivations for (34a) and (34b):

(35) a. [gemi yanaş-an] liman (=(34a)) (*embedded subject = non-specific*)
ship sidle-*AN* harbor
'the harbor that a ship is sliding up to'

b. [$_{CP}$ harbor …[$_{C'}$ …[$_{TP}$ t [$_{T'}$ [$_{v/VP}$ t [$_{NP}$ ship] V-AN]]]]
[+wh]
Step 2 Step 1

(36) a. [gemi-nin yanaş-tığ-ı] liman (=(34b)) (*embedded subject = specific*)
ship-GEN sidle-*DIK*-3SG harbor
'the harbor that the ship is sliding up to'

b. [$_{CP}$ harbor$_i$ …[$_{C'}$ …[$_{TP}$ ship-GEN$_j$ [$_{T'}$ [$_{v/VP}$ t_i t_j V-DIK]]]]
[+wh]
Step 2 Step 1

In the *–AN* construction (35), the non-specific subject *ship* does not raise, and the EPP of T is satisfied by the head noun phrase [+wh] *harbor*.[20] Once it satisfies EPP on T, it further moves up to SpecCP to satisfy EPP on C. In the *–DIK* construction (36), the specific subject *ship* first

[18] These markers are subject to undergo vowel harmony and consonantal assimilation; thus, they appear as various forms due to phonological processes (see Kornfilt 1997; Cagri 2004).
[19] The *–DIK* form is assumed to be the elsewhere case (e.g. Underhill 1972; Hankamer & Knecht 1976; Kornfilt 1997).
[20] Cagri assumes the raising analysis for relative clauses (e.g. Vergnaud 1974; Kayne 1994).

moves to SpecTP to satisfy EPP on T (Step 1). Then, the DP[+wh] *harbor* moves to SpecCP to satisfy EPP on C (Step 2). Cagri's generalization is that when the *–AN* form appears the head of the RC must move to SpecTP and then to SpecCP, satisfying EPP features of both T and C (as in (36)). The summary of Cagri's proposal for RCs is given in (37):

(37) Cagri's (2004, 2005) generalization for RCs:

(i) *–AN* RCs: The relative head must move to SpecTP, and then land SpecCP.
(ii) *–DIK* RCs: The relative head undergoes long distance A-bar movement to SpecCP; SpecTP must be occupied by a material that satisfies EPP on T.

Let us now see the relatives with unergative verbs:

(38) *RC with an unergative*:
a. *[adam koş-an] saha
man run-*AN* track
Intended: 'the track where men/a man run(s)'

b. [adam*(-in) koş-tuğ-u] saha
man-GEN run-*DIK* track
'the track where men/a man run(s)'

As can be seen in (38b), since the subject of unergatives is specific/definite, the subject must be genitive-marked and the *–DIK* form is required. The *–AN* construction in which a non-specific subject is required is not allowed in (38a). See the relevant structures for (38):

(39) a. *[$_{CP}$ track$_i$ …[$_{C'}$ …[$_{TP}$ man$_j$ [$_{T'[EPP]}$ [$_{v/VP}$ t_i t_j run-AN]]]] (=(38a))

"track" cannot move through SpecTP since "man" is in the way.

b. [$_{CP}$ track …[$_{C'}$ …[$_{TP}$ man-GEN [$_{T'[EPP]}$ [$_{v/VP}$ t_i t_j run-DIK]]]] (=(38b))

Recall (37*i*): in the *–AN* construction, the relative head *must* move to SpecTP and then to SpecCP; *saha* 'track' cannot move directly to SpecCP.[21] Cagri argues that the structure (39a) is ruled out since the head of the RC *saha* 'track' cannot touch down on SpecTP but must move

[21] According to Cagri (2009, p. 371), the *–AN* form is triggered when a DP is relativized from SpecTP, irrespective of its theta role, the argument structure or class of the verb.

directly to SpecCP, crossing SpecTP in which the specific DP already occupies. This would create the intervention effect which causes the ungrammaticality of (39a). Furthermore, the *–AN* construction requires a non-specific subject. Thus, even though SpecTP was available for the head relative to move through, that the sentence is still ungrammatical shows that the subject *adam* 'man' cannot be caseless or non-specific in (39a). In contrast, (39b) is well-formed: the subject *adam* 'man' is genitive-marked, and the relative head *saha* 'track' undergoes movement to SpecCP. According to (37*ii*), in the *–DIK* construction, a DP subject must satisfy EPP on T, and then the head of RC can undergo a long distance A-bar movement to SpecCP. In this case, the subject *adam* 'man' must be specific and case-marked, as shown in (39b). When an embedded subject is specific/definite, it must be genitive-case marked and move into SpecTP to satisfy EPP on T. To see this, consider the RCs that involve transitives:

(40) a. *[peynir-i fare yi-yen] bakkal
[cheese-ACC mouse eat-*AN*] shop
'the shop where mice eat the cheese'

b. [fare-nin peynir-i ye-diğ-i] bakkal
[cheese-GEN mouse-ACC eat-*DIK*-3s] shop
'the shop where mice eat the cheese'

The derivation for (40) is given in (41):

(41) a. *[$_{CP}$ shop [$_{C'}$ [$_{TP}$ cheese-ACC [$_{T'[EPP]}$ [$_{vP}$ t_i mouse t-$_{shop}$ eat-AN]]]] (=(40a))

Minimality Violation

b. [$_{CP}$ shop [$_{C'}$ [$_{TP}$ mouse-GEN [$_{T'[EPP]}$ [$_{vP}$ cheese-ACC t_j t-$_{shop}$ eat-DIK]]]] (=(40b))

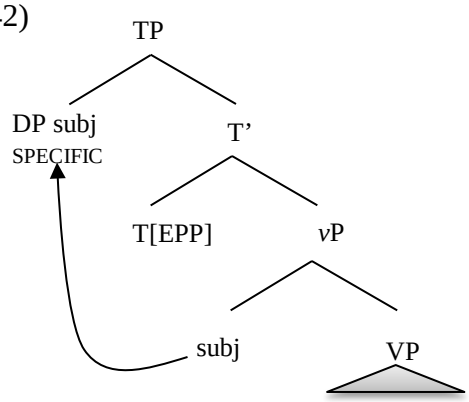
The example (40a)/(41a) is ungrammatical. Cagri (2009) points out that this is due to a Minimality violation, and that the case-marked object cannot be moved into another case position but does not discuss the ungrammaticality of (41a) in detail. It is possible to claim here that Minimality effects are observed in (41a) because SpecTP is filled by the accusative-marked

object. This means that EPP on T can be satisfied by the accusative-marked object, as discussed earlier. Since SpecTP is occupied, the relative head cannot touch down on SpecTP; hence, (41a) is ungrammatical. On the other hand, the example (40b) corresponding to (41b) is grammatical. In this case, it is expected that the relative head moves directly to SpecCP (if EPP on T is satisfied by DP). Thus, specific subjects of embedded clauses appear in SpecTP. Based on this, I assume that in root clauses, too, specific subjects occur in SpecTP.

The fact that the subject of an unergative is always definite/specific reflects its syntactic position – that is, the definite/specific DPs cannot remain in its base-position. This will be revealed even more clearly once we get to the prosodic structure of unergatives in Chapter 4.

In sum, the structure of an unergative can be illustrated as in (42):

(42)



2.4 Unaccusatives

An unaccusative sentence like (43) (repeated from (5) above) can have two possible interpretations, where the subject *adam* 'man' could be either definite/specific or indefinite/non-specific:

(43) Adam gel-di
man arrive-PAST
'The/A man arrived.'

As mentioned earlier, it has been assumed in the literature that a non-specific noun does not move out of its base position in Turkish. Kornfilt (1984, 1997, 2003) claims that bare indefinite/non-specific nouns are 'fixed' in their pre-verbal position. Furthermore, Kornfilt (1984), following Perlmutter (1978), assumes that the subject of an unaccusative verb is base-generated in the same position as a direct object of a transitive verb – i.e. a sister of V. Thus, in (47a), the indefinite *adam* 'man' stays *in situ* in the complement position of the verb whereas in (47b), the definite *adam* 'man' moves from its base position to the canonical, sentence-initial position (i.e. SpecTP in the current term):

(44) a. [$_{TP}$ Dün … [$_{VP}$ **adam** gel-di]]
yesterday man arrive-PAST
'A man arrived yesterday.'

b. [$_{TP}$ **Adam**$_i$ dün … [$_{VP}$ t$_i$ gel-di]
man yesterday arrive-PAST
'The man/*A man arrived yesterday.'

Under the traditional view that the subject of an accusative verb is an internal argument of the verb and occurs in the complement position (Perlmutter 1978, 1989; Burzio 1986), it can naturally be supposed that such a subject, in Turkish, is also just like the object of a transitive verb underlyingly. Let us now focus on the VP in (48):

(45) a. [**$_{VP}$** Adam gel-di]
man arrive- PAST
'A man arrived.'

b. [Adam [**$_{VP}$** kitap oku-du]]
man book read-PAST
'The/A man read a book.'

Here, in Kornfit's sense, both the position of *adam* 'man' in (45a) and that of *kitap* 'book' in (45b) should be the same complement position of the verb. Now, let us consider the behavior of the low adverb *çabuk* 'quickly' in (46)[22]:

(46) a. *[Adam [*çabuk* [$_{vP}$ kitab-ı [$_{VP}$ oku-du]]]
man quickly book read-PAST

[22] I will provide a more detailed discussion on the syntactic position of adverbs later in the current and the following chapters.

'The man read the book quickly.'

b. [Adam [*çabuk* [$_{VP}$ kitap oku-du]]]
man quickly book read-PAST
'The man read a book quickly.'

As in (46a), the definite object *kitab-ı* 'book' is assumed to be scrambled away from its base position, and *çabuk* 'quickly' cannot appear immediately before the definite object. Given that *v* licenses a structural accusative case feature and that Spec*v*P is a canonical accusative case checking position[23] (Chomsky 1995), I assume that the overtly shifted object *kitab-ı* 'book- ACC' appears in Spec*v*P. Now, (46a) is ungrammatical when *çabuk* 'quickly' occurs to the left of the shifted object, which accordingly indicates that *çabuk* 'quickly' occurs somewhere lower than *v*P. Assuming that the low adverb *çabuk* 'quickly' occurs at the edge of VP, let us take a look at an unaccusative construction, given in (47):

(47) a. [Adam [**$_{VP}$** *çabuk* gel-di]
man quickly arrive-PAST
'The man arrived quickly.'

b. *[*Çabuk* [**$_{VP}$** adam gel-di]]
quickly man arrive-PAST
'A man arrived quickly.'

(48) a. [$_{FP}$ Adam [$_{F'}$[$_{VP}$ geldi]]]
man arrive-PAST
'The man arrived.'

b. [$_{VP}$ Adam gel-di]
man arrive-PAST
'A man arrived'

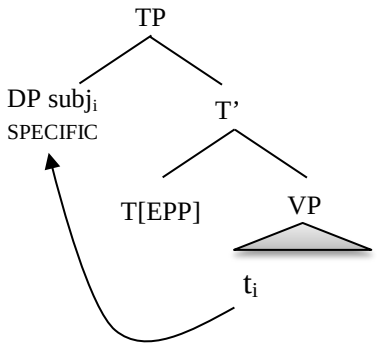
If the syntactic structure of the VP in (47b) is assumed to be exactly the same as of the VP in (46b), then the ungrammaticality of (47b), or why (47b) does not show the same pattern as (46b) cannot easily be captured. It can still be assumed that both the position of the indefinite *adam* 'man' in the unaccusative (47a) and of the indefinite *kitap* 'book' in the transitive (46b) are in the same position within VP, but that position does not necessarily have to be the complement position of V. The internal argument of V can occur in the specifier position of VP (cf. Larson 1988). This is the possibility I am going to pursue.

[23] As another possibility, this overt movement could be triggered by EPP on *v* (e.g. Chomsky 2000, 2001).

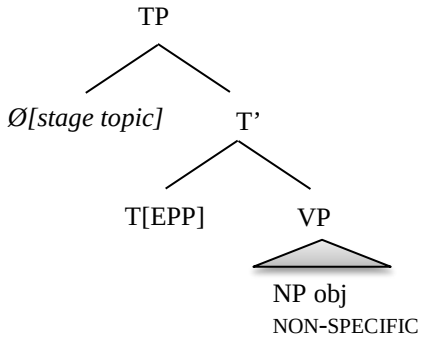
It should be noted that in the sentence (47a) *adam* 'man' *must* receive the definite/specific interpretation and that in the sentence (48b) the indefinite bare *adam* 'man' does occur in a sentence with an unaccusative verb (with no low adverb modification). Since *çabuk* 'quickly' can appear in an unaccusative construction like (47a), which is grammatical, the ungrammaticality of (47b) is probably not due to some sort of unusual properties of a low adverb or an unaccusative verb. The crucial question, then, is why the low adverb can appear to the left of an indefinite object in (46b) but not an indefinite subject in (47b). In fact, the meaning "a man quickly arrived" in (47b) can, by no means, be expressed in a single sentence in Turkish, for the order in (47b) is ungrammatical, and under the (only other possible) order in (47a), the subject has to be definite.[24] (Once again, notice that the *indefinite/non-specific* interpretation of *adam* 'man' *is available*, as in (48b), when no low adverbs occur in a sentence.) I will account for the (un)grammaticality of (46) and (47) and discuss this in detail in Chapters 3 and 4.

To recap, there are *two* interpretations in unaccusatives, as shown above. Based on what has been discussed in the previous subsections, assuming that a definite/specific nominal must move out of VP to SpecTP while an indefinite/non-specific nominal remains within VP. The structures of an unaccusative can be illustrated in (49):

(49) a. Subject = Definite/Specific



b. Subject = Indefinite/Non-specific



[24] The only way to express such a meaning in Turkish would be to construct two sentences such as "I saw a man. He arrived quickly." This way, one can both refer to an indefinite 'man' and can also express the fact that he arrived quickly, for, in the second sentence, 'man' would now be definite.

In unaccusatives, I assume that *v*P does not project since there is no external argument for the VP in this construction. Therefore, an overt accusative-case needs not to be checked. TP is directly merged to VP, as in (49).

As Cagri (2004) claims, I assume that assignment of an EPP feature on T is *obligatory*; thus, EPP on T *must be* satisfied. Even though an indefinite/non-specific NP remains within VP and SpecTP is not overtly filled, EPP on T can still be satisfied. As indicated in (49b) above, I suggest that a silent topic (e.g. stage topic (cf. Erteschik-Shir 1997)) satisfies an EPP requirement. This will be discussed in the next subsection 2.4.1.

2.4.1 Stage topic in SpecTP and EPP

I suggested in 2.4 that in unaccusatives a null stage topic can occupy SpecTP to satisfy an EPP on T when the subject of an unaccusative remains in VP. Erteschik-Shir (1997, p. 26–27) states that a spatio-temporal element/argument can be a 'topic' of a sentence since it signifies the temporal location in a given discourse[25] and that the term *stage* refers to the time/place at which the event expressed by the sentence takes place (thus, it does NOT refer to stages of individuals (cf. Carlson 1977)). It is well known that a spatio-temporal location can satisfy EPP on T in, for example, locative inversion constructions in English:

(50) a. Down the hill rolled the baby carriage.
b. On this wall hung a pricture of Mehmet.

It has been noted that locative inverstion constructions like (50) are confined to unaccusative constructions (Hoekstra & Mulder 1990). In a language like English, locative inversion is very sensitive to microscopic properties of individual unaccusative verbs – only a subset of unaccusatives does allow locative inversion. If so, it is possible to say that Turkish allows a null

[25] Erteschik-Shir (1997) gives a card file index as an example.

stage topic, typically a locative,[26] to occupy SpecTP and satisty EPP requirements on T only in certain constructions: some unaccusatives, not necessarily for all of them (since this is extremely sensitive to circumstances such as English locative inversion constructions). I argue that in Turkish when EPP on T cannot be satisfied by a definite/specific DP (or when SpecTP is seemingly empty) a stage topic (either null or overt) appears in SpecTP and satisfies a requirement of EPP. Therefore, an apparently empty SpecTP shown in (49b) is actually filled by a stage topic. And I claim that this stage topic can be locatives or temporal adverbials (cf. Kratzer 1995).[27] The following is the way that EPP on T is satisfied by a stage topic:

(51) a. [$_{TP}$ Ø$_{[stage\ topic]}$ [$_{T'}$ [$_{VP}$ Adam gel-di]]] (SpecTP: a null statge topic)
man arrive-PAST
'A man arrived.'

b. [$_{TP}$ Ev-de [$_{T'}$ [$_{VP}$ adam gel-di]]] (SpecTP: a locative)
home-at man arrive-PAST
'A man arrived at home.'

c. [$_{TP}$ Dün [$_{T'}$ [$_{VP}$ adam gel-di]]] (SpecTP: a temporal adverbial)
yesterday man arrive-PAST
'A man arrived yesterday.'

Evidence also comes from unergative structures where an *overt* stage topic appears. Consider (52):

(52) a. *Adam uyu-muş.
man sleep-PAST
'*A man slept.' [OK: 'The man slept'][28]

b. Burada (bir) adam uyu-muş.
here man sleep-PAST
'A man slept here.' (modified from Cagri 2004)

[26] Tortora (in press) shows that in Borgomanerese and Italian a phonogogically null *locative* (*pro-loc*) can occupy SpecTP/SpecAgrSP in unaccusatives such as *arrive*. Therefore, it is entirely possible to assume that a stage topic can be phonologically null and inserted into SpecTP, as shown in (49b). See Tortora (in press) for more refined and detailed discussions and analyses of a null/overt locative element as well as unaccusative constructions.

[27] It can be said that predicates that allow a stage topic in its structure are stage-level (or thetic) predicates (in a sense of Carson 1977) (e.g. Diesing 1992; Jäger 1995; Kratzer 1995, among others)

[28] As I have discussed in 2.4, only the definite/specific interpretation is available (with a distinctive prosody) in (52a). Prosody will be shown in Chapter 4.

As we saw in the previous section 2.3, the subject of an unergative *must be* definite/specific, which shows that the subject must move into SpecTP for EPP reasons. Unergatives (and transitives) do not normally permit an indefinite/non-specific subject. This is the restriction which is similarly observed in English locative inversion constructions – such inversion constructions never happen in unergatives/transitives. However, as shown in (52b), if an overt locative *burada* 'here' appears in sentence-initial position, the indefinite reading of *adam* 'man' is possible. I take this as evidence that a spatio-temporal artument in SpecTP satisfies the EPP requirement on T. This again supports the claim that whenever DP cannot (or does not) move into SpecTP a stage topic is inserted. While unaccusative constructions allow a null stage topic in SpecTP, in unergative (and transitive) constructions, an over element (either DP or stage topic) must be present in SpecTP. [29]

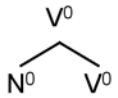
2.5 Incorporation approaches: Do a bare noun and a verb form a single unit?

2.5.1 Head-incorporation (Mithun 1984; Knecht 1986; Nilsson 1986; Kornfilt 2003)

As the above examples have shown, indefinite/non-specific bare noun phrases always occur in the pre-verbal position. Due to the seemingly fixed position for a bare noun phrase and a verb, it has been argued that a bare noun and a verb undergo incorporation. One type of approach to incorporation is a head incorporation analysis (à la Baker 1988) where a bare N^0 undergoes raising, incorporating into the verb (V^0) (e.g. Mithun 1984; Knecht 1986; Nilsson 1986; Kornfilt 2003), as shown in (53):

[29] Another question with regard to EPP would be which feature of T is the EPP property marked on in Turkish. For instance, in English, EPP is assumed to be a property of either the phi- or the (nominative) case-features of T. In Turkish, however, EPP does not seem to be related to phi or case. Now if *dün* 'yesterday' in (51) can satisfy the EPP which checks neither phi- nor case-features against T, then the EPP property must be specified on some other feature of the T head. One possibility is that it could be the tense feature.

(53)



Under the head incorporation analysis, a noun N^0 and a verb V^0 create one single lexical unit. Such an analysis, however, does not seem to hold true for Turkish. Focus particles[30] such as *dA* 'too', *mI* (question), and the adverbial *bile* 'even' can intervene between a bare noun and a verb (Erguvanlı-Taylan 1984; Ketrez 2005):

(54) Murat elma ***de*** ye-di.
Murat apple too eat-PAST
'Murat ate an apple, too.'

(55) Murat elma ***mi*** ye-di?
Murat apple Q eat-PAST
'Did Murat eat an apple?'

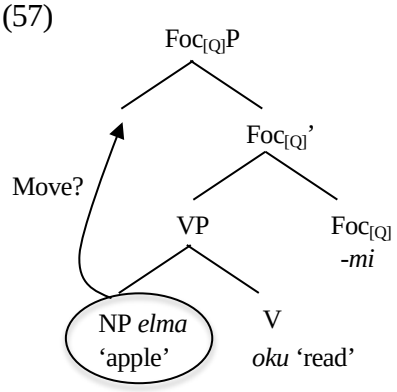
(56) Murat elma ***bile*** ye-di.
Murat apple even eat-PAST
'Murat even ate an apple.'

Examples (54) through (56) challenge the view that "a bare noun + a verb" should be a single unit, especially given the fact that, though these particles are single words, it is not the case that they form an X^0-level unit with the bare object. This can be seen by looking at the syntactic position in the tree of focus particles: These particles originate higher in the tree, i.e. not directly on the object or, for that matter, on the verb, as is argued by Kahnemuyipour and Kornfilt (2006) for Turkish (and Kayne 1998 for English). In fact, Kahnemuyipour and Kornfilt specifically mention the question marker *mi* (see (55)) as an example to support their argument for Turkish focus particles and the Focus Phrase (FocP) they posit above the object (or VP). According to Kahnemuyipour and Kornfilt (2006), the focus (question) marker *–mi* in (55) has its own projection ($Foc_{[Q]}P$) that appears in the *verbal*

[30] For a discussion of the status of focus particles in Turkish, see Besler (1999), Kelepir (2001) and Ketrez (2005).

domain, and a focused phrase moves to the specifier position of $Foc_{[Q]}P$.[31] Though Kahnemuyipour and Kornfilt do not provide any insights for a sentence like (55) (and its syntactic structure) (see also Footnote 32), the relevant structure for the example (55) on the basis of their account can be illustrated as in (57):

(57)



(modified from Kahnemuyipour and Kornfilt 2006)

Since Kahnemuyipour and Kornfilt (2006) assume phrasal movement,[32] a bare object *elma* 'apple' moving to $SpecFoc_{[Q]}$ cannot be an N^0. Based on this, their system clearly goes against the head-incorporation account in which a bare noun + a verb must be a single, lexical unit.

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[31] Here, one might raise the question of whether a bare object can move VP-externally. The movement discussed in Kahnemuyipour and Kornfilt (2006) is not an instance of A-movement since SpecFocP is *not* an A-position. Thus, it can be argued that postulating a structure like (57) (as an instance of A-bar movement) is possible. At least, we can distinguish A-movement (L-related) vs. A-bar movement here. I do not assume that a bare object itself is physically movable to another A-position, however. (See e.g. Gračnin-Yüksek & İşsever (2011) for the discussion of VP-fronting in Turkish. Gračnin-Yüksek & İşsever (2011) propose that a bare object cannot move but 'VP' containing a bare object can be moved to the specifier of some higher projection (right below TP). Thus, an apparently dislocated bare noun object is actually inside of the fronted VP.) Further research is necessary.

[32] Kahnemuyipour and Kornfilt (2006) show two examples which contain the question marker *–mI* (the question marker is indicated in boldface), as shown in (i) an (ii):

(i) a. Mektub-u oku-du-nuz-**mu**, yaz-dı-nız-**mı**. (Kahnemuyipour and Kornfilt 2006)
letter-ACC read-PAST-2PL-Q write-PAST-2PL-Q
'Did you read the letter, (or) did you write (it)?'
b. $[_{Foc[Q]P}$ [TP *(you) read the letter*$]_i$ $[_{Foc[Q]'}$ [$Foc_{[Q]}$ *–mu* [~~TP~~ t_i]]], …

(ii) Mektub-u-**mu** oku-du-nuz, kitab-ı-**mı**.
letter-ACC-Q read-PAST-2PL read-ACC-Q
'Did you read the letter or the book?' ('Was it the letter that you read or the book?')

Concentrating only on the example (i), Kahnemuyipour and Kornfilt propose that the example (ia) obtains as a result of phrasal movement, based on prosodic prominence. As shown in (ib), $Foc_{[Q]}P$ appears right above TP and an entire TP is a focused element and moves to $SpecFoc_{[Q]}P$. Though they do not discuss the syntactic structure for the example (ii), they claim that in both (i) and (ii) $Foc_{[Q]}P$ appears in the *verbal* domain. Therefore, for a structure like (ii) where a focus marker attached to a focalized nominal, it can (at best) be assumed that $Foc_{[Q]}P$ projects on the top of VP (or *v*P), and then a focalized noun phrase (NP or DP) moves to $SpecFoc_{[Q]}$, as shown in (57) (which I reproduced on the basis of their proposal). Even though they do not include a sentence with a bare object such as

Furthermore, as illustrated in (58) below, a bare noun allows adjective modification:

(58) Ayşe acılı çorba iç-ti.
Ayşe spicy soup drink-PAST
'Ayşe ate a spicy soup.'

The fact that an adjective can modify a bare noun shows that a bare noun phrase is bigger than a head; that is, phrasal. Again, as with the focus particles above, it is not the case that adjectives form an X^0-level unit with the noun, as is evidenced by the fact that these adjectives can also be intensified or degree-modified, as seen in (59) and (60) below:

(59) Ayşe aşırı acılı çorba iç-ti.
Ayşe too spicy soup drink-PAST
'Ayşe ate an extremely spicy soup.'

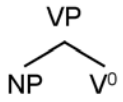
(60) Ayşe Ali-dan daha yüksek not al-dı.
Ayşe Ali-than more high grade get-PAST
'Ayşe got a higher grade than Ali.'

In sum, since the claim that "a bare noun +a verb" is a single lexical unit does not seem to hold true, the head incorporation analysis does not successfully account for the syntactic position of bare nouns.

2.5.2 Pseudo-incorporation (Öztürk 2009)

Another approach to incorporation is a pseudo-incorporation account (e.g. van Geenhoven 1998 for West Greenlandic; Massam 2001 for Niuean; Dayal to appear for Hindi). Öztürk (2009) acknowledges that a bare noun in Turkish is phrasal (i.e. NP), and proposes that *all* bare nouns (including subjects and objects) that fail to overtly check case undergo pseudo-incorporation. Following Massam (2001), Öztürk claims that Turkish bare nouns are not true syntactic arguments, but they are part of predicates. The structure she assumes is sketched in (61):

(61)



(55), their system implies that a bare object followed by the question marker *–mI* (see (55)) also undergoes movement. This is not expected if head-incorporation is assumed.

According to Öztürk, when a (transitive) sentence like (62a) containing a bare object is passivized, such a passivized sentence can be regarded as an impersonal passive construction, as in (62b). This patterns with an unergative construction which is passivized in (62b):

(62) a. Tom oda-da *kitap oku*-du.
Tom room-LOC book read-PAST
'Tom read a book in the room (Tom did book reading in the room).'

b. Oda-da *kitap oku*-n-du. (impersonal passive)
room-LOC book read-PASS-PAST
'A book was/Books were read in the room (Book-reading was done in the room).'

(63) a. Insanlar *koş*-tu. (unergative)
People run- PAST
'People ran.'

b. *Koş*-ul-du. (impersonal passive)
run-PASS-PAST
'Running happened.' (modified from Öztürk 2009)

The point made by Öztürk here is that the VP [*kitap oku*-] 'to read a book/books' in (62) behaves as an intransitive (unergative) verb, showing the same pattern as (63a, b). The pseudo-incorporated NP *kitap* 'book' and the verb *oku*- 'to read', she claims, are a single constituent, forming a complex predicate – an example like (62a) is, on her view, not a true transitive construction, but rather intransitive (unergative). For this reason, a pseudo-incorporated NP is *invisible* as a syntactic object, which means that a bare NP does not saturate a theta-role and is not associated with case. Nevertheless, according to Öztürk, allegedly pseudo-incorporated NPs have full NP status and receive theta-roles as well as structural case although they *do not* function as syntactic arguments. The reason why Öztürk makes such a claim is that indefinite bare NPs *sometimes* behave like arguments (in Öztürk's sense), as we can see with causativized sentences in (64) and (65). As discussed in (62) and (63) above, Öztürk claims that under passivization, sentences like (65a, b) pattern with unergatives. Then, one could expect that under causativization a sentence like (65a)

behaves the same as unergatives. However, that is not the case. See the following causative sentences:

(64) a. Mehmet *koş*-tu. (unergative)
Mehmet run-PAST
'Mehmet ran.'

b. Ayşe Mehmet-i *koş* -tur -du.
Ayşe Mehmet-ACC run-CAUS-PAST
'Ayşe made Mehmet run.'

As in (64b), when an unergative sentence is causativized, the subject (*Mehmet* here) is marked with the accusative. Now, consider a sentence with an indefinite bare object:

(65) a. Mehmet *balık tut*-tu.
Mehmet fish catch-PAST
'Mehmet caught fish.'

b. Ayşe Mehmet-e/*i *balık tut* -tur -du.
-DAT /*ACC fish catch- CAUS-PAST
'Ayşe made Mehmet catch fish.'

c. Ayşe Mehmet-e/*i balığ-ı tut -tur -du.
-DAT /*ACC fish ACC catch- CAUS-PAST
'Ayşe made Mehmet catch the fish.'

(modified from Öztürk 2009)

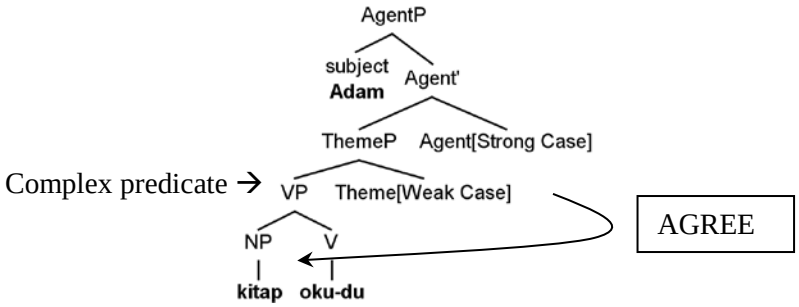
Öztürk admits that (65a) and (65b) are not on par with unergatives like (64a) and (64b). If [*balık tut*-] 'to catch fish' in (65a) acts like an unergative predicate, *Mehmet* in (65b) should be able to be marked with accusative just like (64b). However, *Mehmet* has to be marked with dative, which obviously patterns with transitives like (65c). It is, then, possible to say that the indefinite bare NP *balık* 'fish' in (65b) functions as an object in this sentence, on par with the accusative-case marked *balığ-ı* 'fish' in (65c). Apparently, an indefinite bare object is still associated with structural case as well as a specific theta-role. Öztürk, however, maintains that pseudo-incorporated bare NPs are not syntactic arguments *initially*, but '*something*' can make them visible in syntax. What Öztürk proposes is that there are theta-assigning functional projections above VP, which can turn

syntactically invisible NPs into full NPs. Following are Öztürk's proposed structures. Let us start with pseudo-incorporation of themes:

(66) **PSEUDO-INCORPORATION OF THEMES**:

a. Adam kitap oku-du.
man book read-PAST
'The man read a book.'

b.



Öztürk develops the idea based on the visibility condition (Chomsky 1986), where NPs must be case-marked for them to be visible for theta-marking. Proposing two theta-role introducing functional projections (labeled as SpecAgentP and SpecThemeP), as shown in (66), Öztürk claims that only 'true' syntactic arguments, receiving a definite interpretation, can appear in the Spec's of AgentP and ThemeP. Öztürk argues that case features are not checked by T or *v*[33], but checked by the heads of AgentP and ThemeP. Strong case features on Agent/Theme heads are checked off by directly merging an NP into the Spec of AgentP/ThemeP. On the other hand, weak case features are checked via Agree (in Chomsky's 2000, 2001 sense) as a *Last Resort* strategy. Once the case feature is checked off, a bare NP is ready for receiving a theta-role in accordance with the visibility condition – this is how a syntactically invisible NP (a pseudo-incorporated NP) can receive the full NP status (as a syntactic argument) in Öztürk's system.

[33] Öztürk assumes that Turkish phrase structure lacks functional projections such as *v*P and DP (See Öztürk 2004, 2005 for details). It seems that the functional projections Öztürk proposes here occur right under TP. Under this proposal, NPs never raise for Case or EPP reasons.

There are, however, some serious problems with this proposal. First, it is normally assumed that theta-roles are assigned in a strictly local fashion (unlike a system like Agree (e.g. Chomsky 2001)). This is true also in frameworks that explicitly permit movement into theta-positions (see e.g. Hornstein 2001). Thus, in (66), the bare NP *kitap* 'book' should normally be theta-marked within VP, the canonical position where theta-roles are assigned. Further, we have already seen that the bare NP *kitap* 'book' behaves just as an accusative object in a causative construction in (65) – which shows that the lexical V possibly assigns a theta role to a bare NP.

If we assume, however, as Öztürk does, that theta-roles are assignable in SpecAgentP and SpecThemeP, then, it is possible to think of Agent and Theme theta-roles as being assigned by the heads of these very projections to their specifiers, which would, then, be a local relationship, i.e. solving the locality problem. This, however, creates another problem: Once one innovates a ThemeP and an AgentP, as is done by Öztürk, and originates the Theme and Agent within these projections, then, the VP will be a projection that cannot take any arguments of its own. The status and function of the VP will, then, have to be reconsidered, for the only things that originate within it will have to be restricted to adjuncts, oblique arguments (whose status as genuine arguments is debatable), and secondary predicates only. Also, given that case and theta assignments are assumed to be separate operations (for example, T and *v* can check/assign case (e.g. Chomsky 1995), it is not clear why we need an additional functional projection such as ThemeP which is responsible for theta-marking as well as case assignment.

Second, Öztürk argues that "*all*" bare nouns (both agents and themes) can undergo pseudo-incorporation, which makes her "pseudo-" incorporation very different from "incorporation," since, under the latter, agents can never incorporate. Baker (1988) claims that Noun Incorporation is restricted to nouns in the complement position of the verb (i.e. themes); that is, agents do not

incorporate into verbs. Baker has shown that the incorporated noun can only be interpreted as the theme argument of the verb. See the examples from Mapudungun:

(67) Ñi chao kintu-waka-le-y.
my father seek-cow-PROG-IND.3sS
'My father is looking for the cows.'
NOT: 'The cow is looking for my father.' (Baker 2009)

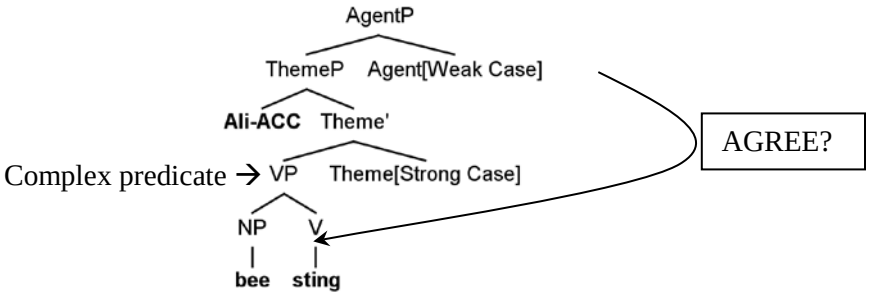
(68) Juan ngilla-waka-lel-fi-y.
Juan buy-cow-appl-3o-ind.3sS
'Juan bought a cow for him/her.'
NOT: 'Juan bought it for the cow.' (Baker 2009)

In Baker's (1988, 2009) theory of Noun Incorporation, *only* the theme/underlying direct object originates as a sister of the verb (the UTAH)[34] and head movement can only move a head to adjoin it to the immediately higher head. Mapudungun is a language with free word order though direct objects usually follow the verb. But a subject (agents) can also immediately follow a verb frequently, which again creates the V–N word order. However, Baker claims that even though a subject often follows a verb, subject incorporation never takes place.

On Öztürk's account, on the other hand, in addition to the case of internal arguments discussed above, sentences like (69) are instances of pseudo-incorporation:

(69) **PSEUDO-INCORPORATION OF AGENTS**:
a. Ali-yi arı sok-tu.
Ali-ACC bee sting-PAST
'A bee stung Ali.'

b.



[34] UTAH = Uniformity of Theta Assignment Hypothesis (Baker 1988)

Arguing against the assumption that an external argument of a transitive verb is introduced higher in the structure (e.g. Kratzer 1996), Öztürk maintains that the bare noun *arı* 'bee' in (69) is pseudo-incorporated into the verb and that the accusative-marked object *Ali* is directly merged to SpecThemeP, as illustrated in (69b). Again, I maintain that genuine incorporation of agents/external arguments into verbs never seems to be possible. Here, the indefinite subject *arı* 'bee' is base-generated within a root-VP (i.e. in a lower position than a theme argument) though Öztürk does not clearly mention exactly where the position of *arı* 'bee' should be (either a complement of the verb or a specifier of the verb). If Öztürk's assumption about Turkish external arguments of transitive verbs originating low and being able to (pseudo-) incorporate is right, this raises the serious typological question of why external arguments are apparently unincorporable in languages showing overt incorporation (e.g. Mohawk and Mapudungun, as discussed in Baker (1988, 2009)). Crucially, if low base-generation and incorporation of external arguments for Turkish, then the question to be raised is why this does not *export* to other languages.

Further, the proposal for agent pseudo-incorporation does not capture most of the Turkish data. Öztürk assumes that a sentence with agent incorporation like (69a) is not truly transitive since it cannot be passivized, as in (70b):[35]

(70) a. Ali-yi [NP arı] sok-tu.
Ali-ACC bee sting-PAST
'A bee stung Ali.'

b. *Ali sok-ul-du.
Ali sting-PASS-PAST
'Ali was (bee) stung.' (Öztürk 2009: 341)

[35] According to Öztürk, the following example (i), where the direct object is accusative-case marked, is a true transitive sentence:

(i) Arı Ali-yi sok-tu.
bee Ali-ACC sting-PAST
'The bee stung Ali.'

Öztürk argues that (70b) is ungrammatical and cannot be passivized since its active counterpart (65a) lacks an external argument. So the same way unaccusative sentences cannot be passivized, passivization of this sentence is problematic, too, on her account. This argumentation, however, is not tenable. Now, consider (71):

(71) a. Mektub-u [NP çocuk] bul-du.
letter-ACC child find-PAST
'A child found the letter.'

b. Mektup bul-un-du.
letter find-PASS-PAST
'A letter/the letter was found.'

In Öztürk's view, a sentence such as (71a) (which is comparable to (70a)) should be an instance of agent pseudo-incorporation, for she claims that *all* bare nouns could undergo pseudo-incorporation, and that agent incorporation is a highly productive phenomenon. If that was true, the passivized sentence (71b) would have to be ungrammatical just like the sentence we have seen in (70b); however, (71b) is well-formed. In fact, structures like (71a) and (71b) are very common in Turkish. Moreover, there is *no* guarantee that the implicit agent of a passive in (70b)/(71b) must be a bare noun. To put it more concretely, the active counterpart of (71b) would be "SOMEONE found a/the letter", in which the implicit subject 'SOMEONE' is not necessarily a bare agent, but it can be represented as pro/PRO.[36] If the implicit agent is associated with some pronominal element, then the active counterpart to a passive with an implicit agent does not involve pseudo-incorporation of agents since a pronominal agent is not a bare agent (noun). This accordingly indicates that active sentences like (70a) (and (71a)) are technically transitives, and are therefore eligible for passivization. The ungrammaticality of (70b) cannot be accounted for on the basis of the intransitivity of (71a).

Though it is probably true that the NP *arı* 'bee' and the verb *sok-* 'to sting' are closely tied to each other, perhaps semantically, and somehow passivization is not possible in (70b), given that

[36] It can be an *arbitrary* pronoun, which would correspond semantically to "people (in general)" (den Dikken, p.c.).

active-passive pairs like (71) are commonly seen, and that they do not pattern with unaccusatives, contrary to what Öztürk claims, the pseudo-incorporation account seems to capture only a small portion of the data; the rest of the data, under this account, would have to be accounted for by using other means, thereby making Öztürk's account highly uneconomical, which is not the case on the current account, as we will see later in Chapter 4. On the current account, a single phenomenon underlies all indefinite subjects, as well as all definites.

Another piece of evidence against the subject/agent pseudo-incorporation approach comes from unergative constructions in Turkish. Öztürk's unified analysis of pseudo-incorporation of agents and themes assumes that subjects of unergatives (as well as transitives) can be pseudo-incorporated. This would not be in the right direction. As I have already shown in 2.1.4 above, subjects of unergatives are definite/specific in Turkish (see also Özçelik & Nagai 2011), as illustrated in (72), repeated from (30) – (32):

(72) a. Adam koş-tu.
man run-past
'The man/*A man ran.

b. Çocuk gül-dü.
child laugh-past
'The child/*A child laughed.'

c. Kız uyu-du.
girl sleep-past
'The girl/*A girl slept.

The pseudo-incorporation approach cannot account for the examples in (72). Öztürk claims that pseudo-incorporated NPs are *always* indefinite/non-specific and occur within VP. This, however, cannot apply to unergatives. As I have already pointed out, since bare subjects of unergatives are interpreted as specific, they occur in a higher position than VP, which obviously contradicts Öztürk's

assumption that *all* bare nouns can undergo pseudo-incorporation.[37] Of course, Öztürk can potentially propose additional arguments to capture the behavior of unergatives, but that would be against her claim that *all* bare nouns behave the same way, and would render her account even more uneconomical. On the current account, though, the behavior of unergatives, as we briefly saw in 2.3, and will see in the following chapters, is accounted for by means of proposals that are commonly held to be universal by other researchers. So no additional constructs would have to be introduced, on the current account, for unergatives; in fact, as we will see later, unergatives provide independent evidence for the current account.

Lastly, in a sentence like (73), which patterns with (74a), Öztürk assumes that when the accusative-marked phrase *Ayşe-yi* appears sentence-initially, [$_{VP}$ *köpek* 'dog'+ *ısır-* 'bite'] must form a single constituent, which means, according to Öztürk, the "dog-biting" event (which happens to Ayşe):

(73) Ayşe-yi köpek ısır-dı.
Ayşe-ACC dog bite-PAST
'Dog-biting happened to Ayşe.' ('A dog bit Ayşe.') (Öztürk 2009: 352)

In Öztürk's system, the accusative-marked *Ayşe-yi* is merged to a position higher than the subject *köpek* 'dog'. Now, consider (74):

(74) a. iki çocuğ-u köpek ısır-dı. (✓*two* children>*a* dog; ✓*a* dog> *two* children)[38]
two child-ACC dog bite-PAST
'A dog bit two children.'

b. üç köpek iki çocuk ısır-dı. (✓*three* dogs> *two* children; **two* children>*three* dogs)
three dog two child bite-PAST
'Three dogs bit two children.'

[37] In Chapter 4, it will be shown that there is strong prosodic evidence supporting the proposal that subjects of unergatives (as well as transitives) originate in Spec*v*P (external to VP), as previously proposed (e.g. Chomsky 1995).

[38] The informant I consulted gave me the two possible readings, as shown in (74a); that is, an indefinite subject can take wide scope over the accusative-case marked object. This is not what is argued in the literature – non-case marked nouns with an indefinite/non-specific reading are argued to obligatorily have narrow scope (e.g. Aygen 1999, 2001; Kelepir 2001; among others). However, the examples (73) and (74) show that there is a clear asymmetry between a subject and an object (see fn.39). The result (74) indicates that a subject originates in a position higher than an object.

In (74a), the sentence is ambiguous between a reading where two children were each bitten by some dog and a reading where there is some dog that bit two children. It is generally assumed that the scope of a moved QP can be determined at either its pre-movement position (i.e. scope reconstruction) or its post-movement position (i.e. surface scope). The two different semantic interpretations can obtain due to two possible positions for QP (at LF), which indicates that movement is involved in (74a). If the accusative-marked phrase, as Öztürk claims, were directly merged to the sentence initial position, no movement (A-movement) would take place and thus syntactic reconstruction is not possible. However, the fact that two interpretations are available in (74a) suggests that the accusative-marked *iki çocu*ğ*-u* 'two children' originated in a position lower than *köpek* '(a) dog' and then was scrambled to the sentence-initial position. On the other hand, in (74b), only the surface reading in which three dogs bit two children each is available. Given that a non-case-marked object is assumed to stay in a low position (or in its base-position) in syntax, it follows from (74b) that the subject *üç köpek* 'three dogs' must appear in a higher position than the object *iki çocuk* 'two children' throughout the derivation.[39] Since it has been shown that an accusative-marked object is generated in a lower position than a subject, I conclude that an agent argument is not incorporated into a verb within VP. Therefore, the analysis proposed by Öztürk does not correctly predict the syntactic positions for (bare) subjects and objects.

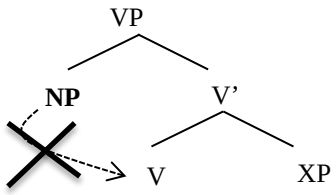
2.5.3 Summary

In summary, the apparently close relation between a bare noun and a verb makes a prediction about the relative position of a bare object in syntax; however, the (pseudo-) incorporation account does not necessarily ensure that a bare argument is incorporated into a verb. In fact, Ketrez (2005) states that VP can behave like a complex predicate, without assuming the instance of incorporation. As we will

[39] A caseless object does not seem to be able to scope over any quantifiers (covertly and overtly) and it does not have any ability to move to a higher position, either. Aygen (1999, 2001) argues that this is associated with case-marking. That is, a case-marked object occurs in a position higher than its base-position and can move further to a higher position. A case-marked object seems scope-independent (in most contexts) (Aygen 1999).

see later, the current proposal does not co-opt the Noun Incorporation analysis: I hypothesize that in Turkish the internal argument of V originates in the *specifier* of VP. Though this will be discussed in the following sections and chapters, I sketch the proposed (VP) structure here:

(75)

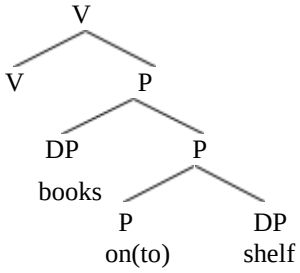


As argued in Hale and Keyser (1993, 2002), verbs cannot incorporate 'specifiers'since specifiers are located in a place higher in the tree (e.g. agents); thus, they are *not* c-commanded by the incorporating V head. That is, Noun Incorporation takes place, where the V–N relation holds strictly between the V head and its complement (cf. Baker 1988). Since NP in SpecVP shown in (75) is not c-commanded by (the incorporating head) V, NP cannot be incorporated into V from the specificer position.[40]

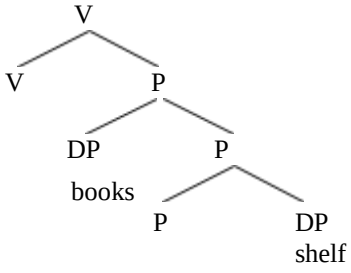
I conclude here that the (pseudo-) incorporation analysis is not successful – such an implementation does not deliver the right results.

[40] Notice that Hale and Keyser (1993, 2002) shows a structure like (i):

(i) a.



b.



(ii) *He booked on the shelf. (OK: He put books on the shelf./ He shelved books.)

Hale and Keyser (1993, 2002) claim that 'books' in the specifier of PP (or small clause) cannot be incorporated into V when the P head is overtly filled (Head Movement Constraint, Travis (1984)), as shown in (ia). In (ib), on the other hand, 'shelf' (incorporated into the empty head P) is incorporated into V. In both cases, the specifier 'books' cannot be incorporated into V. The structure (i) is a slightly a different version than (75) above since what I propose in (75) is that NP/DP is base-generated in SpecVP, not necessarily in the specifier of the small clause. Whichever the case, it can be concluded that NP/DP in the specifier position cannot be incorporated into a verb. (It can also be claimed that specifiers that are *not* c-commanded by the incorporating V head, as illustrated in (75), can *never* be incorporated into the verb (cf. Damonte 2004).)

2.6 Data in question: Where do Turkish nominals occur in syntax?

The crucial question in this study is where exactly nominal arguments appear in syntax. Based on Turkish basic sentence structures analyzed in the previous research, we have observed that a definite/specific argument occurs syntactically in a different (or higher) position than an indefinite/non-specific argument. To be more precise, a definite/specific argument that originates within *v*P/VP moves to SpecTP (for EPP reasons) while an indefinite/non-specific remains in *v*P/VP. We have also seen in the literature that the previous studies have tacitly assumed that the bare internal object (i.e. non-specific argument) of a verb is in the complement position of V. However, when sentences containing a bare internal argument and a low adverb are carefully looked at, we will see some patterns which have not been considered in the literature. In what follows, I will show the data in question in the current study.

2.6.1 A sentence with low adverb modification

We saw that the low adverb cannot appear in an unaccusative with a non-specific argument like (76b), which is repeated from (47):

(76) a. [Adam [**VP** *çabuk* gel-di]
man quickly arrive-PAST
'The man arrived quickly.'

b. *[*çabuk* [**VP** adam gel-di]]
quickly man arrive-PAST
'A man arrived quickly.'

The immediate question is, then, why the low adverb can appear to the right of a definite noun in (76a) but it cannot appear to the left of an indefinite noun in (76b). Crucially, certain structures do not allow low adverb modification, which is not limited to unaccusative constructions like (76). Consider the following examples:

(77) TRANSITIVE

a. [Adam [*çabuk* [$_{VP}$ kitap oku-du]]]
man quickly book read-PAST
'The man quickly read a book.'

b. *[Adam [*çabuk* [$_{VP}$ para bul-du]]]
man quickly money find-PAST
'The man quickly found a coin.'

(78) INTRANSITIVE (UNACCUSATIVE)

a. (?)[*Çabuk* [$_{VP}$ hastalık yayıl-dı]]
quickly disease spread-PAST
'A disease quickly spread.

b. *[*Çabuk* [$_{VP}$ doktor gel-di]]
quickly doctor arrive-PAST
'A doctor quickly arrived.'

The example (77) is a transitive sentence and (78) is an unaccusative sentence. As can be seen, the (*b*) examples are ungrammatical. If VPs containing a bare internal object were treated in the same way, as seen in head/pseudo-incorporation analyses, one needs to explain why the low adverb *çabuk* 'quickly' cannot occur in (77b) and (78b) whereas it can in (77a) and (78a). Notice that once a direct object (or a surface subject) is shifted away from VP to some higher position, getting the definite/specific interpretation, the same adverb can occur (compare (79) with (77b) and (78b)):

(79) a. [Adam [para-yi [*çabuk* [$_{VP}$ bul-du]]]]
man money-ACC quickly find-PAST
'The man quickly found the coin.'

b. [doktor [*çabuk* [$_{VP}$ gel-di]]
doctor quickly arrive-PAST
'The doctor quickly arrived.'

What I postulate here is that syntactic structures of (77a) and (78a) are different from the ones of (77b) and (78b). To be more specific, I postulate that the syntactic structures of the (*a*)-examples and the (*b*)-examples are different due to their *aspectual* (Aktionsart) properties (i.e. *achievements*, *activities*, *accomplishments*, and *states*) (Vendler 1967), which has never been discussed in previous research. (77a) and (78a) are accomplishments and (77b) and (78b) are achievements. In order to understand the syntactic positions of Turkish nominal arguments, I believe that it is important to see the structural difference and contrast between achievements and accomplishments. In this study, focusing on dynamic predicates (i.e. activities, accomplishments and achievements), we examine the following issues: (*i*) the syntactic structures of dynamic predicates based on Aktionsart, (*ii*) nominal positions (specific vs. non-specific) and (*iii*) the syntactic position of a low adverb, which will be discussed in Chapter 3.

2.6.2 Number (quantifier) + NP

2.6.2.1 Puzzle: *Bir* 'a/one' NP

As we have seen above, I raised the question of why a low adverb such as *çabuk* 'quickly' can occur in certain types of constructions but not in others. Up to now, we have focused on bare internal arguments and accusative-marked arguments. In this section, we will consider a bare (or caseless)

NP object modified by *bir* 'a/one' and a number phrase. In the literature, the status of a caseless bare object modified by the numeral *bir* 'one' in the form of *bir* NP has often come into the spotlight due to the two readings (the cardinal interpretation and the indefinite interpretation).[41] Therefore, it is worth noting the behavior of *bir* NP here. The question is whether the numeral *bir* and the indefinite marker *bir* discussed in the literature behave in the same way or not, particularly with regard to low adverb modification. Let us consider a sentence with low adverb modification again:

(80) a. Adam *çabuk* kitap oku-du.
man quickly book read-PAST
'The man quickly read a book.'

b. *Adam *çabuk* bir kitap oku-du. (*numeral*)
man quickly a/one book read-PAST
'The man quickly read a book.'

c. Adam *çabuk* bir kitap oku-du. (*indefinite*)
man quickly a/one book read-PAST
'The man quickly read a book.'

(81) a. *Adam *çabuk* para bul-du.
man quickly money find-PAST
'The man quickly found a coin.'

b. *Adam *çabuk* bir para[42] bul-du. (*numeral*)/ (*indefinite*)
man quickly a/one money find-PAST
'The man quickly found a coin.'

As shown in (80b), a sentence with the numeral *bir*+NP does not allow low adverb modification although (80a) in which the same verb *oku-* 'read' appears is grammatical. Interestingly, a sentence with the indefinite *bir*+NP allows low adverb modification, as shown in (80c). The example (81), in contrast, does not allow a low adverb at all. To be summarized, only an accomplishment with a bare object and with an indefinite *bir*+NP accept a low adverb, as shown

[41] The status of the indefinite (unstressed) *bir* is disputable. For the detailed discussion of *bir* NP, see e.g. Nilsson (1985); Schroeder (2000); Kelepir (2001); Aydemir (2004); Öztürk (2004); Ketrez (2005).
[42] Though 'one money' in English is not possible, *para* 'money' in Turkish is countable (and it means 'coin'); thus *bir para* 'a/one coin' is grammatical. It should be noted that the example (81) is ungrammatical *not* because of the *bir para* phrase.

in (80a) and (80c). What I am going to argue here is that it is the numeral *bir* that blocks the presence of a low adverb in (80b), not the indefinite *bir*. In Chapter 3, I will argue that this is associated with NumP and its relation to a particular functional projection such as AspP.

Now, since a sentence with the indefinite *bir*+NP allows low adverb modification, we would expect to find some similarity between the behavior of a bare object and of the indefinite *bir*+NP. As shown in in (82) and (83) below, the indefinite *bir*+NP behaves like a bare noun phrase, in terms of temporal modification as well as low adverb modification:

(82) a. Mehmet bir saat boyunca/ *bir saat-te kitap oku-du.
Mehmet one hour for one hour-in book read-PAST
'Mehmet read books for an hour/ *in an hour.'

b. Mehmet bir saat boyunca/ *bir saat-te *bir* kitap oku-du. (*bir*: indefinite marker)
Mehmet one hour for one hour-in a book read-PAST
'Mehmet read books for an hour/ *in an hour.'

(83) a. Mehmet çabuk kitap oku-du.
Mehmet quickly book read-PAST
'Mehmet quickly read a book.'

b. Mehmet çabuk *bir* kitap oku-du. (*bir*: indefinite marker)
Mehmet quickly a book read-PAST
'Mehmet quickly read a book.'

The difference between the numeral *bir* and the indefinite marker *bir* is reflected in the prosody; the numeral *bir* gets stressed, as opposed to the indefinite *bir* which is unstressed (Öztürk 2004), as shown in (84) (a stressed item is indicated in boldface):

(84) a. *bir* **kitap** (an indefinite *bir* – unstressed)
one book
'a book' (an indefinite, arbitrary book)

b. ***bir*** kitap (a cardinal *bir* – stressed)
one book
'one book (not two, …)' (denoting quantity)

(modified from Öztürk 2004; Ketrez 2005)

Let us start with the unstressed *bir*. It is claimed that the unstressed *bir* is not prosodically independent (i.e. does not create its own prosodic word), and attaches directly to a bare noun (e.g.

Goad & White 2009).[43] This suggests that the unstressed *bir* occurs within the same syntactic projection as a bare object (cf. Öztürk 2004). The difference between the unstressed *bir*+NP and a bare NP has been attributed to their number specification. Ketrez (2004) claims that the number feature for a bare NP is underspecified (i.e. it is either singular or plural) while the number feature for the unstressed *bir*+NP is [−plural]:

(85) a. Mehmet $bir_{\text{unstressed}}$ kitap arı-yor.
Mehmet a/one book look.for-PROG
'Mehmet is looking for a book.' (a single, arbitrary book)

b. Mehmet kitap arı-yor.
Mehmet one book look.for-PROG
'Mehmet is looking for a book/books.' (any number of books)
(adapted from Ketrez 2005)

As shown in (85a), *bir* NP denotes a singular object while in (85b) a bare NP can be interpreted as either singular or plural. Though a bare NP and *bir* NP can semantically be different, both of these nominals lack overt case morphology. Ketrez argues that a bare NP lacks DP and Number Phrase (NumP) projections while *bir* NP has NumP.[44] Now, based on the claim that the unstressed *bir* occurs within a bare noun phrase discussed above, I assume that NumP still projects immediately above NP in (85a); however, the phonologically unpronounced Num^0 only holds number features such as [−plural], as illustrated in (86):

(86) $[_{NumP}\ [_{Num'}\ [_{Num}\ \varnothing\ [-\text{plural}]\ [_{NP}\ bir\ \text{kitap}]]]]$ (*bir*: unstressed, indefinite)
one book
'a book'

[43] For the prosodic status/analysis for the unstressed *bir*, see Goad and White (2009), in which the unstressed *bir* is treated as an affixal clitic.
[44] Ketrez (2005) claims that both the unstressed *bir* and the stressed *bir* appear in SpecNumP; thus, the stressed and unstressed *bir* NPs show the same syntactic structure. As I point out above, I assume that the unstressed *bir* NP and the stressed *bir* NP are syntactically different, as shown in (86) and (91) below.

Let us now proceed to the stressed/numeral *bir*. The contrast between the stressed/numeral *bir* and the unstressed *bir* is that the stressed *bir* behaves in the same way as other numerals (and quantity modifiers).[45] First, compare (87) with (88):

(87) Mehmet bir saat boyunca/ *bir saat-te kitap oku-du. (*bare object*)
Mehmet one hour for one hour-in book read-PAST
'Mehmet read books for an hour/ *in an hour.'

(88) a. Mehmet *bir saat boyunca/ bir saat-te bir_{stressed} kitap oku-du. ($bir_{stressed}$ *object*)
Mehmet one hour for one hour-in one book read-PAST
'Mehmet read one/a book *for an hour/ in an hour.'

b. Mehmet *bir saat boyunca/ bir saat-te iki/çok kitap oku-du. (*Num/Q object*)
Mehmet one hour for one hour-in two/many book read-PAST
'Mehmet read two/many books *for an hour/ in an hour.'

Second, compare (89) with (90):

(89) Mehmet çabuk kitap oku-du. (*bare object*)
Mehmet quickly book read-PAST
'Mehmet quickly read a book.'

(90) a. *Mehmet çabuk bir_{stressed} kitap oku-du. ($bir_{stressed}$ *object*)
Mehmet quickly one book read-PAST
'Mehmet quickly read one/a book.'

b. *Mehmet çabuk iki/çok kitap oku-du. (*Num/Q object*)
Mehmet quickly two/many book read-PAST
'Mehmet quickly read two/many books.'

As can be seen, the sentences containing the stressed *bir* and number/quantity expressions in (89) and (90) show the same ungrammaticality. The examples (88) and (90) show clearly that the stressed *bir*+NP behaves differently from a bare noun phrase and the unstressed *bir*+NP.[46] My assumption here is that the stressed *bir* as a numeral is phrasal, rather than a head, and occurs in SpecNumP (or

[45] Just like the stressed/numeral *bir*, the stress falls onto a number/quantity item (in (88b) and (90b)).

[46] In addition, the difference between the stressed *bir*+NP and the unstressed *bir*+NP can also be found in an adjectival construction, as shown in (i):

(i) a. **kırmızı** *bir* kitap (*bir*= unstressed; the adjective *kırmızı* 'red' is stressed)
red one book
'a red book'

b. ***bir*** kırmızı kitap (***bir***=stressed)
one red book
'one red book'

c. *kırmızı ***bir*** kitap (***bir***=stressed)
red one book

The unstressed *bir* follows a modifier in (ia) while the stressed *bir* precedes a modifier in (ib).

SpecQP) and the head Num holds features associated with numbers. What is important here is that the stressed *bir* appears in NumP as an overt material while the unstressed *bir* does not appear in NumP (but in NP). Thus, the syntactic structure of the stressed *bir*+NP can be schematized as in (90):

(91) a. [$_{NumP}$ *bir* [$_{Num'}$ [$_{Num}$ ∅ [−plural] [$_{NP}$ [kitap]]]]] (*bir*: stressed, numeral)
one book
'one book'

b. [$_{NumP}$ *bir* [$_{Num'}$ [$_{Num}$ ∅ [−plural]]]] …… [$_{NP}$ [kitap]] (*bir*: stressed, numeral)
one book
'one book'

It should be remembered that other numerals and quantity expressions such as *birkaç* 'some' and *çok* 'many' behave in the same way. Thus, I assume that these modifiers also occur in the specifier position just like the stressed *bir* in (91).

Now, as shown in (91a, b), I expect that UG allows two structures for a numerically quantified noun phrase. In (91a), NumP dominates NP; that is, the numeral quantifier and the head noun form a constituent (e.g. in achievements). Another structure is given in (91b). In (91b), NumP and NP do *not* form a constituent (e.g. in accomplishments). In such a case, the quantifier is *preferably not* mapped into the same constituent as the NP in Turkish. In Chapter 3, I will argue that in the case of (91b) the overt material in NumP blocks the presence of a low adverb, and that the ungrammaticality of (90) is associated with NumP and its relation to a particular functional projection such as AspP.

2.6.2.2 Review of data and questions

I have analyzed non-case marked objects as NPs or NumPs that lack a DP projection.

Now consider, once again, a sentence with low adverb modification:

(92) a. Adam *çabuk* kitap oku-du. (*bare object*)
man quickly book read-PAST
'The man quickly read a book.'

b. *Adam *çabuk* bir/iki/birkaç/çok kitap oku-du. (*Num/Q object*)
man quickly one/two/some/many book read-PAST
'The man quickly read one/two/some/many books.'

In (92a), a low adverb can appear in a sentence containing a bare object. In contrast, in (92b), a sentence with *Num*+NP does not allow low adverb modification. Now, see (93):

(93) a. *Adam *çabuk* para bul-du. (*bare object*)
man quickly money find-PAST
'The man quickly found a coin.'

b. *Adam *çabuk* bir/iki/birkaç/çok para bul-du. (*Num/Q object*)
man quickly one/two/some/many money find-PAST
'The man quickly found one/two/some/many coin.'

As shown in (93), both (93a) and (93b) are ungrammatical. As I have mentioned earlier, the data shows that only an accomplishment sentence with a bare object (see (92a)) accepts a low adverb. To solve this puzzle, we have four questions to ask:

(i) Accomplishment (92): Why is (92a) grammatical, but (92b) is not? – Is this related to the status of a noun phrase (a bare NP vs. *Num* NP)?

(ii) Achievement (93): Why are both (93a) and (93b) ungrammatical?

(iii) Accomplishment (92a) vs. Achievement (93a) (with a *bare* object): Why is (92a) grammatical, but (93a) is not?

(iv) Where exactly in syntax do Turkish nominals (both subjects and objects) and low adverbs occur?

These questions will be examined in Chapters 3 and 4. Before doing so, we will take a look at what previous research on this issue (i.e. the behavior of noun phrases associated with aspectual properties in Turkish) suggests.

2.7 Review of Syntactic accounts of Turkish arguments, low adverbs, and their positions

2.7.1 Aspectual properties and Turkish nominals: Aydemir (2004)

Aydemir (2004) proposes that the status (syntactic and semantic) of *bir* NP vs. a bare object is different based on aspectual properties of verbs. As discussed above, both sentences with *bir* NP and a bare object receive a non-specific interpretation. To show the contrast between *bir* NP and a bare NP, Aydemir (2004) points out some aspectual difference – a sentence with *bir* NP object is telic[47] while a sentence with a bare object is atelic, as shown in (94):

(94) a. Ali (bir saat boyunca)/(*bir saat-te) çay iç-ti. (atelic)
Ali (one hour for)/ (one hour-in) tea drink-PAST
'Ali drank tea (for an hour)/(*in an hour)'

b. Ali (bir saat boyunca)/(*bir saat-te) bir (bardak) çay iç-ti. (telic)
Ali (one hour for)/ (one hour-in) one glass tea drink-PAST
'Ali drank a (glass of) tea (*for an hour)/(in an hour)'

(modified from Aydemir 2004)

Next, see the example (95) where the sentence contains an adverb. As shown, *kötü* 'bad' and *iyi* 'good' can be used either as an adjective or an adverb (Aydemir 2004):

(95) a. Mehmet kötü araba kullan-ıyor. (*kötü* is adverbial.)
Mehmet bad car use -PROG
'Mehmet drives badly.'

b. Mehmet kötü bir araba kullan-ıyor. (*kötü* must be an adjective.)
Mehmet bad one car use -PROG
'Mehmet drives a bad car.'

(96) a. Oya bugün iyi müze gez-di. (*iyi* is adverbial.)
Oya today good museum tour-PAST
'Oya toured museums well today.'

b. Oya bugün iyi bir müze gez-di. (*iyi* must be an adjective.)
Oya today good one museum tour-PAST
'Oya toured a good museum today.'

[47] Here, Aydemir does not mention that *bir* is stressed (i.e. a numeral) or unstressed (i.e. an indefinite marker). However, based on the discussion in 2.6.2 above, and based on prosodic facts (i.e. that *bir* must be stressed), I assume that *bir* shown here is a numeral since *bir* NP here behaves differently from a bare noun phrase. Also, Aydemir indicates the parenthesized modifier/classifier-like element (*bardak* 'glass'; '(a) glass-of', in this context) between *bir* and a noun phrase, which shows that *bir* discussed here is a numeral (see fn. 38).

As shown in (95) and (96), according to Aydemir (2004), in the (*a*)-examples, *kötü* 'bad' and *iyi* 'good', respectively, are used as an adverb whereas in the (*b*)-examples, the same modifiers are used as an adjective. Aydemir, following the noun incorporation approach (e.g. Kornfilt 1994; see also the discussion of Noun Incorporation accounts in 2.5), argues that *kötü* 'bad' and *iyi* 'good' in the (*a*)-examples can only be used as adverbs since a bare object is incorporated into a verb, forming a complex predicate. In contrast, the modifiers *kötü* 'bad' and *iyi* 'good' in the (*b*)-examples must be interpreted as adjectives, modifying only the following noun *bir* NP. Aydemir (2004) claims that the fact that *kötü* 'bad' and *iyi* 'good' modify only the nominal in the (*b*)-examples is because a *bir* NP is a true argument, as opposed to a bare object that does not function as a syntactic argument.

Aydemir proposes the following syntactic structures:

(97) a. Bare object +V (Noun Incorporation) b. NP (*bir* NP) + V (Not incorporated)

As can be seen in (97), Aydemir (2004) assumes that the internal argument of a verb originates in the complement position. In addition, Aydemir does not show where an adverb occurs. We have already dismissed Noun Incorporation accounts in 2.5; nonetheless, it is worth noting once again that Noun Incorporation approaches do not successfully account for the nominal positions and clausal structure in Turkish, as there are some problems with this type of an account, as will be shown later.

One problem with Aydemir's analysis, which is based on aspectual properties, is that Aydemir only talks about accomplishments, and never mentions achievements. The above

sentences (95) and (96) are compatible with the durational adverbial *x boyunca* 'for *x* time', as given in (98):

(98) a. Mehmet bir saat boyunca araba kullan-ıyor.
Mehmet one hour for car use -PROG
'Mehmet was driving a car for an hour.'

b. Mehmet bir saat boyunca müze gez-di.
Mehmet one hour for museum tour- PAST
'Mehmet toured museums for an hour.'

This indicates that the example (98) is the event that can extend over time (i.e. either accomplishments or activities), not the punctual event (achievements). The predicates presented by Aydemir (2004), shown in (98), are clearly durational. This type of predicate allows low adverb modification, as shown in (99):

(99) a. Mehmet *çabuk/hızlı* araba kullan-ıyor.
Mehmet quickly/fast car use -PROG
'Mehmet was driving a car quickly/fast.'

b. Mehmet *çabuk/hızlı* müze gez-di.
Mehmet quickly/fast museum tour- PAST
'Mehmet toured museums quickly/fast.'

In contrast, a sentence like (100) is incompatible with the durational adverbial:

(100) *Mehmet bir saat boyunca para bul-du.
Mehmet one hour for money find-PAST
'Mehmet found coins for an hour.'

The example (100) is a punctual event (i.e. an achievement); thus, it does not accept the durational adverbial. As indicated earlier (see (93a)), an achievement with a bare object does not allow low adverb modification:

(101) *Mehmet *çabuk/hızlı* para bul-du
Mehmet quickly/fast money find-PAST
'Mehmet found a coin quickly/fast.'

For Aydemir (2004), an adverb should be able to occur in a sentence like (101), just like (99), since a bare object incorporated into a verb behaves as a complex predicate; thus, under

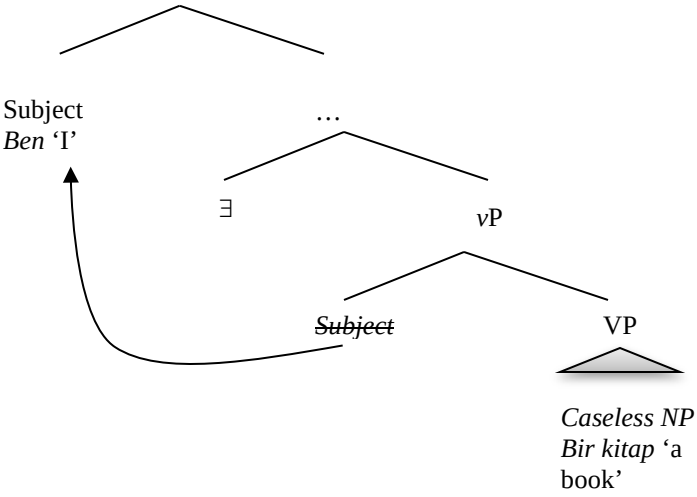
Aydemir's (2004) analysis, an adverb should be able to modify such a verbal predicate. However, this does not seem to be true. Contrary to the proposal by Aydemir (2004), the adverb *çabuk/hızlı* 'quickly/fast' in (101) cannot modify a bare noun + a verb unit, which makes the proposal inconsistent. This being considered, the ungrammaticality of (101) cannot be explained by the Noun Incorporation account. It should be noticed that the adverbs *çabuk* 'quickly' and *hızlı* 'fast' can be used as either an adverb or an adjective just like *kötü* 'bad' and *iyi* 'good'. In this respect, *çabuk* 'quickly' and *hızlı* 'fast' behave in the same way as *kötü* 'bad' and *iyi* 'good'; thus, I assume that the ungrammaticality of (101) is not due to a particular type of adverb selected here. Instead, what I hypothesize from the data (99) and (101) is that the predicate type in (99) (i.e. an accomplishment) is different from the predicate type (101) (i.e. an achievement). To put it another way, accomplishments and achievements are structurally different. We will investigate aspectual properties of accomplishments and achievements in detail and analyze the syntax of Aktionsart in Chapter 3.

2.7.2 Syntactic positions of case-marked objects and (low) adverbs: Kelepir (2001)

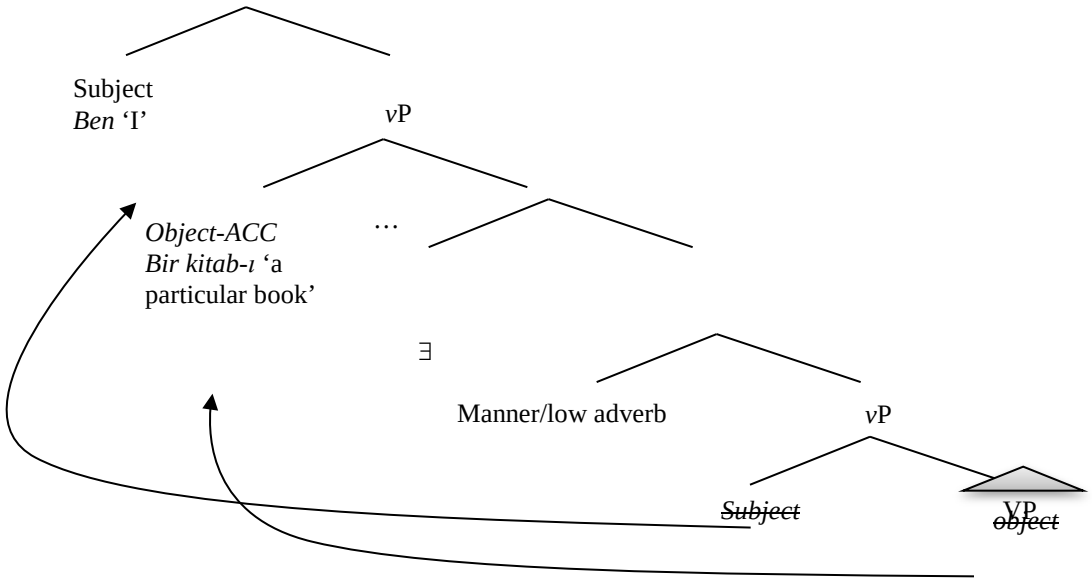
Kelepir (2001), following Diesing (1992), Kennelly (1994) and Zidani-Eroğlu (1997), claims that accusative-marked objects in Turkish are outside of VP while the non-case marked ones are VP-internal. We have seen a general picture of Turkish clause structure in the sections 2.1, 2.2, 2.3 and 2.4, in which we have also concluded that a case-marked object with a specific interpretation occurs in a structurally higher position than a non-case marked object. Yet, we have not identified the syntactic position of (low) adverbials. To answer the questions presented in 2.6.2.2 above, it is necessary to see where exactly nominal arguments and a low adverb occur in syntax. Kelepir (2001) provides relative syntactic positions for an accusative-case marked object and some adverbials, as shown in (102):

(102) Syntactic structures proposed by Kelepir (2001)

a. Ben bir kitap aldım.
I a/one book buy-PAST-1sg
'I bought a book.'



b. Ben bir kitab-ı aldım.
I a/one book-ACC buy-PAST-1sg
'I bought a (particular) book.'



As can be seen in (102a, b), Kelepir (2001) argues that the accusative-marked object occurs above the domain of existential closure (cf. Heim 1982), adopting Diesing's (1992) Mapping Hypothesis. In the Mapping Hypothesis, nominals within VP are mapped into the nuclear scope of a quantifier or

an operator, and are interpreted existentially whereas those outside VP are mapped into a restrictive clause, and are interpreted quantificationally. Following Diesing (1992), Kelepir proposes that while, as shown in (102a), the non-case marked object remains in VP, the accusative-marked object moves from VP to an adjunction position to *v*P and receives a presuppositional (or specific) interpretation, as illustrated in (102b). The subject in (102b) also moves to some higher position[48] in which it receives a definite interpretation. In Kelepir's structure in (102b), it is shown that a low adverb occurs in an adjunction position to *v*P. Now we need to examine whether or not a low adverb in fact occurs in the adjoined position to *v*P. Kelepir (2001) posits the location of a low adverb on the basis of examples like (103) and (104):

(103) a. ??Hasan *aceleyle* bir tavuk göğsü-nü yedi, çıktı.
Hasan in a hurry a chicken breast ACC eat-PAST, leave-PAST
'Hasan quickly ate chicken breast and left.'

b. Hasan bir tavuk göğsü-nü *aceleyle* yedi, çıktı.
Hasan a chicken breast-ACC in a hurry eat-PAST, leave-PAST
'Hasan quickly ate chicken breast and left.'

(104) a. Hasan *aceleyle* bir tavuk göğsü yedi, çıktı.
Hasan in a hurry a chicken breast eat-PAST, leave-PAST
'Hasan quickly ate chicken breast and left.'

b. *Hasan bir tavuk göğsü *aceleyle* yedi, çıktı.
Hasan a chicken breast in a hurry eat-PAST, leave-PAST
'Hasan quickly ate chicken breast and left.' (Kelepir 2001)

As shown in (103a), the adverb *aceleyle* 'in a hurry' cannot occur to the left of the accusative-marked object. The example (103b) shows that the accusative-marked object appears in a syntactically higher position than the adverb *aceleyle* 'in a hurry'. In (104a), Kelepir observes that *aceleyle* 'in a hurry' occurs to the left of the non-case marked object. As shown in (104b), the adverb cannot intervene between the non-case marked object and the verb, as we have already discussed in 2.1; this is predictable. Thus, Kelepir reaches the conclusion that a low/manner adverb occurs in a position

[48] As indicated in (98b), Kelepir does not mention the syntactic category that hosts the subject.

lower than an accusative-marked object, but in a position higher than a non-case marked object (a non-case marked *bir* NP, to be precise), positing a syntactic structure like (101) above. However, when the adverb *aceleyle* 'in a hurry' used in (104a) is replaced with other low adverbs such as *tamamen* 'completely' and *çabuk* 'quickly', the sentence is no longer grammatical. Compare (104a) with (105) below:

(105) a. *Hasan *tamamen* bir tavuk göğsü yedi, çıktı.
Hasan completely a chicken breast eat-PAST, leave-PAST
'Hasan completely ate a chicken breast and left.'

b. *Hasan *çabuk* bir tavuk göğsü yedi, çıktı.
Hasan quickly a chicken breast eat-PAST, leave-PAST
'Hasan quickly ate a chicken breast and left.'

If the adverb *aceleyle* 'in a hurry' in (104) was truly a low adverb, the low adverbs *tamamen* 'completely' and *çabuk* 'quickly', which are surely low adverbs, would be able to occur in (105a, b). The example (105), however, is ungrammatical. The ungrammaticality of (105) cannot be explained by Kelepir's (2001) assumption. One possible reason for this is that the adverb *aceleyle* 'in a hurry' potentially occurs syntactically higher than adverbs like *tamamen* 'completely' and *çabuk* 'quickly'. Although it is not easy to see the exact location of *aceleyle* 'in a hurry' on the surface, prosodic phrasing (which will be discussed in Chapter 4) suggests that *aceleyle* 'in a hurry' is in fact in a position higher than adverbs like *tamamen* 'completely' and *çabuk* 'quickly'. If so, the adverb *aceleyle* 'in a hurry' should not be regarded as a low adverb. Consider (106):

(106) a. ??Hasan *aceleyle* bir tavuk göğsü-nü yedi, çıktı.
Hasan in a hurry a chicken breast-ACC eat-PAST, leave-PAST
'Hasan quickly ate a chicken breast and left.'

b. *Hasan *çabuk* bir tavuk göğsü-nü yedi, çıktı.
Hasan quickly a chicken breast-ACC eat-PAST, leave-PAST
'Hasan quickly ate a chicken breast and left.'

As can be seen in (106), there is a difference in grammatical correctness between (106a)[49] and (106b). The difference is subtle; however, it is possible to say that this is due to the fact that syntactic positions for *aceleyle* 'in a hurry' and the one for *çabuk* 'quickly' are not exactly the same. If *aceleyle* 'in a hurry' and *çabuk* 'quickly' occur in syntactically different positions, the postulation that a manner/low adverb such as *aceleyle* 'in a hurry' is in an adjoined position to *v*P, as in (106b), becomes problematic, and its syntactic position in (106b) turns out to be inaccurate.

The next thing to be considered is, as we have seen in (106b), that Kelepir assumes that the accusative-marked object and a manner adverb occur in adjoined positions to *v*P – multiple specifiers of *v*P. It will be shown in Chapters 3 and 4 that multiple specifiers are not allowed at the PF-level from the viewpoint of Antisymmetry. Since the syntactic position of a low adverb cannot correctly be predicted under Kelepir's (2001) account, it is concluded here that the syntactic structure shown in (102) does not well represent Turkish clausal structure.

In the next section 2.8, I will go over the theoretical framework I am adopting in this dissertation.

2.8 Syntactic framework: Antisymmetry and PF constraints

The syntactic account I base my proposal on is Kayne's (1994, 2011) Antisymmetric view of syntax,[50] where the Spec-Head-Complement order is universal, and asymmetric c-command relations determine the surface word order (i.e. the Linear Correspondence Axiom (LCA)):

(107) LINEAR CORRESPONDENCE AXIOM

d(*A*) is a linear ordering of *T* (Kayne 1994: 6), where

i. *T* is the set of terminals,

[49] Kelepir (2001) marks the example (103a) with "??" (which is normally considered ungrammatical); however, the informant I consulted with said that (103a) sounds acceptable (and it sounds much better than (103b)). This also indicates that the adverb *aceleyle* 'in a hurry' can occur in a different (i.e. higher) syntactic position than the adverb *çabuk* 'quickly'.

[50] I adopt a weak version of Antisymmetry (Dynamic Antisymmetry) (Moro 2000), as will be discussed later in this section.

ii. *A* is the set of ordered pairs of non-terminals <X, Y>, such that X asymmetrically c-commands Y,
iii. d(*A*) is the set of terminals dominated by *A*.

The description (107) below is expressed more specifically:

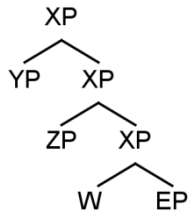
(108) Let X, Y be non-terminals and *x*, *y* terminals such that X dominates *x* and Y dominates *y*.
Then if X asymmetrically c-commands Y, *x* precedes *y* (Kayne 1994: 33).

The core idea of LCA is the rigid correspondence between asymmetric c-command and precedence. On this view, languages with OV orders can result from leftward movement although this type of movement does not have to take place.[51,52] The following is Kayne's (1994) definition of c-command:

(109) X c-commands Y iff *X and Y are categories* and X excludes Y and every category that dominates X dominates Y (Kayne 1994: 18).

Now, based on the definition (110), consider the following structure relevant to the current study:

(110)



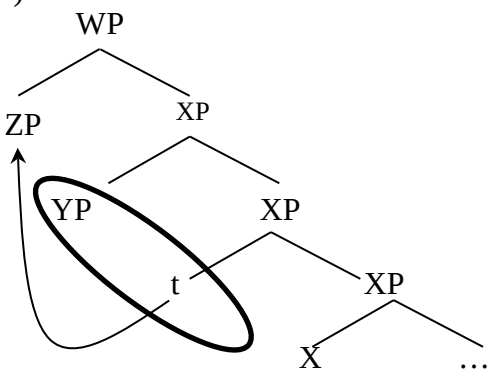
In Kayne's theory, multiple specifiers or adjuncts are not possible due to a violation of the LCA. In the structure (110), XP has two specifiers – YP and ZP. There is no asymmetric c-command relation between YP and ZP. W is dominated by XP while YP and ZP are not. The problem now concerns the relation between YP and ZP. Neither of them is dominated by XP since the second lower XP is a segment, not a category. Now let us consider the heads of YP and ZP. Y is

[51] OV orders do not have to obtain via movement. I assume that the internal argument of V is base-generated in SpecVP in Turkish. In this regard, the OV order in Turkish is *not* derived via leftward movement. Independently, Zwart (2002) discusses the behavior of postverbal elements in Turkish, and points out a piece of evidence that Turkish phrase structure follows Antisymmetry (Kayne 1994).
[52] Kayne (2011) notes that VO orders does not necessarily have to correspond to head-Complement orders (see also fn. 51). While there could be languages where an object is generated in the complement position of V, it should be reminded that it is not always the case (see e.g. Larson (1988) for English).

asymmetrically c-commanded by ZP, and Z is asymmetrically c-commanded by YP. What we obtain here is that Y precedes Z, and at the same time, Z precedes Y. These two orderings contradict the linearization statements (see (107) and (108)). Therefore, no linear order is established between YP and ZP, and the derivation crashes. As we see in (110), since multiple specifiers cannot establish a relationship of asymmetrical c-command, no linear order can be established among them. In essence, symmetric structures should not make it to PF as they cannot be linearized at that level. Here, I follow Kayne (1994) in that symmetric structures are illicit; however, I differ from him in that I assume that LCA is a PF constraint, following Moro's Dynamic Antisymmetry (2000). That is, multiple specifiers would be available throughout the syntactic derivation; however, such structures in which multiple specifiers are occupied by PF-visible materials are prohibited since they cannot be linearly ordered (at PF).

Now, assuming that LCA is a PF constraint, let us see how an ill-formed structure like (110) can be saved by eliminating symmetry. Consider the structure (111):

(111)



According to Moro (2000), symmetric structures such as (111) can be eliminated by movement.[53] As can be seen, multiple specifiers are created in (111); however, (111) does not violate LCA. Thus, it is grammatical. Suppose that ZP (or any one of the specifiers of XP) moves

[53] Moro (2000) claims that symmetric structures trigger movement though he also indicates that other reasons for movement are available. My assumption here is that movement for *any* reasons (e.g. EPP and Case) can save symmetric structures.

to some higher position, leaving a trace behind. Traces do not need to be linearized since they have no PF content. If we assume that symmetry is ruled out by linearization requirements at the syntax-PF interface, it then follows that symmetric structures must be eliminated at the point at which structure is sent off to the phonological component.

2.8.1 Some PF constraints: (Obligatory) Control constructions

My crucial assumption in this dissertation is that multiple specifiers cannot be filled by overt PF-materials since they cannot be linearly ordered. Let us take a look at some examples here. The examples presented in this section also prove this claim. Recall the ungrammatical sentence shown in (112):

(112) *[$_{VP}$ çabuk [$_{VP}$ adam [$_{V'}$ gel-di]]]
quickly man arrive-PAST
'A man arrived quickly.'

As I have indicated above (and will discuss in the following chapters), I assume that the internal argument of V originates in SpecVP. According to our analysis, the example (112) is ungrammatical since PF-visible elements (i.e. the adverb *çabuk* 'quickly' and the indefinite *adam* 'man') occur in multiple specifiers of VP. Once the bare noun moves out of VP, the sentence becomes well-formed, as in (113):

(113) [$_{TP}$ Adam$_i$ … [$_{VP}$ çabuk [$_{VP}$ t$_i$ [$_{V'}$ gel-di]]]]
man quickly arrive-PAST
'The man arrived quickly.'

In (113), since the trace of movement has no PF content, it does not need to be linearized. In this case, *adam* 'man' has to be definite/specific.

Now the question is whether there is some way to improve a sentence like (113) where both a bare indefinite subject and an adverb occur in multiple specifiers. In other words, does the sentence become grammatical (or better) if one of the specifiers in (113) is PF-invisible? One way to find the answer to this question is to examine the control construction. Consider (114):

(114) ?[$_{VP}$ Adam$_i$ [$_{V'}$ [$_{CP}$ …[$_{VP}$ çabuk [$_{VP}$ PRO$_i$ [$_{V'}$ gel-mek]]]] iste-di]]
man quickly arrive-INF want-PAST
'A man wanted to quickly arrive.'

In (114), both a low adverb *çabuk* 'quickly' and subject control PRO occur in multiple specifiers of VP of the embedded clause. Under the PF-based approach, PF-invisible materials are irrelevant to linearization. If the analysis presented here is on the right track, then, the example (114) with an indefinite subject should be acceptable since PRO is PF-invisible. Now, the sentence (114) containing the indefinite subject *adam* 'man' is mildly deviant; however, it is comparatively much more acceptable than (112), in which the single clause available contains the indefinite/non-specific subject. I take this as good evidence that avoiding a symmetric structure at PF can ameliorate a sentence like (112).

In sum, I assume here that LCA holds only at PF. Multiple specifiers are symmetric, which cannot be linearized – therefore, symmetry should be removed by the time PF is reached.

Having established the basic syntactic framework, we are now ready to move on to the review of the syntax of aspect in Chapter 3.

2.9 Summary: Towards the analysis

In this chapter, first, I have looked at the basic sentence structures in Turkish and reviewed word order facts (such as nominal positions and the noun incorporation approach) discussed in the literature. In this observation, it is found that a definite/specific argument appears syntactically higher than an indefinite/non-specific argument. As discussed in previous research, I assume that a definite/specific argument that originated in its base-position moves to a higher position (for EPP or case reasons) while an indefinite/non-specific argument remains within *v*P/VP (or the non-presuppositional domain).

Next, I have reviewed the previous accounts: Noun Incorporation analyses (Kornfilt 2003; Öztürk 2004, 2005 among others)). The previous accounts neither present the exact positions of nominal arguments in syntax nor the position of (low) adverbs. We have further seen Aydemir (2004) and Kelepir (2001) where arguments are presented regarding the syntactic positions of Turkish nominals as well as adverbials. Neither of these accounts has provided sufficient evidence explaining certain facts about low adverb modification and where in syntax nominal arguments and (low) adverbs occur. Thus, it is necessary to re-examine sentences containing a bare internal object and a low adverb. We have observed that the (un)grammaticality of a sentence that contains a bare object (as well as a caseless object with a number/quantity expression) and a low adverb depends on their predicate type, which can be aspectually distinguished.

In the next chapter, Chapter 3, I will account for the legitimacy of the (weak) view of Antisymmetry and the positions of nominal arguments and adverbs in Turkish through the discussion of the syntax of Aspect. Adopting the Antisymmetric view of syntax, I will examine the syntactic structures of dynamic predicates (i.e. accomplishments/activities and achievements) and show that accomplishments are structurally different from achievements. More specifically, I will claim that an accomplishment has an aspectual projection (AspP) on its structure while an achievement does not. Further, unlike what has been held in previous literature, I assume that the internal argument of a verb originates in the specifier position (cf. Larson 1988), not in the complement position. Due to the structural difference between accomplishments (and activities) and achievements, I suggest that the availability of a position of low adverbs also differs, depending on the type of predicate.

CHAPTER 3: SYNTAX OF ASPECT

This chapter discusses the syntax of aspect (Aktionsart). Assuming that syntactic structures are different depending on their aspectual properties (e.g. Vendler 1967), I review the syntax of event structure (Ramchand 2008). Then, building on the basic notion of Ramchand's (2008) *ProcessP*, I propose the syntactic structures of accomplishments and achievements in Turkish, showing that achievements are structurally different from accomplishments.

3.1 Syntax of Aspect

3.1.1 Aspectual classification of verbs

As I indicated in Chapter 3, my hypothesis is that syntactic positions of bare objects in Turkish can be identified by looking at aspectual (Aktionsart) properties. Therefore, as a first step, I examine how two structures can be distinguished from each other based on Aktionsart, complying with Antisymmetric syntax.

As is well known, predicates can be classified into four basic types (i.e. *achievements*, *activities*, *accomplishments*, and *states*) (Vendler 1967; Dowty 1979):

(1) a. **ACHIEVEMENT (has a terminus but happens instantaneously (with little or no duration)**: *die, arrive, recognize, stop, finish, reach…*
b. **ACCOMPLISHMENT (has a terminus and duration)**: *eat an apple, read a book, build a house, paint a picture, draw a circle, make a chair…*
c. **ACTIVITY (ongoing in time)**: *run, dance, swim, drive a car, push a cart…*
d. **STATE (ongoing in time)**: *know, have, believe, like…*

In this dissertation, we will mainly focus on dynamic predicates – achievements, accomplishments and activities.[54] According to Vendler (1967), predicates like *arrive* and *reach* are *achievements*, which have a terminus but happen instantaneously (with no or little duration), while predicates like *read a book* and *eat an apple* are *accomplishments*, which also have a

[54] Though this thesis basically focuses on the accomplishment-achievement dichotomy, I will also talk about statives later in this chapter (3.3.4).

terminus and some duration. It is generally accepted that achievement and accomplishment VPs are telic and activity (and state) VPs are atelic. To diagnose the telicity[55] of VPs, temporal adverbials such as *for x time* and *in x time* are often utilized: telic predicates permit the time-frame adverbial *in x time* (but not *for x time*) while atelic predicates permit the durational adverbial *for x time* (but not *in x time*), as shown in (2):

(2) a. Mary reached the summit in an hour/ *for an hour. (Achievement)
b. John read a book in an hour/ *for an hour. (Accomplishment)
c. Sally pushed the cart *in an hour/ for an hour. (Activity)

Vendler's classification also applies to Turkish. Consider the behavior of temporal modifiers in Turkish: "*x-te*" (*in*-adverbial) and "*x boyunca*" (*for*-adverbial):

(3) a. Mehmet zirve-ye bir saat-te/ *bir saat boyunca ulaş-tı. (Achievement)
Mehmet summit-to one hour-in/ one hour for reach-PAST
'Mehmet reached the summit in an hour/ *for an hour.'

b. Murat kitab-ı bir saat-te/ *bir saat boyunca oku-du. (Accomplishment)
Murat book-ACC one hour-in/ one hour for read-PAST
'Murat read the book in an hour/ *for an hour.'

c. Ali araba-yı bir saat-te/ *bir saat boyunca it-ti. (Activity)
Ali cart-ACC one hour-in/ one hour for push-PAST
'Ali push the cart *in an hour/ for an hour.'

In (3a) and (3b), the predicates are both telic and compatible with the adverbial *x-te* '*in x time*', which locates the endpoint of the event. In (3c), the activity is atelic; thus, it is compatible with the durational adverbial '*for x time*'.

In (3a), the achievement sentence with an adverbial '*in x time*' indicates that the event happened at the end of the time period specified. This is because an achievement event is punctual and consists only of an endpoint. Therefore, '*in x time*' in (3a) can be paraphrased as '*after x time*' (Piñón 1997), as shown in (4):

[55] Though aspectual classification proposed by Vendler (1967) is a property of verbs, I assume that a verb by itself does not determine the telicity of an event, but telicity is a property of predicates (see Rothstein 2004).

(4) (=(3a)) Mehmet zirve-ye bir saat sonra ulaş-tı. (Achievement)
Mehmet summit-to one hour after reach-PAST
'Mehmet reached the summit after an hour.'

Unlike achievements, '*in x time*' cannot be interpreted as '*after x time*' in accomplishments. In accomplishments like (3b), as repeated in (5) below, a sentence with '*in x time*' shows that the event took place during the time specified:

(5) (=(3b)) Murat kitab-ı bir saat-te (≠ bir saat sonra) oku-du. (Accomplishment)
Murat book-ACC one hour-in (one hour after) read-PAST
'Murat read the book in an hour.'
→NOT synonymous with *John read the book <u>after</u> an hour*.

It should be pointed out that accomplishment VPs can be atelic if their internal argument is a bare noun phrase, as shown in (6):

(6) Murat *bir saat-te/ bir saat boyunca kitap oku-du. (atelic)
Murat one hour-in/ one hour for book read-PAST
'Murat read books/a book *in an hour/ for an hour.'

(7) Murat bir saat-te/ *bir saat boyunca bir / üç /çok kitap oku-du. (telic)
Murat one hour-in/ one hour for one /three/many book read-PAST
'Murat read a book/three books/many books in an hour/ *for an hour.

Although an accomplishment is a process that has a natural endpoint, the process can be extended, consisting of transitions. It has been assumed that accomplishments are events of gradual change from ¬ϕ to ϕ (e.g. Dowty 1979; Rothstein 2004). Then, it is reasonable to suppose that an accomplishment has an activity subevent and thus it allows a durational modifier under certain circumstances. While a direct object is definite/specific, marked with an overt accusative marker (see (3b) and (5)) or modified by some expression of quantity (see (7)), an accomplishment with a bare internal object shows a non-delimited event (see (6)). This type of contrast found in accomplishments, however, is observed neither in achievements (8) nor in activities (9):

(8) Achievement
a. Murat bir saat-te/ *bir saat boyunca cam kır-du.
Murat one hour-in/ one hour for glass break-PAST
'Murat broke glasses/a glass in an hour/ *for an hour.

b. Murat cam-ı bir saat-te/ *bir saat boyunca kır-du.
Murat glass-ACC one hour-in/ one hour for break-PAST
'Murat broke glasses/a glass in an hour/ *for an hour.

c. Murat bir saat-te/ *bir saat boyunca bir / üç /çok cam kır-du.
Murat one hour-in/ one hour for one /three/many glass break-PAST
'Murat broke a glass/three glasses/many glasses in an hour/ *for an hour.

(9) Activity
a. Mehmet *bir saat-te/bir saat boyunca araba it-ti.
Mehmet one hour-in/ one hour for cart push-PAST
'Mehmet push carts *in an hour/ for an hour.'

b. Mehmet araba-yı *bir saat-te/bir saat boyunca it-ti.
Mehmet cart-ACC one hour-in/ one hour for push-PAST
'Mehmet push the cart *in an hour/ for an hour.'

c. Mehmet *bir saat-te/bir saat boyunca bir/ üç /çok araba it-ti.
Mehmet one hour-in/ one hour for one /three/many cart push-PAST
'Mehmet push a cart/ three carts/many carts *in an hour/ for an hour.'

Irrespective of specificity, (in)definiteness or the presence of a case marker or expression of quantity, achievements consistently reject *for*-adverbials,[56] as in (8), and activities reject *in*-adverbials, as in (9).

We have seen some aspectual differences among dynamic predicates in Turkish.[57] The next question to address is how syntactic structures of each predicate (or VP) can be articulated based on such verbal Aktionsart differences. I will discuss possible syntactic structures which apply to Turkish in the following subsections.

3.1.2 Event-structure syntax: Overview

As I have indicated in Chapter 3, I suggest that in Turkish accomplishments are structurally different from achievements since only achievements (punctual events) with a bare internal

[56] I exclude the iterative reading of achievements such as 'Tourists arrived for years' (cf. Rothstein 2004), which is also found in Turkish. The unboundedness of this type of sentence does not come from the homogeneity of the event, but I rather view it as an independent phenomenon. For the detailed semantics/pragmatics-based analysis, see e.g. Landman & Rothstein (2008).
[57] We will look at more data from Turkish including transitives and intransitives in Section 3.2.

argument consistently reject low adverb modification. Before moving on to the discussion of the syntactic location of low adverbs, I will begin by reviewing the traditional view of the difference between accomplishments and achievements (Rothstein 2004). I will, then, go over the event structure syntax proposed by Ramchand (2008, 2011), and finally, propose possible syntactic structures for dynamic predicates.

The structural difference between accomplishments and achievements has been proposed from the perspective of lexical/logical semantics. Assuming Dowty's (1979) seminal work of aspectual classes, Rothstein (2004) reformulates the basic structure of dynamic predicates as follows:

(10) a. Activities: $\lambda e.(DO(P))(e)$

b. Achievements: $\lambda e.(BECOME(P))(e)$

c. Accomplishments: $\lambda e.\exists e_1 \exists\ e_2[e =^{S} (e_1 \cup e_2) \wedge (DO(P))(e_1) \wedge (BECOME(P'))(e_2) \wedge$ Cul $(e)=e_2]$

As in (13c),[58] Rothstein (2004) claims that an accomplishment is associated with an activity event and a BECOME event (or a gradual change). A BECOME event, which expresses a result state, determines the endpoint of an accomplishment event. Under this view, an accomplishment structure is more complex than an achievement and activity. This is essentially what I am adopting here. In the next subsection 3.1.3, I will discuss and propose the syntactic structure, following the idea that an accomplishment is a complex event.

Now, what needs to be addressed here is how predicate decomposition represented in semantics can be mapped onto syntax. Importantly, Ramchand (2008, 2011) has developed the

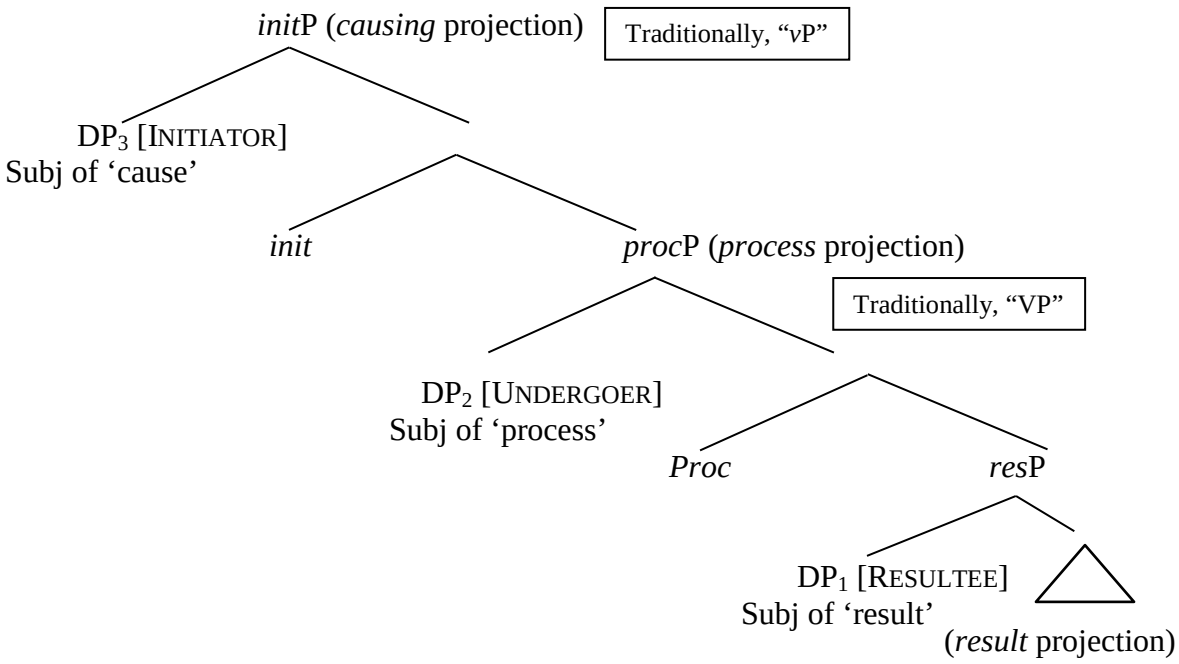
[58] Cul = culmination (= the telic point at which the event is ended or completed.) The superscript ^{S} represents the summing operation which forms a singular entity. As indicated above, Rothstein (2004) assumes that an accomplishment is a complex event predicate, which is formed by summing an activity and a BECOME event which has a culmination (or telic) point.

syntactic event decomposition and shows argument relations and syntactic configuration tied to verbal Aktionsart. In what follows, I will review Ramchand's (2008) event-structure syntax.

Ramchand assumes that a thematic element occurs in a specifier position,[59] following Larson's insight, as we shall see. This is what I pursue: in Turkish, the internal argument of a verb should occur in a *specifier* position.

The idea that internal arguments (i.e. themes) originate in specifier positions of VPs was first proposed by Larson (1988), taking up Chomsky (1955/1975), in the discussion of ditransitive (or double object) constructions, which crucially captures the syntactic asymmetries. Ramchand (2008, 2011) proposes that syntactic structure has three subevents (causation, process, and result) presented as their own syntactic projections, as illustrated in (11):

(11) Ramchand's (2008, 2011) EVENT STRUCTURE SYNTAX (THE FIRST-PHASE SYNTACTIC STRUCTURE)

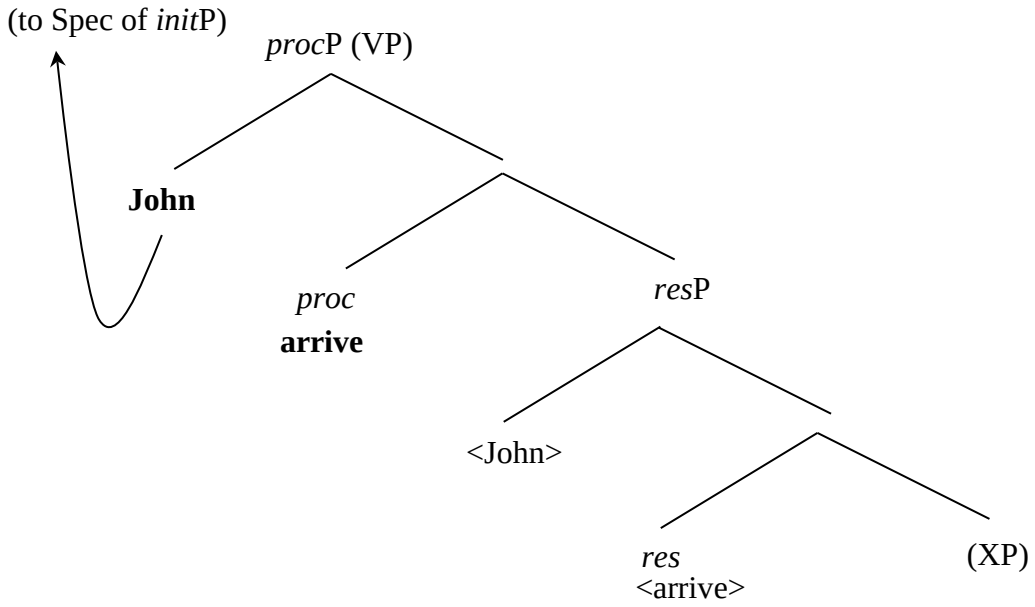


[59] However, not every internal argument originates in SpecVP in Ramchand's system. A PATH object (the object of an accomplishment) is, for example, generated in the complement position of V, which will be discussed later in this section.

As shown in (11), Ramchand does not use traditional labels such as *v*P and VP; *init(iation)*P roughly corresponds to *v*P[60] in the sense of Chomsky (1995) and *proc(ess)*P corresponds to VP. Therefore, *init*P, similarly to *v*P, introduces an external argument and it is absent in unaccusatives. The process projection, *proc*P, denotes dynamicity/transitional process/change.[61] The lowest projection, *res(ult)*P, expresses the result state of the event, which makes a sentence telic. As can be seen in the syntactic tree (11), each specifier position is filled with an event participant (INITIATOR, UNDERGOER and RESULTEE), and its relation to the event is established via a subject-predicate relationship.

Let us now take a close look at the structure of achievements and accomplishments proposed under this system. The structure (12) represents an accomplishment and (13) represents an achievement:

(12) ACHIEVEMENT – *John arrived.*



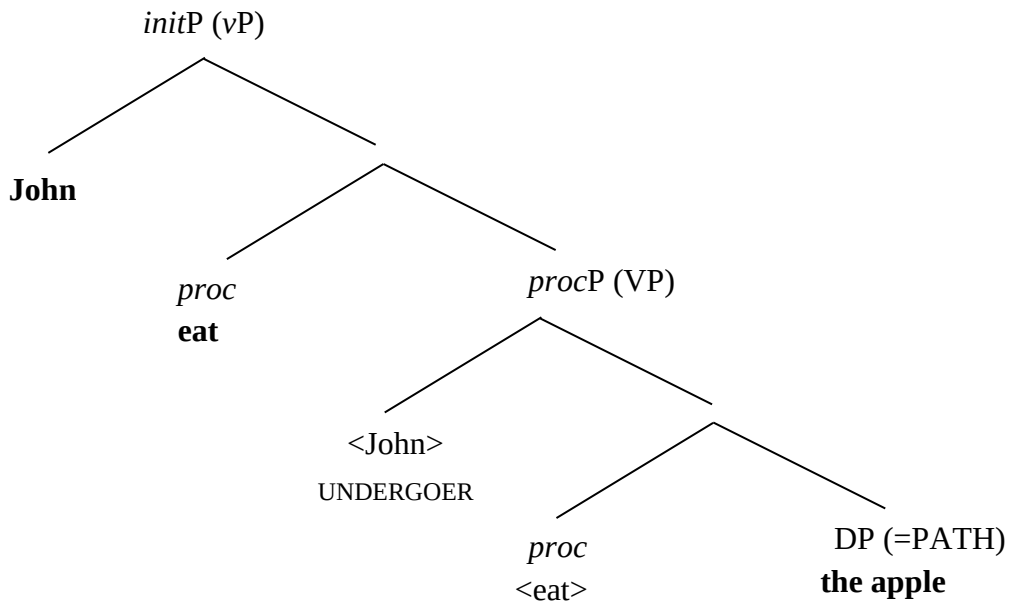
[60] *init*P is not exactly the same as *v*P in Chomsky (1995) in Ramchand's system. Although *intit*P licenses an external argument, an external argument can be generated in the lower clause (e.g. Spec of *proc*P) as an UNDERGOER and then move up to Spec of *init*P.
[61] *Proc*P does not project in stative predicates.

In achievements, a verb takes *res*P as its complement, as shown in (12). An internal argument originates in the specifier of *res*P, expressing the final state. Ramchand follows the idea that lexical items must carry a certain bundle of categorial features that allow specific syntactic structures to be configured (e.g. *proc*P on the top of *res*P). And a lexical item (a verb in this case) containing such categorical features (i.e. *init*, *proc* and *res*) has selectional properties to build a particular syntactic structure and specifies a list of category features in its lexical entry. Let us take a look at a concrete example: Take (12) above; the verb *arrive* here is specified as [*init*, *proc*, *res*] to license a structure illustrated in (12).[62] Here, Ramchand's strong assumption is that a single item can carry more than one category label; it can be associated with different syntactic heads, but the order of combination must be specified by the lexical item (e.g. a 'thematic hierarchy' discussed in Larson (1988)). In (12), the verb *arrive* carries two categorical features. Assuming the copy theory of movement, Ramchand claims that the moved item leaves its copy behind, creating an A-chain.[63] Therefore, the angle-bracketed items in (12) (<John> and <arrive>) can further appear in the specifier of *proc*P and in the *proc* head, respectively. What is important here is that the internal argument of the verb *arrive* must move up to the specifier of *proc*P (and it further moves to the higher specifier position (i.e. the specifier of *init*P) in this system); that is, the item filling in the specifier of *res*P must be identical to the one in *proc*P and the one in *init*P as undergoing change. This specific type of structure containing *init*P, *proc*P and *res*P (where all the three Specs are filled by the same DP) expresses a punctual event, i.e. an achievement.

[62] For expository purposes, I omit *init*P in the syntactic tree (12). Ramchand argues that the internal argument of *arrive* 'initiates' its own transition to a final state (or location) and it therefore moves to Spec of *init*P.
[63] Ramchand implies that head raising triggers NP movement (cf. Larson 1988) though she does not clearly explain what exactly triggers head movement.

An accomplishment, on the other hand, does not have *res*P in its structure. Thus, a lexical entry for an accomplishment is [*init*, *proc*], which is different from an achievement. In Ramchand's system, the internal argument of an accomplishment is a PATH that occurs in the complement position of V. As shown in the tree representation (13), the internal argument of an accomplishment is not an UNDERGOER object, but a PATH object:

(13) ACCOMPLISHMENT – *John ate the apple*.



As can be seen in (13), an agentive subject *John* as an UNDERGOER experiencing change/process is base-generated in the specifier of *proc*P (and further moves to Spec of *init*P). A PATH object appears in the complement position of *Proc*P. Here, DP *the apple* in (13) is not regarded as an affected object,[64] but functions as an event modifier that determines the *path* of

[64] The notion of affectedness used by Ramchand is different from what is often discussed in the literature. For instance, Rothstein (2001) mentions that the object of an accomplishment (i.e. an incremental argument) is affected, but the object of an activity is not. Ramchand, on the other hand, claims that only objects experiencing transitions (in the specifier position) are considered affected themes – i.e. objects of achievements and some processes/activities, but PATH objects (i.e. objects of accomplishments) are not. The internal argument of an activity shown in (i) and (ii) below is an affected object in Ramchand's sense:

(i) John pushed *the cart*.
(ii) Mary drove *the car*.

Traditionally, *the cart* in (i) and *the car* in (ii) have not been regarded as affected themes (cf. Dowty 1991; Rothstein 2001, 2004); however, Ramchand argues that *the cart* and *the car* in (i) and (ii) above are going through the

process/change. This abstract sense of 'PATH' is attributed to a property that can contribute to some (incremental) measure on an event, as discussed in the argument-event homomorphism model (Krifka 1998; Wechsler 2005). That is, the part structure of the object corresponds to the part structure of the event – the event and the PATH must be homomorphic. Ramchand claims that a PATH object in accomplishments is similar to PATHs in activities indicated in (14):

(14) a. John walked [the trail $_{PATH}$].
b. Mary ran [along the beach $_{PATH}$].
c. Mary ran [to the beach $_{PATH}$]

In (14), PATHs do not go through change; rather, the event and the path are coextensive. Like Wechsler (2005, p. 13) states, the event should start when a theme object is at the start of the path and end when the object reaches the end of the path. A PP path such as *to the beach* in (14c), for example, can give rise to a telic interpretation with a motion verb (an activity) since the path/scale *to the beach* has a definite endpoint. Likewise, accomplishments can have either a telic or atelic interpretation, as shown in the English example (15), because a 'measured' PATH such as a quantized object contributes to determining the measure of the event:

(15) a. John ate apples for an hour/*in an hour. (atelic)
b. John ate an apple/two apples/some apples *for an hour/in an hour. (telic)

Since parts of the event correspond to parts of the material extent, the difference between (18a) and (15b) can be observed: (15a) is atelic because the amount of apples is unbounded/indefinite while (15b) is telic because the amount of apples is bounded/definite. Now, what Ramchand suggests here is that this phenomenon (i.e. the telicity effect) found in accomplishments like (15) is *optional* since adding a path to a sentence makes an interpretation different; telicity is not determined by a particular syntactic configuration in such a case. Ramchand argues that the telic

transitional process or undergoing a change (of location) and these themes as UNDERGOERs occupy the specifier position of V.

interpretation of accomplishments is a contextual effect that comes from real world knowledge.[65] Achievements, on the other hand, are *obligatorily* telic, and *res*P must always be present in syntax (see (13)). Therefore, Ramchand's claim is that telicity is syntactically determined via the presence of *res*P in achievements while it is not in accomplishments. A question is why under Ramchand's system the internal argument of an accomplishment must be a PATH object that occurs in the complement position, not in the specifier position. One of the claims made by Ramchand on syntactic grounds is that *res*P cannot occur when a PATH object occurs in a sentence. Since *res*P and a PATH DP/PP are assumed to occur in the complement position of V, they will compete for the single complement position if they are both present. To see this, Ramchand uses English verbs like *paint*, presenting the two different syntactic structures. First, consider (16):

(16) a. John painted a picture (from memory). → DP *a picture* = PATH
b. John painted a wall (with beautiful designs). → DP *a wall* = UNDERGOER

Ramchand points out that the entailments in (16a) and (16b) are different, and that this difference reflects the syntactic structure.[66] Let us now consider (17) and (18) below. As shown in (17) and (18), Ramchand proposes two different structures for a verb such as *paint*:[67]

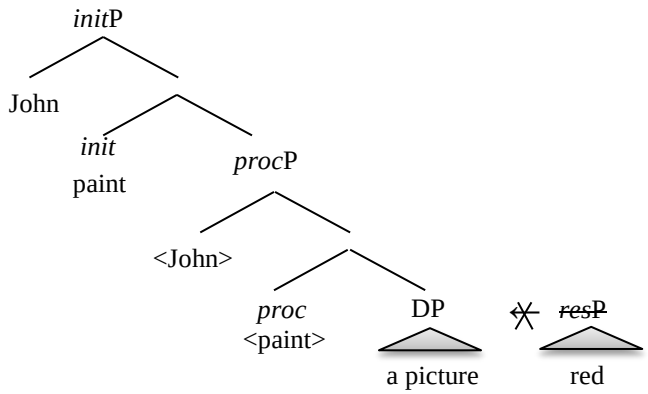
[65] See also Hay, Kennedy and Levin (1999).
[66] In Turkish (unlike English), two *different* verbs are used to express 'to paint a picture' and 'to paint a wall.'
[67] Ramchand shows that *bake*, just like *paint*, also has two different readings (As for Turkish, two different lexical verbs are used as with the case of the verb *paint*):

(i) a. Mary baked the cake (from scratch) (in two hours). → DP *the cake*=PATH (a creation (or completive) reading)
b. Mary baked the potato (for two hours). → DP *the potato*=UNDERGOER (a process (or change) reading; Ramchand claims that this is similar to the activity "Mary pushed the cart (for two hours).")

Though the same verb appears, the example (ia) is telic while (ib) is atelic. Ramchand again points out the optionality of the telic interpretation in (i), arguing that the telicity in an accomplishment is not determined by a functional projection like *res*P; if resP always appears, telicity would not be optional but obligatory (like an achievement). However, I challenge this view; a structure with *res*P does not have to be telic, which will be discussed shortly.

(17) a. *John painted a picture red.

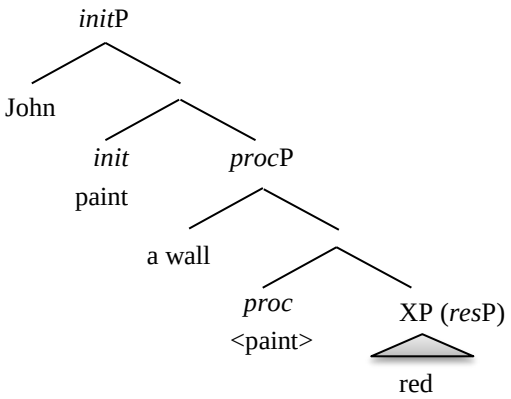
b.



The example (17) shows a creation event in which a picture comes into existence. According to Ramchand, this process is not a change; rather, the process of painting defines the creation event by bringing a picture into existence. In this case, the internal argument *a picture* is a PATH DP which occurs in the complement position of a verb (*proc*).

(18) a. John painted a wall red.

b.



As opposed to (17), the example (18) expresses a change that the internal argument *a wall* (that already exists) undergoes; thus, the object *a wall* is an UNDERGOER and occupies the specifier of *proc*P. In the case of (18b), the complement position of a verb (*proc*) is available for a resultative phrase to occupy since nothing competes with *res*P for the single complement position. In sum, Ramchand argues that *res*P needs not be expressed by an accomplishment VP

since telicity is optional in accomplishments. It should be remembered that this is different from what has traditionally been suggested in the literature.

As discussed above, the standard analysis has shown that an accomplishment is a complex event and can be decomposed into an activity event and a (change of state) BECOME event, which are incrementally linked (e.g. Dowty 1979; Rothstein 2004 for English; Hasegawa 1998 for Japanese). In contrast, Ramchand attempts to show that an achievement structure has *res*P while an accomplishment structure does not (cf. Kennedy and Levin 2002). Therefore, in Ramchand's system, accomplishments have simpler structures than achievements. In my proposal, I follow the idea of Ramchand's achievement construction in which a verb takes a resultative phrase as its complement. However, I argue that an accomplishment also has a resultative phrase. And an accomplishment is more complex than an achievement structure, which follows the standard analysis (e.g. Dowty 1979; Rothstein 2004) in this regard. My specific claim about syntactic structures is that accomplishment constructions have an aspectual projection, Aspect Phrase (AspP), on top of VP, while achievements do not. In the following subsections, building on Ramchand's definition of *proc*P, with slight modifications, I propose the syntactic structures of accomplishments and achievements. In 3.1.3, I discuss the need for AspP in syntax. In 3.1.4, I show that achievements and accomplishments both have a resultative secondary predicate in their structure.

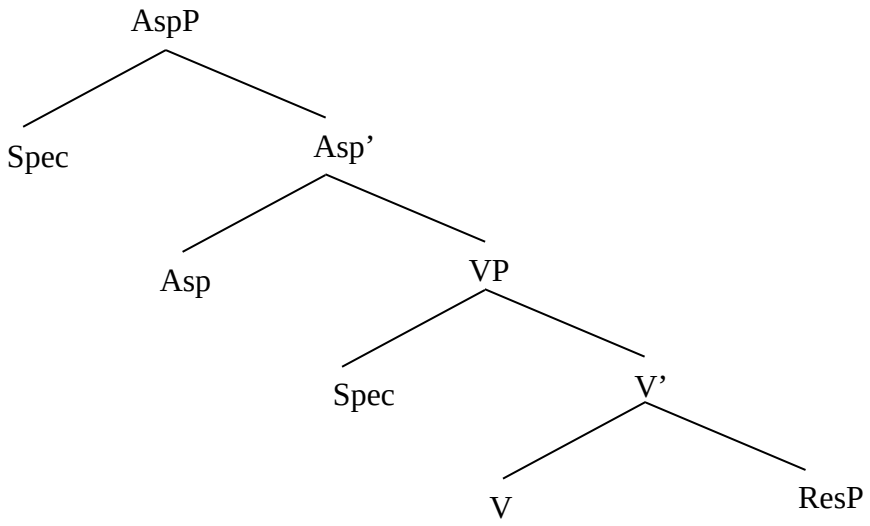
3.1.3 Aspect Phrase (AspP)

Ramchand's system demonstrates that the process projection *proc*P appears in *every* dynamic predicate (i.e. accomplishments, activities and achievements). Ramchand argues that *proc*P sufficiently provides verbal dynamicity regardless of the type of (dynamic) predicates. This indicates

that *proc*P does not imply duration.[68] However, we saw the clear difference between achievements and accomplishments based on Turkish data: (*i*) achievements systematically reject durational modifiers, and (*ii*) only achievements with a bare internal argument never allow low adverb modification. Thus, I assume that accomplishments should structurally be distinguished from achievements.

The Aspect projection (AspP) I am proposing for Turkish appears right above VP as an extended projection of the lexical verb, as represented in (19). The structure (19) illustrates an accomplishment:

(19) The proposed structure (below *v*P) "Accomplishment": the case of Turkish

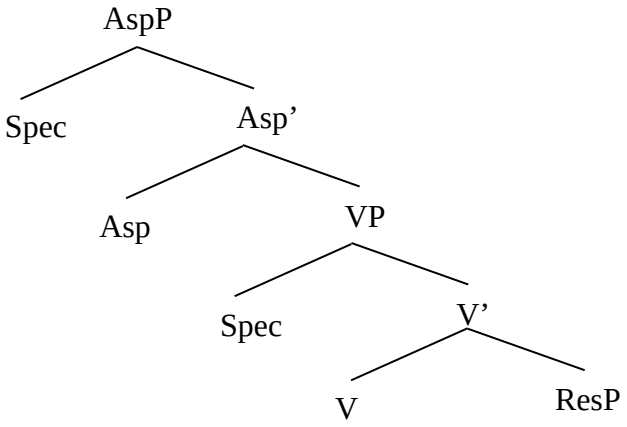


Unlike Ramchand's syntactic structure, I keep the traditional label VP, but on top of it, AspP projects. AspP expresses a process that is extended over time. Notice that there is an apparent connection between AspP (in the current study) and Ramchand's *proc*P; however, the two should not be conflated: Ramchand's *proc*P signals dynamicity (i.e. the stative/dynamic distinction) whereas AspP I propose here signals a process that is extended over time (i.e. durativity). On this

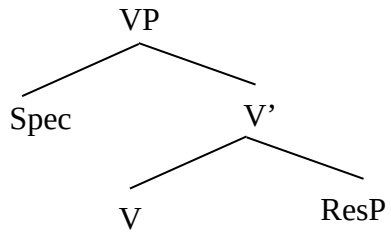
[68] This is also pointed out by Ramchand. She suggests the possibility that the *proc* head has some flavor like [±duration].

view, AspP projects whenever an (extended) event involves the temporal duration (including gradual changes that have an indefinite number of transitions). Therefore, AspP projects in accomplishments and activities that have internal structure. In contrast, AspP does not project in achievements since achievements are punctual events and have no internal temporal structure. See (20a, b) (Again, the structures represented here are below *v*P):

(20) a. ACCOMPLISHMENT



b. ACHIEVEMENT



Under this approach, AspP does not function as an event delimiter. Thus, the projection of AspP does not mean the event must be telic or delimited.[69] AspP is present solely for expressing (transitional) process. Further, I do not assume that Asp checks overt case (associated with a telic feature) in the case of Turkish. I assume that in Turkish an overtly (accusative) case-marked noun is always licensed in the specifier of *v*P, not in the specifier of AspP. It has been shown in the literature that there is a direct correlation between an overt (accusative) case marker on the internal argument of a verb and (non-)delimitedness of VP in languages like Finnish and Scottish Gaelic (e.g. Kiparsky 1998, Kratzer 2004 for Finnish; Ramchand 1993 for Scottish Gaelic); however, as we will see in the examples below, Turkish does not show such a one-to-one

[69] See other proposals in which the Asp head carries features such as [±delimited] or [±telic] (e.g. Borer 1993, Egerland 1998, Kratzer 2004, to name a few); however, I am *not* claiming that Asp is the locus of telicity.

correspondence between overt case morphology and the delimited or telic reading of V though a sentence with a case-marked object is indeed telic (see (21b)):

(21) a. Murat *bir saat-te / bir saat boyunca kitap oku-du. (atelic)
Murat one hour-in / one hour for book read-PAST
'Murat read books/a book *in an hour/ for an hour.'

b. Murat kitab-ı bir saat-te / *bir saat boyunca oku-du. (telic)
Murat book-ACC one hour-in / one hour for read-PAST
'Murat read the book in an hour / *for an hour.'

c. Murat bir saat-te/ *bir saat boyunca bir / üç/çok kitap oku-du. (telic)
Murat one hour-in/ one hour for one /three/many book read-PAST
'Murat read a book/three books/many books in an hour/ *for an hour.

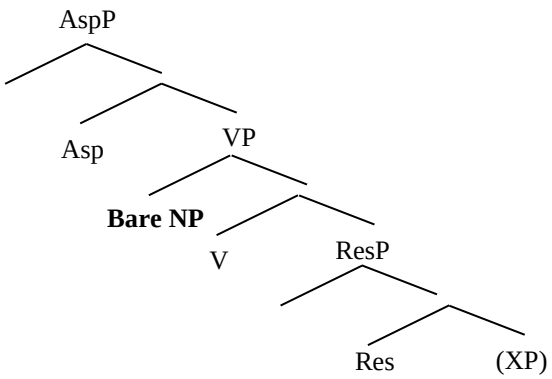
As in (21c), when a bare noun is modified by a (cardinal) number or a weak determiner-like expression such as *bir* 'a', *birkaç* 'some', *bir takım* 'several', *çok* 'many', etc. (in the sense of Milsark (1977)), a delimited or telic interpretation obtains. We now see that only accomplishment constructions with an incremental process like (20) show a telic interpretation if their internal argument is case-marked (i.e. specific) or modified by quantity expressions (i.e. non-specific). Activities and achievements do not behave in the same way as accomplishments; that is, irrespective of specificity or case marking, the telicity of activity and achievement VPs is not affected. Given that caseless quantified nouns are non-specific, and that the example (21c) (i.e. a sentence with a caseless quantified internal argument) is telic, specificity as well as case morphology would not make a contribution to determining telicity. Telicity or delimitedness of events could, then, be due to more than one factor. I conclude that in Turkish, delimitedness of events is not represented only by a particular functional projection (such as AspP or ResP) or a particular case morphology (associated with features like [+telic]); we need to consider multiple factors (e.g. the type of V (complement of AspP), the nature of NP in the specifier of VP and the type of complement of V).

I have made an assumption about syntactic structures of accomplishments and achievements. I propose that there is a functional projection AspP as an extended projection of V. What is crucial here is that AspP projects in accomplishments while it does not in achievements. Another important point is that both accomplishments and achievements have ResP in their structure. It has often been argued that ResP is the locus of delimitedness of events; that is, when ResP is present, a sentence is assumed to be telic (e.g. Lin 2004). However, this is not necessarily the case; resultative constructions do not have to be telic. I assume that it is legitimate to suppose ResP in accomplishments even when an accomplishment with a bare internal object receives a non-delimited reading. We will take a look at this issue in the next subsection 3.1.4.

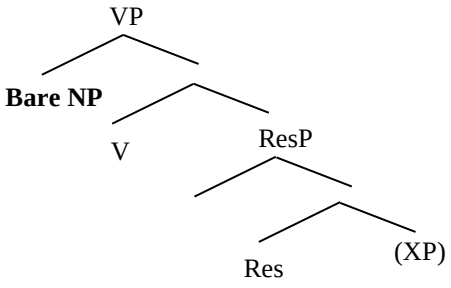
3.1.4 Complement of accomplishments and achievements

I argue that in both Turkish achievements and accomplishments a bare internal argument occurs in the specifier of VP (cf. Larson 1988; Hale & Keyser 1993, 2000). A small clause is predicated of a bare NP in the specifier position. Once again, I summarize below the structural difference between accomplishments (see (22a)) and achievements (see (22b)):

(22) a. ACCOMPLISHMENT



b. ACHIEVEMENT



Both an accomplishment V and an achievement V take a secondary predicate as their complement (e.g. Hoekstra 1988), as shown in (22a, b). A bare NP is base-generated in the specifier of VP,[70] and if required (e.g. due to an EPP requirement), it moves to a higher position.

In achievements like (22b), ResP is predicated of a bare NP in the specifier of VP. ResP expresses a result state, and a VP taking ResP as its complement denotes a punctual event. Since an achievement is punctual, AspP does not project in its structure.

In accomplishments like (22a), as illustrated, AspP projects on top of the VP containing ResP. I assume that the resultative secondary predicate ResP appears as the complement of an accomplishment V. Recall that Ramchand (2008, 2011) defines the direct object of an accomplishment V as a PATH DP whose function is just like a PP PATH (a spatial path):[71]

(23) Accomplishment vs. Achievement (Ramchand 2008)
a. …[$_{VP(procP)}$ [$_{V'}$ V DP/PP$_{PATH}$]] (Accomplishment)
b. …[$_{VP(procP)}$ [$_{V'}$ V [*Res*P DP]] (Achievement)

Ramchand claims that the telic reading of accomplishments is optional as opposed to achievements, and that the optionality of telic reading indicates that there is no particular syntactic structure (or a sentence with ResP) determining telicity. However, as shown in (24b) and (25b), an accomplishment that involves a resultative construction does not need to be telic (e.g. Schmitt 1996; Rothstein 2001; Folli & Harley 2006):

(24) a. John wiped the table clean in three hours / *for three hours.
b. John wiped tables clean *in three hours / for three hours.

(25) a. John ran to the store in three hours / *for three hours.
b. John ran to stores *in three hours / for three hours.

[70] Another possibility would be that a bare NP is base-generated in the specifier of ResP and moves to the specifier of VP (along with head raising), as Ramchand (2008) posits (see also Shafer & Alexiadou 2011, in line with Hale & Keyser (1993, 2000)). Such an option is certainly possible; however, my ultimate goal here is to show the structural difference between accomplishments and achievements, not to investigate whether NP moves from ResP to VP. What is important is that a bare NP object occurs (or ends up) in SpecVP and does not move any further. Since the proposed syntactic structure (and prosody) is not affected by such a movement, I leave this issue to future research.
[71] Ramchand states that not only DP/NPs and PPs, but also APs can be PATH, which provides a gradable property.

As can be seen in the English examples (24) and (25), the temporal boundedness of a resultative construction can shift, which depends on the type of nominal phrases. Turkish also has resultative constructions similar to English (AP/PP resultatives), though the number of such constructions is quite limited (Meral 2005):

(26) *Turkish* (PP-resultative)[72]

a. Mehmet çöp-ü *bir saat-te / bir saat boyunca kaldırım-a doğru süpür-dü.
Mehmet trash-ACC one hour-in/one hour for sidewalk-DAT into sweep-PAST
'Mehmet swept the trash into the sidewalk *in an hour / for an hour.'

b. Mehmet *bir saat-te / bir saat boyunca kaldırım-a doğru çöp süpür-dü
Mehmet one hour-in/one hour for sidewalk-DAT into trash swept-PAST
'Mehmet swept trash into the sidewalk *in an hour/ for an hour.'

In the case of the example (26), even though the resultative phrase is predicated of the internal argument, the non-delimited interpretation obtains. Here, the resultative construction is not telic even when the internal argument is accusative case-marked, as in (26a).[73] This shows clearly that resultative constructions do not have to be telic.

Now, to see whether the Turkish example (26) is a resultative construction, we can check VP constituency by using the *do so*-substitution test (cf. Levin and Rappaport Hovav 1995). A resultative secondary predicate which is closely associated with the internal argument is assumed

[72] I present a PP resultative in Turkish here in (26) instead of an AP resultative, in order to show sentences with definite and indefinite NPs. As I briefly mentioned above, Turkish has AP resultatives like English; however, it is difficult to get a resultative reading with a bare NP for independent reasons. See (i):

(i) a. Ali saç-ı-nı kısa kes-ti.
Ali hair-POSS3sg short cut-PAST
'Ali cut his hair short.' (Meral 2005)

b. Ali kısa saç kes-ti.
Ali short hair cut-PAST
'Ali cut short hair.' (Intended: Ali cut his hair short.)

c. Ali *bir saat-te/ bir saat boyunca saç kes-ti.
Ali one hour-in/ one hour for hair cut-PAST
'Ali cut hair *in an hour/ for an hour.'

The example (ia) is considered to be an AP resultative in Turkish. It should be noticed that the verb *kes*- 'cut' behaves as an accomplishment. Like other Turkish accomplishments, the event denoted by *kes*- 'cut' is durational when it has a bare internal object, as shown in (ic). As can be seen in (ib), since the adjective *kısa* 'short' appears to the left of the noun *saç* 'hair', the adjective behaves as an adnominal modifier modifying the following noun phrase *saç* 'hair'. Due to word order reasons, the resultaive reading is not available.

[73] It should be noted that the event denoted by the verb *süpür*- 'sweep' patterns with an accomplishment; without a PP resultative, a sentence with an accusative case-marked object is telic, and a sentence with a bare object is atelic.

to occur within (a minimum) VP (e.g. Rothstein 1985). If the structure is a resultative, '*do so*' should be able to substitute (a minimum) VP, accommodating an internal argument and a secondary predicate AP or PP. See (27) in English and (28) in Turkish:

(27) a. John wiped the table clean, and Mary did so, too.
b. John wiped tables clean, and Mary did so, too.

(28) *Turkish*
a. Mehmet çöp-ü kaldırım-a doğru süpür-dü; Ali-de öyle yap-tı.
Mehmet trash-ACC sidewalk-DAT into sweep-PAST Ali-also so do-PAST
'Mehmet swept the trash into the sidewalk, and Ali did so, too.'

b. Mehmet kaldırım-a doğru çöp süpür-dü; Ali-de öyle yap-tı.
Mehmet sidewalk-DAT into trash sweep-PAST Ali-also so do-PAST
'Mehmet swept trash into the sidewalk, and Ali did so, too.'

Both (27) and (28) are grammatical. This means that the secondary predicate is inside of VP. Now, see (29) and (30) below. All of these sentences are ungrammatical; the resultative interpretation is not available. This indicates that AP/PP is *not* outside of a minimum VP:

(29) a. *John wiped the table clean, and Mary did so dirty.
b. *John wiped tables clean, and Mary did so dirty.

(30) *Turkish*
a. *Mehmet çöp-ü kaldırım-a doğru süpür-dü; Ali-de yol-a doğru
Mehmet trash-ACC sidewalk-DAT into sweep-PAST Ali-also road-DAT into

öyle yap-tı.
so do-PAST
'Mehmet swept the trash into the sidewalk, and Ali did so into the road.'

b. *Mehmet kaldırım-a doğru çöp süpür-dü; Ali-de yol-a doğru
Mehmet sidewalk-DAT into trash sweep-PAST Ali-also road-DAT into

öyle yap-tı.
so do-PAST
'Mehmet swept trash into the sidewalk, and Ali did so into the road.'

The result from (29) and (30) shows that the sentences are resultatives, not the other type of secondary predication constructions (depictives) in which the secondary predicate is supposed to occur in an adjunction position.

Based on these observations, I posit that an accomplishment with a bare NP object and one with an accusative case-marked object exhibit the same syntactic constructions; an accomplishment VP contains ResP, regardless of its temporal boundedness.

In summary, I postulate that accomplishments have an AspP projection while achievements do not. Further, both accomplishment and achievement VPs take a resultative secondary predicate ResP as their complement. With the proposed structures in mind, let us concentrate on Turkish data in the next section 3.2.

3.2 Achievements vs. Accomplishments: Turkish

I have made specific assumptions about the syntactic structures of Turkish accomplishments and achievements in the section 3.1. Thus far, I have shown some transitive achievements and accomplishments. In this section, achievements and accomplishments in the case of Turkish are summarized. I present more data on Turkish achievements and accomplishments, examining both intransitives and transitives.

3.2.1 Achievements

Achievements are punctual events and are thus telic. Turkish achievements do not allow the durational modifier "for *x* time", whereas the time frame adverbial "in *x* time" is compatible with achievements:[74]

(31) **Unaccusative achievements**

a. *bir saat boyunca/bir saat-te adam geldi
one hour for/one hour-in man arrive-PAST
'The/A man arrived *for an hour/in an hour.'

b. *bir saat boyunca/bir saat-te araba dur-du
one hour for/one hour-in car stop-PAST
'The/A car stopped *for an hour/in an hour.'

[74] At this point, I ignore the syntactic positions of *x boyunca* 'for *x* time' and *x-te* 'in *x* time'. Thus, I uniformly add those adverbials immediately before an internal argument. In fact, a case-marked object (and a definite subject) should ideally be on the left of those temporal adverbials, if the sentence is to be perfectly acceptable. I will mention this issue in the next chapter (Chapter 4).

c. *bir saat boyunca/bir saat-te dağ belir-di
one hour for/one hour-in mountain appear-PAST
'The/A mountain appeared *for an hour/in an hour.'

d. *bir saat boyunca/bir saat-te top düş-tü
one hour for/one hour-in ball fall-PAST
'The/A ball fell *for an hour/in an hour.'

(32) **Transitive achievements**

a. Mehmet *bir saat boyunca/bir saat-te zirve(-ye) ulaş-tı
Mehmet one hour for/one hour-in summit(-DAT) reach-PAST
'Mehmet reached a(the) summit *for an hour/in an hour.'

b. Mehmet *bir saat boyunca/bir saat-te ödev(-i) bitir-di
Mehmet one hour for/one hour-in paper(-ACC) finish-PAST
'Mehmet finished a(the) paper *for an hour/in an hour.'

c. Mehmet *bir saat boyunca/bir saat-te cam(-ı) kır-dı
Mehmet one hour for/one hour-in glass(-ACC) break-PAST
'Mehmet broke a(the) glass *for an hour/in an hour.'

d. Mehmet *bir saat boyunca/bir saat-te araba(-yı) durdur-du
Mehmet one hour for/one hour-in car(-ACC) stop-PAST
'Mehmet stopped a(the) car *for an hour/in an hour.'

(33) **Unaccusative/Transitive achievements with caseless quantified objects**

a. *bir saat boyunca/bir saat-te bir /üç /çok adam geldi
one hour for/one hour-in one /three/many man arrive-PAST
'The man/A man/three men/many men arrived *for an hour/in an hour.'

b. Mehmet *bir saat boyunca/bir saat-te bir /üç /çok cam kır-du.
Mehmet one hour for/one hour-in one /three/many glass break-PAST
'Mehmet broke a glass/three glasses/many glasses *for an hour/ in an hour.'

As can be seen in (31) – (33), achievements do not allow the durational modifier *x boyunca* 'for *x* time', regardless of the type of internal arguments.

In addition to the adverbial test, another helpful test[75] to tell if an event is an achievement and to distinguish achievements from accomplishments (and activities) is to observe the

[75] I do not use the progressive test which has often been utilized in the literature. It has been claimed that achievements are infelicitous in the progressive. However, the compatibility of the progressive with Turkish achievements is not consistent, just like English. That is, some achievements do appear in the progressive, as has already been discussed previously (e.g. Rothstein 2004). The behavior of progressive achievements in Turkish is generally similar to English. For instance, *Mehmet gel-iyor* 'Mehmet is arriving' means that "Mehmet is coming"; hence, Mehmet has not arrived yet, but is getting close to the goal (a final state). Although I believe that achievement progressives and accomplishment progressives differ (semantically), I do not pursue how (semantically) different they can be (See e.g. Piñón 1997; Rothstein 2004 for a detailed semantic analysis). The point here is to find an evident clue that achievements are syntactically different from accomplishments.

acceptability of complementation by verbs such as Turkish *durdur-* or *bitir-*, i.e. 'stop' or 'finish'. Since punctual events are over as soon as they have begun, achievements sound strange as the complement of *stop*:[76]

(34) a. *Mehmet gel-me-yi durdur-du.
Mehmet arrive-ING-ACC stop -PAST
'Mehmet stopped arriving.'

b. *Dağ belir-me-yi durdur-du.
mountain appear -ING-ACC stop-PAST
'The mountain stopped appearing.'

c. *Mehmet zirve-ye ulaş-ma-yı durdur-du.
Mehmet summit-to reach- ING-ACC stop-PAST
'Mehmet stopped reaching the/a summit.

d. ??Mehmet cam(-ı) kır-ma-yı durdur-du.
Mehmet glass(-ACC) break- ING-ACC stop-PAST
'Mehmet stopped breaking a/the glass.'

The result of these two tests shows that Turkish achievements do not accept the durational modifier (for *x* time), and are incompatible as the complement of the verb *stop*.

3.2.2 Accomplishments

Accomplishments can be telic (under certain circumstances), like achievements. However, unlike achievements, accomplishments are processes that can be extended over time. Therefore, accomplishments behave differently from achievements:

(35) **Unaccusative accomplishments**
a. uçak bir saat boyunca/bir saat-te yüksel-di.
airplane one hour for/one hour-in ascend-PAST
'The airplane ascended for an hour/ in an hour.'[77]

[76] Here, I exclude situations like an action leading to the end result "Mehmet stopped breaking the glass" (Interpreted as "Mehmet stopped doing the action that causes the glass to break") or a habitual reading like "Mehmet stopped noticing the bulletin."

[77] It seems that *uçak* 'airplane' is always definite/specific in this sentence (39a) – which shows that the verb *yüksel-* 'ascend' behaves like an unergative verb (or put it differently, a topic position (as I have discussed in Chapter 2) must be overtly filled in this type of predicates). Even if this verb is unergative, behaving as if it is an *activity* verb, in Turkish, my prediction is still borne out since it means that this verb is NOT an achievement verb. Another possibility is that sentences with this type of verbs would be so-called 'degree achievements' (e.g. Hay, Kennedy, and Levin 1999; Kennedy and Levin 2002; Rothstein 2004) in Turkish. I put this type of verbs (such as *art-*/*azal-* 'increase/decrease', *soğu-* 'cool') into the category of accomplishments here since they can be durational under certain circumstances just like accomplishments. Degree achievements are considered to be a special kind of process

b. bir saat boyunca/bir saat-te hastalık yayıl-di.
one hour for one hour-in disease spread-PAST
'The/A disease spread for an hour/ in an hour.'

In Turkish, irrespective of specificity/(in)definiteness, the durational adverbial *x boyunca* 'for *x* time' is generally compatible with unaccusative processes/accomplishments, as shown in (35).

As for transitive accomplishments like (36), the durational adverbial is compatible when the internal argument is a bare noun phrase:

(36) **Transitive accomplishments with bare NP object**
a. Mehmet bir saat boyunca/ *bir saat-te kitap oku-du.
Mehmet one hour-in/ one hour for book read-PAST
'Mehmet read books/a book for an hour/ *in an hour.'

b. Mehmet bir saat boyunca/ *bir saat-te elma ye-di.
Mehmet one hour for / one hour -in apple eat-PAST
'Mehmet ate apples/an apple for an hour/ *in an hour.'

As discussed in section 3.1, when the internal argument is either accusative case-marked or modified by cardinal numbers or expressions of quantity (or weak quantifiers), the durational adverbial cannot appear; those sentences are telic, as given in (37) and (38):

(37) **Transitive accomplishments with caseless quantified objects**
a. Mehmet *bir saat boyunca/ bir saat-te bir /üç /çok kitap oku-du.
Mehmet one hour-in/ one hour for one /three/many book read-PAST
'Mehmet read a book/three books/many books *for an hour/ in an hour.'

b. Mehmet *bir saat boyunca/ bir saat-te bir /üç /çok elma ye-di.
Mehmet one hour-in/ one hour for one /three/many apple eat-PAST
'Mehmet read an apple/three apples/many apples *for an hour/ in an hour.'

(38) **Transitive accomplishments with caseless quantified objects**
a. Mehmet kitab-ı *bir saat boyunca/ bir saat-te oku-du.
Mehmet book-ACC one hour for/ one hour-in read-PAST
'Mehmet read the book *for an hour/ in an hour.'

b. Mehmet elma-yı *bir saat boyunca/ bir saat-te ye-di.
Mehmet apple-ACC one hour for/ one hour-in eat-PAST
'Mehmet ate the apple *for an hour/ in an hour.'

---

verb, whose (aspectual) properties have been analyzed in the semantics literature (e.g. Hay et al. 1999). I do not scrutinize degree achievements (e.g. the nature of (gradual) change and (the degree of) affectedness of internal arguments) since syntactic structures do not seem to be (directly) affected by such properties.

Unlike achievements, accomplishments can occur with *durdur-* 'stop':

(39) a. Mehmet kitap/kitab-ı oku-ma-yı durdur-du.
Mehmet book/book-ACC read-ING-ACC stop-PAST
'Mehmet stopped reading books/ the book.'

b. Mehmet elma/elma-yı ye-me-yi durdur-du.
Mehmet apple/apple-ACC eat-ING-ACC stop-PAST
'Mehmet stopped eating apples/the apple.'

c. Mehmet ev/ev-i yap-ma-yı durdur-du.
Mehmet house/house-ACC make-ING-ACC stop-PAST
'Mehmet stopped building houses/the house.'

d. Mehmet ödev/ödev-i yaz-ma-yı durdur-du.
Mehmet paper/paper-ACC write-ING-ACC stop-PAST
'Mehmet stopped writing a paper/ the paper.'

When the verb *durdur* 'stop' occurs in accomplishments, the ongoing event is cut in, and the implication is that the event has not reached the endpoint.

As we have seen, the aspectual distinction between achievements and accomplishments is clear. It has often been argued in the literature that the temporal boundedness of accomplishments is dependent on the direct object of a verb (e.g. Verkuyl 1972, 1993; Krifka 1992) or determined by the verb's relation with its direct object (Rothstein 2004). Based on what has been suggested in the previous research and from the proposed syntactic structure in the current study, my conclusion here is that the temporal (un)boundedness of accomplishments is not determined by only one ingredient, but related to the following factors: (*i*) the type of dynamic verb, (*ii*) the type of complement – ResP in the case of accomplishments, and (*iii*) the nature of NP in the specifier of VP; thus, it is essential to consider the interaction and relation between an accomplishment verb taking ResP as its complement and its direct object in the specifier position. In consequence, what syntactically distinguishes achievements from accomplishments is that an accomplishment V taking ResP as its complement has its extended projection, AspP.

3.2.3 Activities

Let us now discuss activities here. Events denoted by activities also express a process or transition and can extend over time like accomplishments. Therefore, the durational adverbial is compatible with activities:

(40) **Intransitives**

a. Adam bir saat boyunca/ bir saat-te koş-tu.
man one hour for / one hour-in run-PAST
'The man/ *A man ran for an hour/ *in an hour.'

b. Kız bir saat boyunca/ bir saat-te uyu-du.
girl one hour for / one hour-in sleep-PAST
'The girl/ *A girl slept for an hour/ *in an hour.'

As in (40), intransitive activities are mostly unergatives. Since the subject of unergatives is base-generated outside of VP, the non-specific reading is not available in (40a, b); that is, the subject of unergatives is always definite/specific.[78]

Now, consider transitive activities:

(41) **Transitives**

a. Mehmet *bir saat-te/bir saat boyunca araba it-ti.
Mehmet one hour-in/ one hour for cart push-PAST
'Mehmet push carts *in an hour/ for an hour.'

b. Mehmet araba-yı *bir saat-te/ bir saat boyunca it-ti.
Mehmet cart-ACC one hour-in/ one hour for push-PAST
'Mehmet push the cart *in an hour/ for an hour.'

c. Mehmet *bir saat-te/bir saat boyunca bir/ üç /many araba it-ti.
Mehmet one hour-in/ one hour for one /three/many cart push-PAST
'Mehmet push a cart/ three carts/many carts *in an hour/ for an hour.'

As can be seen in (41), regardless of the type of internal arguments (e.g. specificity, numeral modifiers/quantifiers, case marking), activities are non-delimited or atelic. The properties of the internal argument of an activity do not influence the telicity of a sentence. Since activity events can extend over time, I do assume that AspP projects in activities, which is shared with accomplishments. The structural distinction between accomplishments and activities would be

[78] Prosody also reflects this syntactic fact, which will be shown in the next chapter, Chapter 4.

that activity constructions lack ResP in its syntactic structure; nothing is predicated of NP in the specifier of VP. However, as shown in (42), when ResP is *added* to an activity, activities can become accomplishments:

(42) **Activities and optional resultative phrase (ResP)**

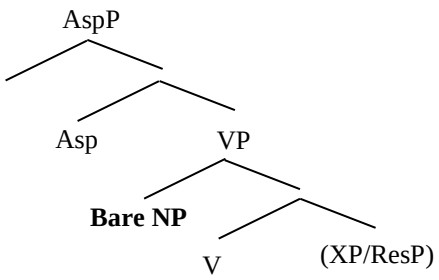
a. Mehmet *bir saat boyunca/ bir saat-te dükkan-a kadar koş-tu.
Mehmet *one hour for /one hour-in store-DAT up to run-PAST
'Mehmet ran to the store *for an hour/ in an hour.'

b. Mehmet *bir saat boyunca/ bir saat-te dükkan-a kadar araba sür-dü.
Mehmet one hour for one hour-in store-DAT up to car drive-PAST
'Mehmet drove a car to the store *for an hour/ in an hour.'

c. Mehmet araba-yı *bir saat boyunca/ bir saat-te dükkan-a kadar sür-dü.
Mehmet car-ACC one hour for one hour-in store-DAT up to drive-PAST
'The man drove the car to the store *for an hour/ in an hour.'

In (42), when a 'bounded' path phrase (e.g. Hoekstra 1984, 1988; Zwarts 2003, 2005) is added, a sentence receives the delimited interpretation. I assume that the lexical verb V taking ResP and its relation to NP in the specifier position affect the (non-)delimitedness of a sentence. Based on the observations above, I propose the structure of activities, as illustrated in (43):

(43)



In the next sections 3.3 and 3.4, to further support the necessity of AspP, I will discuss a close relation between AspP and Number Phrase (NumP), and claim that AspP is necessary to account for the syntactic positions for a low adverb and NumP. Let us first look at facts about low adverb modification in 3.3 and then move to the discussion of AspP and its relation to NumP in 3.4.

3.3 Facts about low adverb modification[79]

On the syntax of adverbs, one approach is that adverbs are *specifiers*, in line with Kayne's (1994) Antisymmetric view.[80] Let us begin with Cinque's (1999) proposal and discuss the question of what the definition of 'low adverb' is. We, then, move onto a sentence with a low adverb and a bare internal object, in order to see the relative location of a low adverb.

3.3.1 Cinque (1999)

Cinque (1999) claims that adverbs are always licensed in specifiers of functional projections, showing a universal hierarchy of functional heads. (44) illustrates Cinque's (1999) hierarchy of adverbs:

(44) Cinque's universal hierarchy of clausal functional projections (Cinque 1999: 106)

[*frankly* **Mood**$_{\text{SpeechAct}}$

[*fortunately* **Mood**$_{\text{Evaluative}}$

[*allegedly* **Mood**$_{\text{Evidential}}$

[*probably* **Mod**$_{\text{Epistemic}}$

[*once* **T**$_{\text{(past)}}$

[*then* **T**$_{\text{(future)}}$

[*perhaps* **Mod**$_{\text{Irrealis}}$

[*necessarily* **Mod**$_{\text{Neccesity}}$

[*possibly* **Mod**$_{\text{Possibility}}$

[*usually* **Asp**$_{\text{Habitual}}$

[*again* **Asp**$_{\text{Repetitive (I)}}$

[*often* **Asp**$_{\text{Frequentative (I)}}$

[*intentionally* **Mod**$_{\text{Volitional}}$

[79] We will take a closer look at the syntactic positions of adverbs and nominal arguments in Chapter 4.
[80] In Kayne (1994), specifiers and adjuncts are not distinguished.

[*quickly* **Asp**$_{\text{Celerative (I)}}$

[*already* **T**$_{\text{(Anterior)}}$

[*no longer* **Asp**$_{\text{Terminative}}$

[*still* **Asp**$_{\text{Continuative}}$

[*always* **Asp**$_{\text{Perfect}}$

[*just* **Asp**$_{\text{Retrospective}}$

[*soon* **Asp**$_{\text{Proximative}}$

[*briefly* **Asp**$_{\text{Durative}}$

[*characteristically* **Asp**$_{\text{Generic/progressive}}$

[*almost* **Asp**$_{\text{Prospective}}$

[*completely* **Asp**$_{\text{SgCompletive (I)}}$

[*tutto* **Asp**$_{\text{PlCompletive}}$

[*well* **Voice**

[*fast/early* **Asp**$_{\text{Celerative (II)}}$

[*again* **Asp**$_{\text{Repetitive (II)}}$

[*often* **Asp**$_{\text{Frequentative (II)}}$

[*completely* **Asp**$_{\text{SgCompletive (II)}}$]]]]]]]]]]]]]]]]]]]]]]]]]]]]]]

Cinque's data comes primarily from Italian and French; however, since this hierarchy is claimed to be universal, it can apply cross-linguistically. Under this approach, the morphemes in the head positions of functional projections are assumed to appear as the mirror image of the linear order of the functional projections shown in (45) (i.e. Mirror Principle proposed by Baker (1988)). Therefore, the order of suffixes suggests the relative order of functional heads:

(45) a. Korean
$Mood_{speech\ act}$ > $Mood_{evaluative}$ > $Mood_{evidential}$ > Modality > T (past) > T (future) > Voice (> V)

b. Turkish
$Mood_{speech\ act}$ > T (past) > T (future) > $Modality/Aspect_{progressive}$ > Voice > V
(Cinque 1999: 54)

(45) shows clearly that the linear order of morphemes mirrors the order of Cinque's hierarchy (44). In the next subsection 3.3.1.2, we will examine the case of Turkish adverbs.

3.3.2 The case of Turkish adverbs

Now, although I adopt the idea that adverbs are systematically generated as *specifiers* of maximal projections, I assume that adverbs can occur in specifiers of lexical projections, not limited to specifiers of functional projections.

As Wilson and Saygın (2001) show from Turkish data, it seems that Cinque's hierarchy works for Turkish:

(46) a. Acıkcası muhtemelen gel-me-yeceğ-im.
frankly probably arrive-NEG-FUT-1SG
'Frankly, I probably won't arrive.'

b. *Muhtemelen acıkcası gel-me-yeceğ-im.
frankly probably arrive-NEG-FUT-1SG
'Probably, frankly I won't arrive.'

(47) a. Her zaman iyi yaz-ar.
always good write-AOR-3SG
'He always writes well.'

b. *Iyi her zaman yaz-ar.
good always write-AOR-3SG
'He well always writes.' (Wilson and Saygın 2001)

However, it has been claimed that the order of adverbs like *frequently, wisely, suddenly, already, willingly,* and *now* is not as rigid as Cinque's claim (see e.g. Cinque 2004; Ernst 2002; Wilson & Saygın 2001 for Turkish) – seemingly, these adverbs occur relatively freely:

(48) a. She frequently was suddenly (being) rejected by publishers.

b. She suddenly was (being) frequently rejected by publishers. (Cinque 2004)

This type of phenomenon can also be seen in Turkish:

(49) a. Ahmet şimdi akıllıca teslim ol-du.
Ahmet now wisely surrender be-PAST.3SG
'Ahmet has now wisely surrendered.'

b. Ahmet akıllıca şimdi teslim ol-du.
Ahmet wisely now surrender be-PAST.3SG
'Ahmet has wisely now surrendered.' (Wilson and Saygın 2001)

In (49a, b), the linear order of *şimdi* 'now' and *akıllıca* 'wisely' looks flexible. Next, consider (50) and (51):

(50) a. (Ders-e gel-diğ-imiz-de) Can {her zaman/genelde} zaten ora-da-dır.
(class-dat arrive-mon-1PL-LOC) Can {always/usually} already there-LOC-3SG
'(When we get to class,) Can is {always/usually} already there.'

b. ??(Ders-e gel-diğ-imiz-de) Can zaten {her zaman/genelde} ora-da-dır.
(class-dat arrive-mon-1PL-LOC) Can already {always/usually} there-LOC-3SG
'(When we get to class,) Can is {always/usually} already there.'
(Wilson and Saygın 2001)

(51) a. Can zaten {her zaman/genelde} gel-ir.
Can already {always/usually} arrive-AOR-3SG
'Can already {always/usually} arrives at class.'
(Context: so we don't need to remind him to attend.)

b. ??Can {her zaman/genelde} zaten gel-ir.
Can {always/usually} already arrive-AOR-3SG
'Can already {always/usually} arrives at class.'
(Context: so we don't need to remind him to attend.)
(adapted from Wilson and Saygın 2001)

According to Cinque's hierarchy (44) above, *usually* should occur higher than *already* and *always*, and *already* should occur higher than *always*, as roughly sketched in (52):

(52) …*usually* > … *already* …> *always*… (cf. see (44))

As shown in (50) and (51) above, though Turkish *genelde* 'usually' should occur in a position higher than *her zaman* 'always' in order to capture Cinque's hierarchy (52), Turkish *her zaman* 'always' and *genelde* 'usually' seem to behave alike. As for the adverb *zaten* 'already,' while *zaten* 'already' in (50) behaves like a low adverb, the same adverb in (51) also seems to behave as a high adverb. Apparently, Cinque's hierarchy is not consistent with the Turkish data (50) and

(51). Cinque (2004), however, defends his claim by pointing out that though the core meaning of an adverb appears to be the same across languages, some additional interpretations of the same adverb can be underspecified, depending on languages. For instance, Italian *presto* corresponds to English *soon*, but *presto* can also mean English *quickly* and *early* (Cinque 2004). Then, it would be possible to say that Italian *presto* occupies multiple positions corresponding to positions where English *soon*, *quickly* and *early* can occupy. If so, it can be claimed that the cause of the apparent contradiction seen in the Turkish data (50) and (51) as well as the English data (48) is the underspecified meanings which can be associated with different syntactic positions. As we have seen in (50a), Turkish *zaten* 'already' does occur in a 'lower' position as in Cinque's hierarchy. Importantly, when it is used as a *low* adverb, *zaten* 'already' is not allowed to occur in a position higher than *always/usually*, as shown in (50a, b). Therefore, (51b) is ungrammatical with this linear order. On the other hand, the same adverb can appear in a 'higher' position and seems to function as a high adverb (e.g. Mood or Modal); thus, (51a) is grammatical and Turkish *zaten* must precede *always/usually*. Since it is used as a 'high' adverb, the linear order of adverbs again matters, and the interpretation is also different, as shown in the English translation in (51) (compare the interpretation (50) with (51)). Based on the discussion of (50) and (51), the linear order of Turkish *already*, *always* and *usually* can be illustrated as (53):

(53) … $already_{high}$ >…*usually*, *always* > … $already_{low}$ … (Turkish)

This result shows that even though Cinque's hierarchy would generally work the order of adverbs given in (53) is not necessarily consistent with the hierarchy (perhaps due to different underspecified interpretations associated with different structural positions depending on languages). Since, as we will see in the next section, an adverb like *çabuk* 'quickly' cannot occur in SpecTP but it *must* occur below TP (or *v*P), particular sequences of adverbs should be

maintained. However, I assume that a certain amount of flexibility can be allowed in the system; that is, adverbials of a particular type do not have to occur in *one* designated structural position. For example, a temporal adverbial like *dün* 'yesterday' can occur in a higher position (e.g. SpecTP) and can also occur in a lower position (e.g. SpecVP) (see Chapter 4, 4.5), which does not clearly show the interpretational difference that may arise from its syntactic position.

Now, some questions arise: (*i*) What is the definition of '*low* adverb' or '*low* position'? (*ii*) Where is the (relative) boundary between a 'low' position and a 'high' position? (*iii*) Are *her zaman* 'always' and *genelde* 'usually' low adverbs or high adverbs? These issues are discussed in the next subsection 3.3.3.

3.3.3 Turkish low adverbs

Consider a sentence containing a low adverb such as *çabuk* 'quickly' and a bare internal object:

(54) *Mehmet çabuk ödev bitir-di. (Achievement)
Mehmet quickly paper finish-PAST
'Mehmet finished papers/a paper.'

(55) Mehmet çabuk kitap oku-du. (Accomplishment)
Mehmet quickly book read-PAST
'Mehmet quickly read books/a book.'

(56) Mehmet çabuk araba it-ti. (Activity)
Mehmet quickly cart push-PAST
'Mehmet quickly pushed a cart/carts.'

As shown, the low adverb *çabuk* 'quickly' can appear in the accomplishment and activity VPs in (55) and (56), but not in the achievement VPs in (54). I claim that a low adverb cannot appear in an achievement construction with an indefinite/non-specific object because there is no place available for a low adverb to occupy. In the case of accomplishments, a low adverb can occur with a bare internal object. This implies that there is some place for a low adverb to occupy without a violation of LCA arising. The example (56) illustrates this point:

(57) a. **Achievement**
*[$_{TP}$ Mehmet [$_{vP}$ … [$_{VP}$ çabuk [$_{VP}$ ödev bitir-di]]]]
Mehmet quickly paper finish-PAST
'Mehmet quickly finished a paper.'

b. **Accomplishment**
[$_{TP}$ Mehmet [$_{vP}$ … [$_{AspP}$ çabuk [$_{Asp'}$ Asp [$_{VP}$ kitap oku-du.]]]]
Mehmet quickly book read-PAST
'Mehmet quickly read a book.'

c. **Activity**
[$_{TP}$ Mehmet [$_{vP}$ … [$_{AspP}$ çabuk [$_{Asp'}$ Asp [$_{VP}$ araba it-ti.]]]]
Mehmet quickly cart push-PAST
'Mehmet quickly pushed a cart.'

As shown in (56a), if a low adverb merges to VP, it means that two specifier positions are created in VP. This causes the ungrammaticality of (56a), due to the violation of LCA at PF. On the other hand, (56b) and (56c) are grammatical since *çabuk* 'quickly' can occur in the specifier of AspP. Thanks to the existence of AspP, there is now a position available for a low adverb to occupy.

Now, let us test other adverbs, too:

(58) *zaten, çoktan* 'already'
a. **Achievement**
*[$_{TP}$ Mehmet [$_{vP}$ … [$_{VP}$ zaten [$_{VP}$ ödev bitir-di]]]]
Mehmet already paper finish-PAST
'Mehmet already finished a paper.'

b. **Accomplishment**
[$_{TP}$ Mehmet [$_{vP}$ … [$_{AspP}$ zaten [$_{Asp'}$ Asp [$_{VP}$ kitap oku-du.]]]]
Mehmet already book read-PAST
'Mehmet already read a book.'

c. **Activity**
[$_{TP}$ Mehmet [$_{vP}$ … [$_{AspP}$ zaten [$_{Asp'}$ Asp [$_{VP}$ araba it-ti.]]]]
Mehmet already cart push-PAST
'Mehmet already pushed a cart.'

(59) *kasten* 'intentionally'
a. **Achievement**
*[$_{TP}$ Mehmet [$_{vP}$ … [$_{VP}$ kasten [$_{VP}$ cam kır-dı]]]]]]]
Mehmet intentionally glass break-PAST
'Mehmet intentionally broke a glass.'

b. **Accomplishment**
[$_{TP}$ Mehmet [$_{vP}$ … [$_{AspP}$ kasten [$_{Asp'}$ Asp [$_{VP}$ kitap oku-du.]]]]
Mehmet intentionally book read-PAST
'Mehmet intentionally read a book.'

c. **Activity**
[$_{TP}$ Mehmet [$_{vP}$ … [$_{AspP}$ kasten [$_{Asp'}$ Asp [$_{VP}$ araba it-ti.]]]]
Mehmet intentionally cart push-PAST
'Mehmet intentionally pushed a cart.'

(60) *hemen* 'almost'

a. **Achievement**
*[$_{TP}$ Mehmet [$_{vP}$ … [$_{VP}$ hemen [$_{VP}$ cam kır-dı]]]]]]]
Mehmet almost glass break-PAST
'Mehmet almost broke a glass.'

b. **Accomplishment**
[$_{TP}$ Mehmet [$_{vP}$ … [$_{AspP}$ hemen [$_{Asp'}$ Asp [$_{VP}$ kitap oku-du.]]]]
Mehmet almost book read-PAST
'Mehmet almost read a book.'

c. **Activity**
[$_{TP}$ Mehmet [$_{vP}$ … [$_{AspP}$ hemen [$_{Asp'}$ Asp [$_{VP}$ araba it-ti.]]]]
Mehmet almost cart push-PAST
'Mehmet almost pushed a cart.'

As can be seen in (57) – (59), these adverbs all pattern with *çabuk* 'quickly.'[81] This shows that adverbs in (57) – (59) are low adverbs and occur in SpecVP (in achievements) or SpecAspP (in accomplishments). As expected, (*a*) examples in in (57) – (59) are all ungrammatical due to a LCA violation. To avoid symmetry among multiple specifiers, the internal argument must move

[81] As shown in (60)–(64), low adverbs/manner adverbs can appear in the achievement class as long as Antisymmetry is respected. It is often pointed out in literature that achievements do not allow manner adverbs (Piñón 1997):

(i) a. #John quickly reached the summit.
b. #John quickly won the game.
c. #John quickly arrived.

Since achievement events have *no* duration, *quickly* cannot modify the process part of the event structure. If so, then, the question is exactly what a low adverb like *quickly* in Turkish can modify when it is present in an achievement. It has been stated that an adverb like *quickly* has two readings: (A) quantification over the event (*John was quick in*…) or (B) quantification over the process (*John did it in a quick way*) (Travis 1988; Cinque 1999). Indeed, it seems that that only the (A)-reading is available when such an adverb occurs in Turkish achievements (while both readings are available in accomplishments (activities)). Thus, even when *quickly* attaches to VP, the (B)-reading cannot obtain since there is no process/duration (AspP) in an achievement. This, however, shows two important points: one thing is that the (B)-reading is not available in a Turkish achievement because there is *no* AspP in its structure (emphasizing the existence of AspP), and another thing is that the (un)grammaticality of (60)–(64) is sensitive to the position of an internal argument (the definiteness of NP) (indicating that structure must obey Antisymmetry). This is different from English in that English does not seem sensitive to the definiteness of a noun phrase.

out of VP (for EPP reasons) to some higher position (i.e. Spec*v*P – a canonical accusative-case checking position):

Achievement:

(61) *çabuk* 'quickly'
a. [Mehmet [$_{vP}$ para-yı …[$_{VP}$ *çabuk* [$_{V'}$ bul-du]]]] (Achievement)
Mehmet money-ACC quickly discover-PAST
'Mehmet quickly discovered the coin.'

b. *[Mehmet [$_{vP}$ *çabuk* [$_{vP}$ para-yı …[$_{VP}$ [$_{V'}$ bul-du]]]]
Mehmet quickly money-ACC discover-PAST
'Mehmet quickly discovered the coin.'

(62) *zaten* 'already'
a. [Mehmet [$_{vP}$ ödev-i … [$_{VP}$ *zaten* [$_{VP}$ bitir-di]]]]
Mehmet paper already finish-PAST
'Mehmet already finished the paper.'

b. *[Mehmet [$_{vP}$ *zaten* [$_{vP}$ ödev-i … [$_{VP}$ [$_{VP}$ bitir-di]]]]
Mehmet already paper finish-PAST
'Mehmet already finished the paper.'

(63) *kasten* 'intentionally'
a. [Mehmet [$_{vP}$ cam-ı …[$_{VP}$ *kasten* kır-dı]]]
Mehmet glass-ACC intentionally break-PAST
'Mehmet intentionally broke the glass.'

b. *[Mehmet [$_{vP}$ *kasten* [$_{vP}$ cam-ı …[$_{VP}$ kır-dı]]]
Mehmet intentionally glass-ACC break-PAST
'Mehmet intentionally broke the glass.'

(64) *hemen* 'almost'
a. [Mehmet [$_{vP}$ cam-ı …[$_{VP}$ *hemen* kır-dı]]]
Mehmet glass-ACC almost break-PAST
'Mehmet almost broke the glass.'

b. *[Mehmet [$_{vP}$ *hemen* [$_{vP}$ cam-ı …[$_{VP}$ kır-dı]]]
Mehmet almost glass-ACC break-PAST
'Mehmet almost broke the glass.'

All the (*a*) examples in (60) – (64) are grammatical. It has been shown that accusative-case-marked nouns in Turkish occur syntactically higher than bare nouns (e.g. Zidani-Eroğlu 1997). Given that *v* licenses a structural accusative case feature and that the specifier of *v*P is a

canonical accusative case checking position[82] (Chomsky 1995), I assume that the overtly shifted object (i.e. the accusative-marked object) appears in Spec*v*P. Therefore, as long as a low adverb occurs structurally lower than *v*P, the sentence is grammatical, as in the (*a*) examples. As shown in the (*b*) examples, the adverb cannot occur immediately before the accusative-marked object, which accordingly shows that a low adverb cannot attach to *v*P (due to the LCA). A low adverb behaves exactly in the same way in accomplishment and activity constructions, too:

Accomplishment:

(65) *çabuk* 'quickly'

a. [Mehmet [$_{vP}$ kitab-ı [*çabuk* [$_{VP}$ oku-du]]]]
Mehmet book-ACC quickly read-PAST
'Mehmet quickly read the book.'

b. *[Mehmet [$_{vP}$ *çabuk* [$_{vP}$ kitab-ı [$_{VP}$ oku-du]]]]
Mehmet quickly book-ACC read-PAST
'Mehmet quickly read the book.'

(66) *zaten, çoktan* 'already'

a. [Mehmet [$_{vP}$ kitab-ı [*zaten* [$_{VP}$ oku-du]]]]
Mehmet book-ACC already read-PAST
'Mehmet already read the book.'

b. *[Mehmet [$_{vP}$ *zaten* [$_{vP}$ kitab-ı [$_{VP}$ oku-du]]]]
Mehmet already book-ACC read-PAST
'Mehmet already read the book.'

(67) *kasten* 'intentionally'

a. [Mehmet [$_{vP}$ elma-yi [*kasten* [$_{VP}$ ye-di]]]]
Mehmet apple-ACC intentionally eat-PAST
'Mehmet intentionally ate the apple.'

b. *[Mehmet [$_{vP}$ *kasten* [$_{vP}$ elma-yi [$_{VP}$ ye-di]]]]
Mehmet intentionally apple-ACC eat-PAST
'Mehmet intentionallyh ate the apple.'

(68) *hemen* 'almost'

a. [Mehmet [$_{vP}$ elma-yi [*kasten* [$_{VP}$ ye-di]]]]
Mehmet apple-ACC almost eat-PAST
'Mehmet almost ate the apple.'

[82] As another possibility, this overt movement could be triggered by EPP (e.g. Chomsky 2000, 2001).

b. *[Mehmet [$_{v}$P *kasten* [$_{v}$P elma-yi [$_{VP}$ ye-di]]]]
Mehmet almost apple-ACC eat-PAST
'Mehmet almost ate the apple.'

Activity:

(69) *çabuk* 'quickly'

a. [Mehmet [$_{v}$P araba-yi [*çabuk* [$_{VP}$ it-ti]]]]
Mehmet cart-ACC quickly push-PAST
'Mehmet quickly pushed the cart.'

b. *[Mehmet [$_{v}$P *çabuk* [$_{v}$P araba-yi [$_{VP}$ it-ti]]]]
Mehmet quickly cart-ACC push-PAST
'Mehmet quickly pushed the cart.'

(70) *zaten, çoktan* 'already'

a. [Mehmet [$_{v}$P program-ı [*zaten* [$_{VP}$ seyret-ti]]]]
Mehmet program-ACC already watch-PAST
'Mehmet already watched the (TV) program.'

b. *[Mehmet [$_{v}$P *zaten* [$_{v}$P program-ı [$_{VP}$ seyret-ti]]]]
Mehmet already program-ACC watch-PAST
'Mehmet already watched the program.'

(71) *kasten* 'intentionally'

a. [Mehmet [$_{v}$P elma-yi [*kasten* [$_{VP}$ ye-di]]]]
Mehmet apple-ACC intentionally eat-PAST
'Mehmet intentionally ate the apple.'

b. *[Mehmet [$_{v}$P *kasten* [$_{v}$P elma-yi [$_{VP}$ ye-di]]]]
Mehmet intentionally apple-ACC eat-PAST
'Mehmet intentionallyh ate the apple.'

(72) *hemen* 'almost'

a. [Mehmet [$_{v}$P araba-yi [*kasten* [$_{VP}$ it-ti]]]]
Mehmet cart-ACC almost push-PAST
'Mehmet almost pushed the cart.'

b. *[Mehmet [$_{v}$P *kasten* [$_{v}$P araba-yi [$_{VP}$ it-ti]]]]
Mehmet almost cart-ACC push-PAST
'Mehmet almost pushed the cart.'

Therefore, it is reasonable to say that a low adverb cannot attach to *v*P when there is an accusative-marked object. Consequently, possible positions for low adverbs must be SpecVP and SpecAspP. And based on the observations from the examples (61) – (72), I suggest that in

Turkish adverbs such as *her zaman* 'always' and *genelde* 'usually' should be considered to be 'high adverbs' which appear in a position higher than *v*P.[83]

3.3.4 Statives and low adverbs

Though this thesis concentrates on the accomplishment/achievement dichotomy, it is worth noting stative constructions and their relationship with low adverbs.

Statives are totally homogeneous. They are durative and non-dynamic. While both accomplishments/activities and statives are durative, they are different in that statives are not process predicates like accomplishments/activities. Now the question is whether AspP projects in statives. As I have indicated in 3.1 and 3.2 above, AspP signals *durativity*, not dynamicity. Under this view, AspP expresses the temporal duration. Then, if AspP expresses 'duration,' it might be the case that there is AspP in statives, too:

(73) a. Ankada-da zaten/çoktan adam otur-iyor.
Ankara-in already man live-PRES
'A man already lives in Ankara.'

b. Ankada-da adam zaten/çoktan otur-iyor.
Ankara-in man already live-PRES
'The man already lives in Ankara.'

(74) a. ?Mehmet tamamen yabancı dil bil-iyor/anla-yor.
Mehmet completely foreign language know-PRES/understand-PRES
'Mehment completely understands a foreign language.'

b. Mehmet yabancı dil-i tamamen bil-iyor/anla-yor.
Mehmet foreign language-ACC completely know-PRES/understand-PRES
'Mehment completely understands a foreign language.'

As shown in (73a), the low adverb *zaten/çoktan* 'already' can occur in the intransitive stative. This means that AspP projects in this construction. If verbs like *lie*, *sit* and *live* are considered as *interval states* (Dowty 1979), which can appear in the progressive and behave somewhat similarly to accomplishments and activities, it is not surprising to see that a structure like (73)

[83] As discussed in Chapter 4, it turns out that an adverb which creates its own prosodic domain (i.e. Phonological Phrase (PPh)) is considered to be a *high* adverb. If an adverb does not create its own PPh and stays within the same PPh (the rightmost PPh), it is a *low* adverb.

has AspP. In (74a), this sentence sounds very strange to native speakers of Turkish while the example (74b) is fine. I believe that AspP projects in (74a) since the sentence is not totally ungrammatical.[84]

To summarize, statives are assumed to have no internal structure and involve no change, which is clearly different from a process (i.e. gradual changes that have an indefinite number of transitions); however, it seems that there is a certain group of statives that can allow low adverb modification in a sentence containing a bare indefinite/non-specific internal argument. Further, since statives are durative while achievements are instantaneous, statives behave differently from achievements, too, as clearly shown in (73) and (74). Nevertheless, the possibility of combining a low adverb with a bare indefinite/non-specific argument from statives above has shown that AspP signals durativity, not dynamicity, which supports the current proposal.[85]

3.4 AspP and NumP

Now that we have established the syntactic structures of achievements and accomplishments (as well as activities), it is important to see why AspP needs to be postulated and why AspP projects in accomplishments (and activities) but not in achievements. As a piece of evidence supporting the existence of AspP in accomplishments (and activities), we can consider the behavior of a low adverb and its interaction with a sentence with or without quantity modifiers (such as cardinal numbers and other quantity expressions), which is going to be the topic of the next section.

[84] Though I do not have a clear answer as to why (74a) is not 'perfectly' grammatical, I suspect that this is probably due to a (sub-)type of AspP (See fn. 85); that is, the (sub-)type of AspP in statives is different from that in accomplishments and activities, which may affect the grammaticality (or acceptability) of (74a).

[85] It would be possible to distinguish one (sub-)type of AspP from another, such as Asp$^{[process]}$P (accomplishments and activities) vs. Asp$^{[-process]}$P (statives), though both of these Aspect Phrases indicate durativity. Since AspP is an extended projection of a lexical verb V, the type of V would affect the content of Asp head. Then, it can be claimed that Asp$^{[-Process]}$P projects in statives.

3.4.1 AspP and its relation to NumP

Assuming that a low adverb can only occur in SpecVP or SpecAspP, I have proposed that AspP projects in accomplishments and activities, by looking at the behavior of a low adverb and the syntactic position of a bare internal object, as discussed in 3.3.1. The crucial point here is that in accomplishments (and activities) there is a space for a low adverb to occupy if the internal argument is a bare noun. With this in mind, consider an accomplishment (49) (the low adverb is italicized):

(75) a. *Mehmet *çabuk* bir/üç/birkaç/çok kitap oku-du. (Accomplishment)
Mehmet quickly one/three/some/many book read-PAST
'The man quickly read a book/three books/some books/many books.'

b. Mehmet bir kitab-ı[86] *çabuk* oku-du.
Mehmet a/one book-ACC quickly read-past
'The man quickly read a certain book.'

As shown in (75a), when a morphologically unmarked object (i.e. a bare internal object) is modified by a quantity expression, a low adverb cannot occur in a sentence. As in (75b), if a quantified object is accusative case-marked, which means that case-marked object appears structurally higher than the adverb *çabuk* 'quickly', then the sentence is grammatical. Now, recall that I have argued that a low adverb can occur in SpecVP or SpecAspP. The ungrammaticality of (49b) suggests that neither SpecVP nor SpecAspP is available for the low adverb here in (49a). My proposal here is that cardinal number phrases or other quantity modifiers occupy SpecAspP, and a bare internal object stays in SpecVP, as schematized in (76):

(76) …[$_{vP}$ …[$_{AspP}$ **Number/Quantity expressions** [$_{VP}$ **a bare object** [$_{ResP}$…]]]]

[86] Notice that not every quantified noun phrase can be accusative-marked in Turkish. Some weak quantifiers (such as *çok* 'many', *birkaç* 'some') cannot be accusative-marked. (Strong) Quantifiers such as *çoğu* 'most', *her* 'every', *her bir* 'each' must be accusative-marked (e.g. Aygen-Tosun 1999).

As can be seen in (50), both SpecAspP and SpecVP are filled at the same time. If the low adverb *çabuk* 'quickly' occurs in a structure like (50), the structure becomes ill-formed, due to a violation of the LCA.

We now need to examine why number/quantity expressions occur in SpecAspP as shown in (76). It has been argued that there is a close relation between cardinality and verbal phrase aspect (e.g. Verkuyl 1993; Kiparsky 1998). For example, it has been claimed that the mass/count distinction on internal arguments can directly be correlated with atelicity/telicity distinction of verbs. A number of proposals have pointed out some functional elements (such as NumP (e.g. Ritter 1992)) on nominals. NumP is assumed to be an extended projection of N, just like AspP as an extended projection of V. Travis (1992) indicates that there is some correspondence between functional components on nouns and those on verbs, and argues that NumP corresponds to AspP, showing morphological similarities between number and aspect markers in Tagalog. The parallelism between nominal aspect (NumP) and verbal aspect (AspP) has also been pointed out in den Dikken (2010). Providing the parallel structures of aspectual projections for nominals and verbs, den Dikken (2010) labels NumP as Asp$^{[NUM]}$P. This again captures the direct relationship between Number and Aspect. Therefore, I assume that in Turkish, too, there is a close relationship between particular nominal features (i.e. number features) and the verbal domain (i.e. AspP). To establish such a close relation between NumP and AspP, Megerdoomian (2008), investigating East Armenian, proposes that the relevant features of nouns corresponding verbal elements are checked against each other via a Spec-Head relation. Megerdoomian suggests that NumP can occur in SpecAspP as a consequence of checking relevant features between Num and Asp heads. Let us see some relevant examples from the East Armenian data:

(77) a. Sirun-ə mi jam / ?*mi jam-um xəndozor der-av.
Sirun-NOM one hour / one hour-LOC apple eat-AOR.3SG

‘Sirun ate apples for an hour / ?*in an hour.’

b. Sirun-ə xəndozor-ə *mi jam / mi jam-um der-av.
Sirun-NOM apple-ACC one hour / one hour-LOC eat-AOR.3SG
‘Sirun ate the apple *for an hour / in an hour.’

(Megerdoominan 2008: 23)

As shown in (77a), when the object is non-specific (caseless), the accomplishment sentence is compatible with the durational adverbial; thus, it is atelic. In contrast, as shown in (77b), when the object is accusative-case-marked, the sentence is incompatible with the durational adverbial; thus, it is telic. This pattern is similar to the Turkish data discussed in 3.2. Now, consider (78):

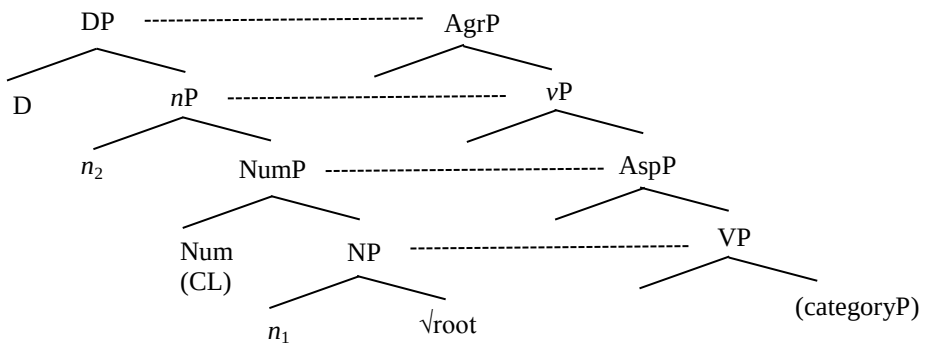
(78) a. lezvaban-ner-ə yerku šiš gini-n *mi jam / mi jam-um xəm-ets-in.
linguist-PL-NOM two bottle wine-ACC one hour/ one-hour-LOC drink-AOR-3PL
‘The linguists drank the two bottles of wine *for an hour / in an hour.’

b. lezvaban-ner-ə *mi jam / mi-jam-um yerku šiš gini xəm-ets-in.
linguist-PL-NOM one hour / one hour-LOC two bottle wine drink-AOR-3PL
‘The linguists drank two bottles of wine *for an hour / in an hour.’

In both (78a) and (78b), an object is modified by a number/quantity expression. As shown in (78a), a sentence with an accusative-marked object is telic. As in (78b), a sentence with a caseless object with a quantized expression is also telic. Megerdoominan points out that specificity *per se* does not contribute to any aspectual interpretation since it has been shown that a sentence with a non-specific (such as (78b)) can provide the aspectual/telic interpretation; rather, the aspectual interpretations come from the direct relation between verbal aspect and the cardinality of the direct object. Therefore, Megerdoominan separates the information given by defninteness/specificity[87] and number properties into two different syntactic nodes (i.e. DP and NumP, respectively). A direct relationship between the nominal and verbal domains is illustrated in (79):

[87] Megerdoomian (2008) claims that nominal specificity is associated with the D head. In Chomsky (1995), D-feature (or definiteness) is associated with the D head. Given that definites are all specifics (cf. Enç 1991), a ‘definite’ argument is certainly specific; it is possible to assume that specificity is related to D though I do not have a clear answer as to whether specificity is checked against D in Turkish.

(79)



(Megerdoomian 2008:33)

Megerdoomian (2008, p. 33) develops the parallelism architecture (79) based on the *Extended X-bar Principle* (Vergnaud & Zubizarreta 2001): "Every cognitive (semantic) category is analyzed in terms of a fixed set of features common to all categories." The hypothesis here is that all categories have the same underlying features. Under this system, features on Num (e.g. mass/count destinction) for nominal categories must be the same as features on Asp for verbal categories. Likewise, features on n_2 correspond to features on *v*, and so on.[88] Once the two matching nodes enter into a checking relation, certain results will obtain (e.g. overt case or agreement morphology, aspectual readings, and so on). The link between nominal categories and verbal categories is established via a Spec-Head relation; thus, a noun phrase occurs in the specifier position of the relevant verbal head (i.e. NumP occurs in SpecAspP).[89]

We have seen some similarities between East Armenian data presented in Megerdoomian (2008) and Turkish. In East Armenian, like Turkish, telicity does not seem to be determined solely by, for instance, overt case morphology or specificity. But telicity comes from some extra factors, as discussed earlier. The telic reading of an accomplishment with a quantized object obtains as one of the results (e.g. a NumP – AspP relation, the type of the complement of AspP

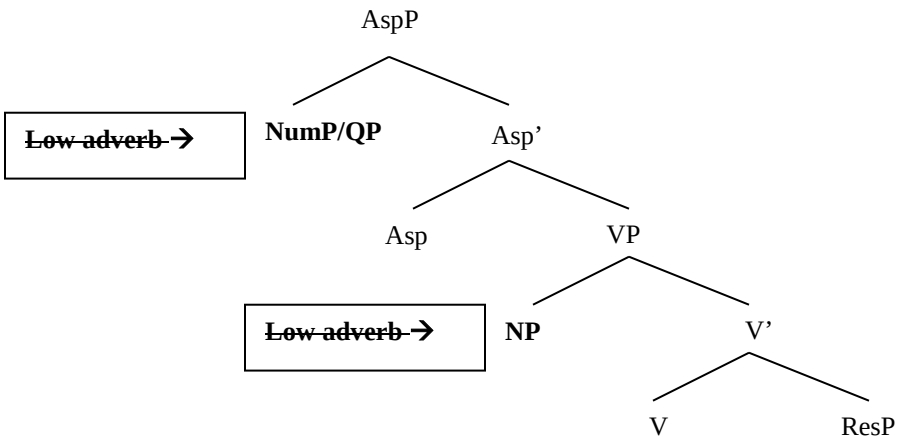
[88] Megerdoomian follow the notion of Distributed Morphology (DM) (Halle & Marantz 1993), in which the category of a root is determined by a category-determining functional head (such as *n*, *v*). In this dissertation, I do not particularly utilize the DM framework though it is possible to assume that there is a (or more) functional projection(s) between DP and NumP.

[89] The possibility that NumP occurs in SpecAspP, splitting from NP in SpecVP, is not discussed in Megerdoomian (2008).

(the type of V), the nature of NP in SpecVP, and the nature of the complement of V). And notice that only an accomplishment shows this consequence. Therefore, I assume that there are some additional structures (i.e. AspP as well as ResP) in which the relation between NumP and AspP is established.[90]

Here, I argue that number and quantity expressions in Turkish occur in SpecAspP whenever AspP and number/quantity phrases appear in a structure. This is because features, including number features, on the Asp head can be satisfied by an overt number element (NumP) in SpecAspP. In the case of Turkish, I argue that *only* number/quantity phrases (which I name NumP here) appear in SpecAspP (when AspP projects), which would be the case in Accomplishments (and Activities). This is once again illustrated in the following tree:

(80) **Accomplishment**



As shown in (80), I propose that NumP is base-generated in SpecAspP, separating from its associated NP (in SpecVP). This might be because Turkish does not allow (Numeral) Floating

[90] In this respect, languages differ with regard to how verbal aspect establishes a relation with certain nominal features. This should be related to a parametric choice. As Megerdoomian states, a language like Finnish, a case morphology is manifested as a realization of boundedness (aspect) (e.g. Kiparsky 1998; Kratzer 2004). On the other hand, East Armenian, Turkish and Hindi (as Megerdoomian suggests) do not establish the close relationship between aspect and a case.

Quantifiers, as discussed in Muysken (1989). As shown in (81) and (82), numerals/quantifiers cannot be dislocated:

(81) a. Bütün grup gel-di
all group of people arrive-PAST
'All the people arrived.'

b. *Grup bütün gel-di.
group of people all arrive-PAST
'All the people arrived.'

(82) a. Mehmet iki kitab-ı oku-du.
Mehmet two book-ACC read-PAST
'Mehmet read the two books.'

b. *Mehmet kitab-ı iki oku-du.
Mehmet book-ACC two read-PAST
'Mehmet read the two books.'

The examples (81) and (82) show that numerals or quantifiers are not allowed to move. Now, consider the ungrammatical example (82b) (an achievement like (81) will be discussed later in this section). One might argue that if numerals and other quantity expressions are base-generated discontinuously from the associated noun phrases, it should be *easy* rather than hard to move the NP away from the numeral/quantifier. If so, an example like (82b) should be grammatical; however, it is not the case. Thus, this needs to be explained. I assume that the ungrammaticality of (81b) and (82b) is related to Minimality effects (Rizzi 1990, 2001) (which will also be discussed in 3.3.3 below). My assumption here is that in an accomplishment construction NumP (in SpecAspP) and its associated NP (in SpecVP) are base-generated discontinuously, as shown in (80), and therefore, moving only NP to some higher position causes Minimality effects since it crosses over the associated NP (in another A-position):

(83) …kitab-ı … [$_{AspP}$ iki [$_{VP}$ t_i oku-du]] (cf. (80b))

Minimality violation

… book-ACC two read-PAST
'… read the two books.'

Therefore, a structure like (83)/(82b) is not possible in Turkish. In order to avoid the Minimality violation and to get the felicitous interpretation (i.e. the definite/specific interpretation) in (82), the entire DP must move out of AspP/VP to a higher position, as shown in (82a). Here, the issue is why, in Turkish accomplishments, it is obligatory to base-generate a quantifier separately from its lexical restrictor (i.e. its NP associate). Sportiche (1998) proposes that D (elements non-thematically associated with N such as determiners and (numeral) quantifiers) and its NP associate do not necessarily form as a constituent, and that those determiners and quantifiers are generated outside of VP,[91] as illustrated in (84):

(84) a. *[$_{VP}$ [$_{D/QP}$ [NP]] V] b. D/QP ….[$_{VP}$ NP V]

(modified from Sportiche 1998)

According to Sportiche, V always selects the N head of NP, not the D head of DP (or QP). This would work for accomplishments (with non-specifics) in Turkish, but not in achievements. Therefore, I suggest that Sportiche's claim is applied in the form of a preference principle. That is, numerals and quantifiers (as well as determiners) are ideally (or preferably) base-generated, splitting from their associated NPs; however, they are base-generated together only when there is no way to base-generate them separately (e.g. (82a) (an accomplishment with a case-marked object) discussed above, and achievements, which will be discussed below).[92] I will come back to this issue again in the following section (Section 3.3.3).

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[91] As one of the supportive claims for this, Sportiche (1998) discusses the raising cases, as shown in (i):

(i) a. *Himself seemed to John [*t* to be sick].
b. *He seemed to John's mother to be sick.

Sportiche argues that reconstruction is not possible in (ia, b); thus, there would be no movement in these sentences. If this is the case, arguments for raising are based on selection of NPs, not of Ds (in most cases); D (also including numerals (and quantifiers)) and NP are not necessarily born as constituents.

[92] Under the DP-splitting approach (and the preference principle), that NumP and NP should be split whenever possible would raise serious questions about the circumstances under which it can be overridden. Absence of AspP is a circumstance that forces one to override the preference to split NumP and NP; in achievements there is no choice but to base-generate NumP and NP as parts of a single nominal constituent. Apparently the desire to put in low adverb is NOT a circumstance that allows us to override the preference to split NumP and NP: if it were, then accomplishments with numerically quantified bare objects should be compatible with a low adverb; however, the key observation made in this dissertation is that they are *not*. The question though is whether a numerically

As illustrated in the tree structure (80), a low adverb cannot occur since PF-visible elements already occupy the specifier positions. The structure must follow the linearization requirements (Antisymmetry), as discussed earlier. AspP does not project in achievements; thus, as discussed above, there is no way for a (numeral) quantifier to be base-generated separately from its NP associate. When AspP does not project in a structure, nothing needs to be checked or satisfied in a higher projection, in terms of number features; therefore, in such a case, I assume that NumP, as an extended projection of N, embeds NP, and the entire noun phrase modified by a number/quantity expression occupies SpecVP:

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quantified bare object noun phrase can move as a constituent in accomplishments or not. One of the ways to test this would be to look at topialization. Since a topicalized material (NP or VP) does not undergo A-movement, but A-bar movement, moving NP/VP, leaving NumP in SpecAspP behind, should NOT incur a minimality violation: A-bar movement is not constrained by intervening A-specifiers. And the prediction is specific to accomplishments (and activities). In achievements, the quantifier and the bare object form a constituent; hence, splitting them should NOT be possible under topicalization. Though it is generally assumed that VP-topicalization is not possible in Turkish (e.g. Öztürk 2004, 2005), there is a proposal that says that topicalizing a bare object noun phrase (NP-topicalization) is possible (e.g. İsşsever 2008; İsşsever & Gračanin-Yüksek 2011):

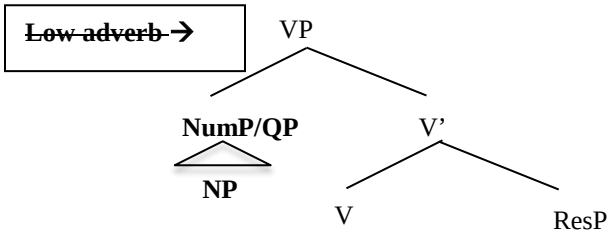
(i) a. ELMA$_i$ Ali çok t_i ye-di (suşi değil). (Contrastive stress is indicated with small capitals.)
apple Ali a.lot eat-PAST (sushi not)
'Ali ate too much apples (not sushi).'
b. KITAP$_i$ Ali çok t_i oku-yor (gazete değil).
book Ali a.lot read-PRES.PROG.3SG (newpaper not)
'Ali reads books a lot (not newspapers). (modified from İsşsever & Gračanin-Yüksek 2011)

İsşsever (2008) claims that topicalizing a bare object is possible (Note: the proposal made in İsşsever (2008) is slightly different than İsşsever & Gračanin-Yüksek (2011)). As shown in (i), a bare object in (i) moves to a sentence-initial topic position and strands the quantifier *çok* 'many.' If this is an instance of NP-topicalization in Turkish, this NP-movement is obviously A-bar movement; therefore, it does not create a mimality effect. On the other hand, achievement sentences like (iia) and (iib) sound bad to nativeTurkish speakers:

(ii) a. *PARA Ali çok bul-du (elmas değil).
coin Ali a.lot find-PAST (diamond not).
'Ali found many coins (not diamonds).
b. *ÖDEV Ali çok bitir-di (çamaşır değil).
paper Ali a.lot finish-PAST (laundry not)
'Ali finished many papers (not laundry).'

As mentioned, since the numeral quantifier and NP necessarily form a constituent in achievements, splitting DP is ruled out in (ii) (it should be noted, though, that çok 'a lot' can be a VP modifier, which can potentially weaken my argument here). Though further research and testing this prediction are necessary, I believe that the contrast between (i) and (ii) sufficiently supports the current proposal.

(85) **Achievement**



In achievement constructions, SpecVP is the only possible site for low adverbs. As shown in (85), a low adverb cannot occur in this structure since, just like an achievement with a bare internal object, SpecVP is occupied by NumP; the structure (85) also shows the ungrammaticality just like an achievement with a bare internal object, as shown in (86):

(86) a. *Mehmet *çabuk* para bul-du.
Mehmet quickly money discover-PAST
'Mehmet quickly discovered a coin.'

b. *Mehmet *çabuk* bir/çok para bul-du.
Mehmet quickly one/many money discover-PAST
'Mehmet quickly discovered a coin/many coins.'

Adopting Sportiche's (1998) proposal as a preference principle, I have proposed that *only* NumP, splitting from NP occurs in SpecAspP in Accomplishments and this is due to the presence of AspP and its close relation to NumP. Next, we need to clarify why only NumP, not an entire NumP embedding NP, appears in SpecAspP, as proposed in (80) and whether this type of construction can be attested across languages. I believe that this is possible. To support this, let us consider "Quantifier at a Distance" (QAD) sentences in French (e.g. Kayne 1975; Obenauer 1983, 1994 to name a few):

(87) a. J'ai lu **beaucoup de livres**.
I have read a lot of books
'I read a lot of books.'

b. J'ai **beaucoup** lu **de livres**. *Quantification at a Distance*
I a lot read of books
'I read a lot of books.'

In (87a), the quantifier *beaucoup* 'a lot' modifies the DP *de livres* 'of books. In a QAD sentence like (87b), *beaucoup* 'a lot' occurs immediately before the verb *lu* 'read,' splitting from *de livres* 'of books.' While the movement analysis has been offered (e.g. Milner 1978; Rowlett 1996, among others), the base-generation analysis is equally available (e.g. Kayne 1975; Obenauer 1983; Burnett 2010, among others):

(88) a. J'ai [beaucoup$_i$ [$_{VP}$ lu [t_i [$_{DP}$ de livres]] (Movement analysis)

b. J'ai [beaucoup [$_{VP}$ lu [$_{DP}$ de livres]] (Base-generation analysis)

If *beaucoup* 'a lot' is base-generated in a QAD construction, as shown in (88b), this is compatible with the idea that *only* NumP appears (as base-generated), separating from an object, as I have proposed for Turkish. Assuming that *beaucoup* is base-generated, Burnett (2010) points out that QAD does not occur so freely and that QAD is restricted, depending on a certain type of predicate. See (89), for instance:

(89) a. Il vient de boire **beaucoup de lait**.
he came to drink a lot of milk
'He has just drunk a lot of milk.'

b. *Il vient de **beaucoup** boire **de lait**.
he came to a lot drink of milk
'He has just drunk a lot of milk.' (Obenauer 1983)

When a punctual event predicate such as *venir de V* 'to just V' is added, a QAD construction with this predicate is not allowed, as shown in (89a) while a canonical construction is grammatical, as shown in (89a). See another example:

(90) a. Jean a possédé **beaucoup de chevaux**.
Jean has owned a lot of horses
'Jean has owned a lot of horses.'

b. *Jean a **beaucoup** possédé **de chevaux**.
Jean has a lot owned of horses
'Jean has owned a lot of horses.' (Obenauer 1994)

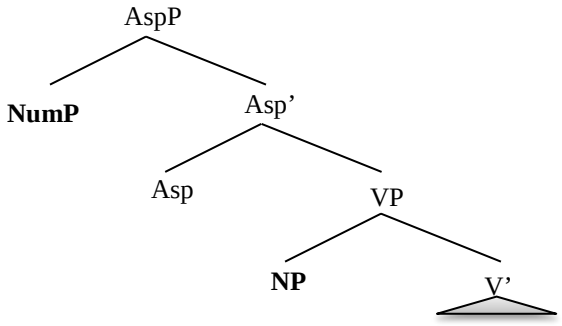
While a canonical quantification sentence like (90a) is fine, QAD is not allowed in a sentence with a stative predicate, as in (90b). What (89) and (90) show is that QAD is not allowed in certain types of event predicates. In other words, this constraint seems to have something to do with *Aspectual* properties of predicates. In fact, Obenauer (1983) proposes that "QAD sentences are only true in contexts involving many events" (Multiplicity of Events Requirement (MER)) (cited in Burnett 2010). That is, QAD would not occur when there is a single event. If so, it can be claimed that *beaucoup* 'a lot' cannot occur in a certain type of construction (or in a simpler structure) because there is *no* space (or structure) available for *beaucoup* to appear in syntax (such as (89b) and (90b)) while in a sentence like (87a) there is a space for *beaucoup* 'a lot' to occupy (and it could have a more complex structure); thus, the syntactic structure of (87a) and of (89b)/(90b) are probably different. In Turkish, NumP is base-generated separately from an object only in accomplishments (when it is caseless and non-specific) while NumP forms a constituent with the noun phrase in achievements (thus, a QAD-like structure is not allowed in achievements). From the French QAD data, it is possible to assume that NumP can occur, splitting from the object DP in certain event predicates in some other language(s), and Universal Grammar makes such a construction available (though not every language uses this type of construction).

In the next subsection 3.3.3, further evidence supporting the proposed structure (80) will be presented.

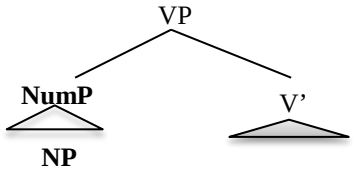
3.4.2 Split DP and Antisymmetry

Let us recapitulate the structures I proposed in 3.3.2 here. I will particularly focus on the accomplishment structure (91a) in which a number element (NumP) occurs separately from a bare object:

(91) a. **Accomplishment (with a non-case marked NumP)**



b. **Achievement (with a non-case marked NumP)**



To defend the claim that NumP occurs in SpecAspP, splitting off from NP in SpecVP, as in (91a), I will discuss the classifier *–tane* constructions in 3.3.3.1 and pluralized noun phrases in 3.3.3.2, and show that both SpecAspP and SpecVP are indeed filled at the same time. In such a case, a low adverb cannot appear since there is no position available for low adverbs.

3.4.2.1 The classifier *tane* construction

In Turkish, counting objects does not require a numeral classifier, which differs from a language with a rigid classifier system such as Japanese; however, a classifier-like element can be used optionally. An element like *tane* 'item' has been analyzed as a classifier[93] in the literature (e.g. Schroeder 1992; Öztürk 2004; Kornfilt & von Heusinger 2009; Bošković & Şener 2012). Therefore, *Num* NP appears with or without a classifier, as shown in (92):

(92) a. iki elma
two apple
'two apples'

b. iki tane elma
two 'item' apple
'two apples'

[93] *Tane* 'item' is the most widely used classifier in Turkish.

When the classifier *tane* appears in a noun phrase, only the non-specific interpretation is available, as in (93a, b):

(93) a. Mehmet iki tane elma ye-di.
Mehmet two CL apple eat-PAST
'Mehmet ate two apples.' (*non-specific* apples)

b. Mehmet üç tane elma ye-di; Ali-de iki tane ~~<elma>~~ ye-di.
Mehmet three CL apple eat-PAST; Ali-TOP two CL eat-PAST
'Mehmet ate three apples, and Ali ate two (apples).' (*non-specific* apples)

c. *…. Ali-de iki ye-di. (deletion of a bare object is impossible.)
Ali-TOP two eat-PAST
'…Ali ate two (apples).'

As in (93b), it is possible to delete a bare object. The example (93c) shows that deleting a bare object is impossible if there is no classifier. Notice here that in (93b) the object *elma* 'apple' is deleted. If the postulation that *Num-tane* must be in SpecAspP in (93b) is on the right track, SpecVP should be available for a low adverb to occupy. We expect to see that a low adverb can appear in (93b). This seems to be the case, as shown in (94):

(94) (?)Mehmet üç tane elma ye-di; Ali-de iki tane ***çabuk*** ~~<elma>~~ ye-di.
Mehmet three CL apple eat-PAST; Ali-TOP two CL quickly eat-PAST
'Mehmet ate three apples, and Ali ate two (apples) quickly.' (*non-specific* apples)

(95) *…..Ali-de *çabuk* iki tane ye-di.
Ali-TOP quickly two CL eat-PAST
'…Ali ate two (apples) quickly.'

As shown in (95), *çabuk* 'quickly' cannot occur to the left of the *iki tane* 'two-CL' phrase. The examples (94) and (95) indicate that *Num-tane* occurs above VP – SpecAspP.

Let us move on to (96). As shown in (96a) below, a noun phrase modified by *Num-tane* cannot be accusative-case marked:

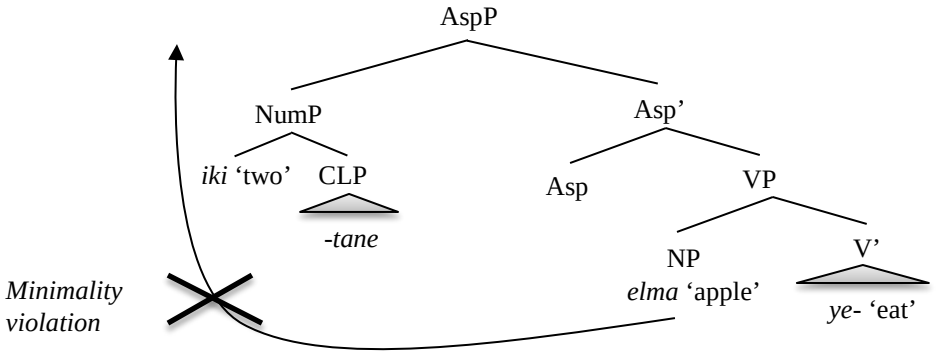
(96) a. *Mehmet iki tane elma-yi ye-di.
Mehmet two CL apple-ACC eat-PAST
'Mehmet ate two apples.'

b. *Mehmet elma-yi iki tane ye-di.
Mehmet apple-ACC two CL eat-PAST

'Mehmet ate two apples.'

Further, as shown in (96b), the accusative-marked object *elma-yi* 'apple-ACC' cannot be scrambled away from *iki tane* 'two-CL'; thus, the object cannot appear to the left of the phrase *iki tane* 'two-CL'. What is clear from the examples (96a) and (96b) is that the *tane* phrase cannot move; it must stay in a particular location. This, in fact, explains why the NP *elma-yi* 'apple-ACC' in (96b) cannot be scrambled (cf. (82) and (83)). The structure (97) summarizes this point:

(97)



Let us suppose that the classifier *tane* occurs in Classifier Phrase (CLP) under NumP (cf. Cheng & Sybesma 1999; Bošković & Şener 2012), as illustrated in (97). As I have claimed in 3.3.2, NumP occurs in SpecAspP, splitting from its associated NP in SpecVP. Thus, NumP embedding CLP appears in SpecAspP, as in (97). Now, I argue that the NP *elma* 'apple' in (97) cannot move to a higher position, crossing NumP in SpecAspP. Assuming that NumP as a nominal phrase has an A-property in SpecAspP (cf. see Section 3.3.2, the discussion of (82) and (83)), I claim that moving the NP *elma* 'apple' and skipping a filled A-specifier creates Minimality effects (Rizzi 1990, 2001). Since SpecAspP is occupied by *iki tane* 'two-CL' in (97), Minimality effects are observed. Here, this violation is observed only when an object is non-case marked, as has also been shown in (82b)/(83) above. We have seen that an object modified by the *tane*-marked

number must be non-specific, occurring within a non-presuppositional domain. Therefore, if NumP (DP) is specific, the classifier *tane* should not appear, as in (98b):

(98) a. *Mehmet iki tane elma-yi ye-di. (=(96a))
Mehmet two CL apple-ACC eat-PAST
'Intended: Mehmet ate two specific apples.'

b. Mehmet iki elma-yi ye-di.
Mehmet two apple-ACC eat-PAST
'Mehmet ate two specific apples.'

In the case of (98b), the accusative-marked object *iki elma-yi* 'two apples-ACC' is specific. As discussed earlier (in Chapter 2), specifics are DPs, and only DPs are raised to satisfy an EPP feature on T. Thus, in (98b), the whole DP *iki elma-yi* 'two apples-ACC' must be moved out of AspP/VP (see also (99b) below).[94] This, again, suggests that non-case marked objects lack DP. As I have argued in 3.3.2, in (98b), NumP and NP resort to forming a constituent to move to a higher position. The strategy shown in (98b) is the only way to receive the grammatical sentence without having the Minimality violation, as illustrated in (99b) below. Since SpecAspP and SpecVP are both filled by PF-visible elements in an accomplishment with a caseless object, a low adverb cannot appear in those specifiers, as shown in (99a):

(99) **Accomplishment**:

a. …[$_{v\text{P}}$ …[$_{\text{AspP}}$ **NumP/QP** [$_{\text{VP}}$ **a bare object** [$_{\text{ResP}}$…]]]] (*non-case marked Obj*)
~~*Low adv.*~~ ~~*Low adv.*~~

b. …[$_{v\text{P}}$ …[$_{\text{AspP}}$ (*Low adv.*) [$_{\text{VP}}$ (*Low adv.*) [$_{\text{ResP}}$…]]]] (*Accusative-marked Obj*)
[DP [NumP/QP [NP]]] (*Move*) (Last resort)

In 3.3.3.2, I will show another piece of evidence that an element associated with Num blocks the presence of a low adverb, which supports the proposal that Num-related elements do occur in SpecAspP (when an object is non-case marked).

[94] Intermediate landing sites are omitted in the illustration (99b). DP possibly touches down on SpecAspP, and then move to Spec*v*P (and to its ultimate landing site).

3.4.2.2 The Plural *–lAr*

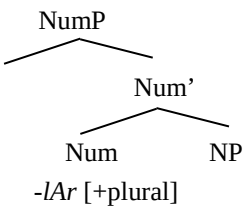
The plural marker *-lAr*[95] can be attached to a nominal phrase. A noun phrase marked with *–lAr* is obligatorily expressed as more than one entity (cf. Göksel & Kerslake 2005). While an accomplishment with a bare object allows low adverb modification (see (74a)), an accomplishment with a bare object marked with the plural marker *–lAr* blocks the occurrence of a low adverb, as shown in (100b):

(100) a. Mehmet çabuk kitap oku-du.
Mehmet quickly book read-PAST
'Mehmet quickly read books/a book.'

b. *Mehmet çabuk kitap-*lar* oku-du.
Mehmet quickly book-PL read-PAST
'Mehmet quickly read books.'

Now it has been proposed that the plural marker *–lAr* is the phonological manifestation of Num^0 [+plural] (e.g. Görgülü 2011):

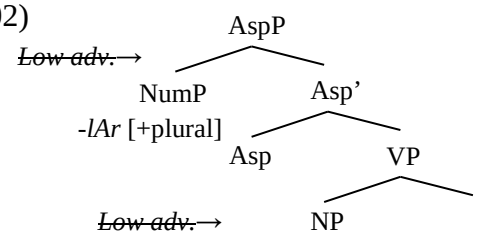
(101)



(modified from Görgülü 2011)

Following the claim that *–lAr* appears on the Num head, I argue that the presence of *–lAr* does block low adverb modification. This can be represented, as in (102):

(102)



Thus, I conclude that once NumP is manifested by some PF-visible content, features on Num are checked against the Asp head and satisfied in SpecAspP (when an object is caseless), which

[95] The plural marker *-lAr* is pronounced (and written) as either *-lar* or *-ler*, due to the vowel harmony.

accordingly makes both SpecAspP and SpecVP occupied. For this reason, there is no space for a low adverb to occupy.

All things considered, it is legitimate to suppose that SpecAspP is occupied by NumP while SpecVP is occupied by NP – both specifiers can be filled at the same time. This has been supported by facts about low adverb modification and classifier/plural marker constructions.

3.5 Summary

In this chapter, I have discussed the possible syntactic structures of dynamic predicates (achievements, accomplishments and activities), reviewing Ramchand's (2008) event structure syntax. I have proposed that there is a structural difference between achievements and accomplishments in Turkish. I further argue that there is an aspectual projection (AspP), which occurs immediately above VP. AspP expresses process which can extend over time; therefore, AspP projects as long as a sentence accepts durational adverbials. In this respect, AspP appears only in accomplishments (and activities), not in achievements. Achievements are punctual events; thus, AspP does not appear.

I also argue that telic predicates have a resultative phrase (ResP) in their structure. Therefore, ResP occurs, as the complement of V, in accomplishments and achievements, but not in activities, though ResP can be added to activities (whose structures lack ResP).

As a crucial support for the structural differences among dynamic predicates proposed in the current study, I demonstrated the behavior of low adverbs, and argued that a low adverb can occur in a structure only when a position is available for low adverbs. Further evidence comes from AspP and its relation to NumP (in accomplishments). When SpecAspP and SpecVP are both occupied, a low adverb cannot occur precisely because there is no space for an adverb to

appear. It has been shown that structures with a low adverb comply the Antisymmetric view of syntax, which I discussed in Chapter 2.

In the next chapter, based on the syntactic structures I have proposed, we will see the syntactic positions of nominals and their interactions with adverbs more closely. Furthermore, the syntactic position of subjects and the relevant prosodic evidence will be discussed in order to provide additional evidence for the structures proposed in this chapter.

CHAPTER 4: SYNTACTIC STRUCTURES OF DYNAMIC PREDICATES AND PROSODIC EVIDENCE

In this chapter, based on the syntactic structures I developed in Chapter 3, I take a closer look at the syntactic locations of adverbials and positions of external arguments. I first examine the relative positions of high and low adverbs both in achievement and accomplishment constructions, and then move on to the syntax-prosody interface account. I also explore where in syntactic structure temporal adverbials such as 'for *x* time' and 'in *x* time' occur. Assuming that sentential stress is syntactically assigned (e.g. Özçelik & Nagai 2011), I demonstrate that prosodic facts presented here become explicable only when the Antisymmetric view of syntax is assumed. It will be shown that prosodic evidence also supports the proposal that phrase structure obeys linearization requirements (i.e. LCA) at PF.

4.1 Aktionsart and adverb placement

Adverb positions have often been employed to determine where nominal arguments are located in syntax (e.g. Diesing 1992). In this section, in order to see where nominal arguments occur in syntax and provide more evidence that the proposed structures of achievements and accomplishments are on the right track, we will examine the relative syntactic positions of low adverbs as well as high adverbs.

As previously discussed in Chapter 3, assuming that adverbs are specifiers (e.g. Kayne 1994), we took a look at the behavior of the low adverb *çabuk* 'quickly' and determined the relative positions for low adverbs: SpecVP or SpecAspP. If this is the case, other (low) adverbs

should behave in the same way; therefore, other adverbs, in addition to *çabuk* 'quickly', will be tested in this section.

The syntactic positions of adverbs would not be completely flexible (i.e. particular sequences of adverbs should be maintained (e.g. Cinque 1999)) (see Chapter 3) though some flexibility is expected in the system. Thus, as I have discussed in Chapter 3, I assume that adverbs of a certain type can occur wherever they can optimally function as long as the structure obeys Antisymmetry. In this respect, it is possible that the same adverb could appear in multiple positions in syntax when allowed. In what follows, I will examine the syntactic positions of low and high adverbs.

4.1.1 Low vs. high adverbs

Let us consider low adverbs first. We take *çabuk* 'quickly' as a low adverb since it can only occur in a *low* position (or a low range) in syntax. Examples are repeated as follows:

(1) a. **Achievement**
*[$_{TP}$ Mehmet [$_{vP}$ … [$_{VP}$ çabuk [$_{VP}$ ödev bitir-di]]]]
Mehmet quickly paper finish-PAST
'Mehmet quickly finished a paper.'

b. **Accomplishment**
[$_{TP}$ Mehmet [$_{vP}$ … [$_{AspP}$ çabuk [$_{Asp'}$ Asp [$_{VP}$ kitap oku-du.]]]]
Mehmet quickly book read-PAST
'Mehmet quickly read a book.'

The example (1a) is ungrammatical since *çabuk* 'quickly' and the internal argument *ödev* 'paper' occur in the specifiers of VP, creating symmetry. This is ruled out, due to a violation of theLCA. In contrast, (1b) is grammatical since there is an aspectual projection (AspP) and SpecAspP is available for *çabuk* 'quickly' to occupy. This is not a fact about one specific adverb. As we will see in the next examples, this phenomenon is observed in a sentence with other low adverbs, too, irrespective of the unaccusativity or transitvity of a verb.

The so-called low adverbs include manner adverbs (e.g. *tightly*), degree/measure adverbs (e.g. *completely*), and Restitutive 'again' (cf. Ernst 2010). As shown in (2), a degree adverb *tamamen* 'completely' and a manner adverb *dikkatli* 'carefully' in Turkish are low adverbs and behave in the same way as *çabuk* 'quickly':

(2) a.*[Mehmet [*tamamen/ dikkatli* [$_{vP}$ ödev-i [$_{VP}$ yaz-dı]]]
Mehmet completely/carefully paper-ACC write-PAST
'Mehmet completely/ carefully wrote the paper.'

b. [Mehmet [*tamamen/ dikkatli* [$_{VP}$ ödev yaz-dı]]]
Mehmet completely/carefully paper write-PAST
'Mehmet completely/ carefully wrote a paper.'

c. [Mehmet [$_{vP}$ ödev-i [*tamamen/ dikkatli* [$_{VP}$ yaz-dı]]]
Mehmet paper-ACC completely/carefully write-PAST
'Mehmet completely/carefully wrote the paper.'

The example (2) is an accomplishment. For other languages, it has be claimed that low adverbs attach to *v*P (e.g. Karimi 2005 for Persian). However, as I have suggested in the previous chapters, the fact that (2a) is ungrammatical is most probably because Turkish low/manner adverbs do not attach to *v*P (at least, low adverbs cannot occur in *v*P when there is an accusative-marked object in Spec*v*P (for LCA reasons)). As shown in (2a), *tamamen* 'completely' and *dikkatli* 'carefully' cannot occur immediately before the accusative-marked object *ödev-i* 'paper-ACC'. But, as long as a low adverb occurs structurally lower than *v*P, the sentence is grammatical, as in (2b) and (2c). High adverbs, on the other hand, behave differently. It is necessary to keep in mind that high adverbs like *muhtemelen* 'probably' can occur immediately before the accusative-marked object. See (3) and (4):

(3) a. Mehmet *muhtemelen* ödev bitir-di (Achievement)
Mehmet probably paper finish-PAST
'Mehmet probably finished a paper.'

b. Mehmet *muhtemelen* ödev-i bitir-di
Mehmet probably paper-ACC finish-PAST
'Mehmet probably finished a paper.'

(4) a. Mehmet *muhtemelen* kitap oku-du (Accomplishment)
Mehmet probably book read-PAST
'Mehmet probably read a book.'

b. Mehmet *muhtemelen* kitab-ı oku-du
Mehmet probably book-ACC read-PAST
'Mehmet probably read the book.'

The fact that the high adverb *muhtemelen* 'probably' can occur to the left of the accusative-marked object, as shown in (3b) and (4b), is due to the fact that the high adverb in this case presumably occurs somewhere above *v*P. It should be noticed that (3a) and (4a) are grammatical, where *muhtemelen* 'probably' appears immediately before the bare internal object *ödev* 'paper' on the surface. The (*a*)-examples are compatible with the assumption that the adverb *muhtemelen* 'probably' occurs in an event-internal (below AspP) position; however, as we will see in the next section, the syntax-prosody interface account shows that the high adverb *muhtemelen* 'probably' occurs outside of the event-internal position, as opposed to low adverbs. I maintain, on the basis of prosodic evidence, that adverbs like *muhtemelen* 'probably' are *high* adverbs since they cannot occur in low positions in syntax; therefore, there is no LCA violation in sentences like (3a) and (4a). Evidence from prosody will be presented in the next section 4.2.

Turning back to sentences with low adverbs, we will see that the difference between high adverbs and low adverbs is clear, in terms of their grammaticality. The assumption is that a low adverb occurs only in the low range (AspP and VP). Let us first consider intransitives:

Intransitives (Unaccusatives)

(5) a. [$_{TP}$ araba … [$_{VP}$ tamamen [$_{V'}$ dur-du]]] (Achievement)
car completely stop-PAST
'The car completely stopped.'

b. *[$_{VP}$ tamamen [$_{VP}$ araba [$_{V'}$ dur-du]]]
completely car stop-PAST
'A car completely stopped.'

(6) a. [$_{TP}$ cam … [$_{VP}$ tamamen [$_{V'}$ kır-ıl-dı]]] (Achievement)
glass completely break-PASS-PAST
'The glass completely broke.'

b. *[$_{VP}$ tamamen [$_{VP}$ cam [$_{V'}$ kır-ıl-dı]]]
completely glass break-PASS-PAST
'A glass completely broke.'

(7) a. [$_{TP}$ Hastalık … [$_{VP}$ çabuk yayıl-dı]] (Accomplishment)
disease quickly spread-PAST
'The disease quickly spread.'

b. $^{(?)}$[$_{AspP/VP}$ Çabuk [$_{V'}$ hastalık yayıl-dı]]
quickly disease spread-PAST
'A disease quickly spread.'

In unaccusative achievements, the low adverb *tamamen* 'completely' cannot occur in a sentence with a bare noun phrase. As shown in (5b) and (6b), such a sentence is ungrammatical. As in (7b), an unaccusative accomplishment with a bare noun phrase allows low adverb modification; thus, a sentence like (7b) is grammatical though the degree of the acceptability of (7b) somewhat varies depending on speakers of Turkish. All the (*a*)-examples are grammatical since a bare noun phrase (object) is in sentence-initial position (i.e. the structural subject position in SpecTP) and symmetry is not created at the edge of VP.

Let us proceed to transitives:

Transitives (Achievements)

(8) a. [$_{TP}$ Mehmet [$_{v}$P araba-yı [$_{VP}$ tamamen durdur-du]]]
Mehmet car-ACC completely stop-PAST
'Mehmet completely stopped the car.'

b. *[$_{TP}$ Mehmet [$_{v}$P…[$_{VP}$ tamamen araba durdur-du]]]
Mehmet completely car stop-PAST
'Mehmet completely stopped the car.'

(9) a. [$_{TP}$ Mehmet [$_{v}$P cam-ı [$_{VP}$ tamamen kır-dı]]]
Mehmet glass-ACC completely break-PAST
'Mehmet completely broke the glass.'

b. *[$_{TP}$ Mehmet [$_{v}$P…[$_{VP}$ tamamen cam kır-dı]]]
Mehmet completely glass break-PAST
'Mehmet completely broke a glass.'

(10) a. [$_{TP}$ Mehmet [$_{v}$P ödev-i [$_{VP}$ tamamen bitir-di]]]
Mehmet paper-ACC completely finish-PAST
'Mehmet completely finished a paper.'

b. *[$_{TP}$ Mehmet [$_{vP}$…[$_{VP}$ tamamen ödev bitir-di]]]
Mehmet completely paper finish-PAST
'Mehmet completely finished a paper.'

As we have seen in (3) and (4) above, the same pattern can be observed in transitive achievements, too. In (8) – (10), the (*b*)-examples are ungrammatical. That is, when a sentence contains a bare internal object, a low adverb cannot occur.

Transitive accomplishments again pattern with their unaccusative counterparts.

Transitives (Accomplishments)

(11) a. [$_{TP}$ Mehmet [$_{vP}$ ödev-i [$_{AspP}$ [$_{VP}$ tamamen yaz-dı]]]
Mehmet paper-ACC completely write-PAST
'Mehmet completely wrote the paper.'

b. [$_{TP}$ Mehmet [$_{vP}$ …[$_{AspP}$ tamamen [$_{VP}$ ödev yaz-dı]]]
Mehmet completely paper write-PAST
'Mehmet completely wrote a paper.'

(12) a. [$_{TP}$ Mehmet [$_{vP}$ …[$_{AspP}$ dikkatli [$_{VP}$ kitap oku-du]]]
Mehmet carefully book read-PAST
'Mehmet carefully read a book.'

b. [$_{TP}$ Mehmet [$_{vP}$ kitab-ı [$_{AspP}$ [$_{VP}$ dikkatli oku-du]]]
Mehmet book-ACC carefully read-PAST
'Mehmet carefully read the book.'

As can be seen in (11) – (12), all the (*a*)-examples in which a sentence contains a low adverb and a bare internal object are grammatical since the position of a low adverb is available; the structure does not violate LCA requirements.

Based on the observations drawn from the data above, I conclude that Turkish low adverbs can occur in SpecAspP or SpecVP, but not in SpecTP and above.

4.1.2 Summary

To recap, I have posited the (relative) syntactic positions for high and low adverbs. The summary is sketched below in (13):

(13) a. LOW ADVERB

[$_{TP}$ ~~low adverb~~ [$_{vP}$ (low adverb) [$_{AspP}$ low adverb [$_{VP}$ low adverb]]]]

b. HIGH ADVERB

[$_{XP}$ high adverb [$_{TP}$ high adverb [$_{vP}$ ~~high adverb~~ [$_{AspP}$ ~~high adverb~~ [$_{VP}$ ~~high adverb~~]]]]

4.2 Evidence from prosody: The syntax-prosody interface in Turkish[96]

To further support the syntactic structures proposed in Chapter 3, I provide evidence from the syntax-prosody interface in this section. In order to show the syntactic positions of nominal positions and adverbials, it would be useful to integrate prosodic accounts into the syntactic clause architecture. The prosodic data presented here is very crucial since only a (weak) view of Antisymmetric syntax (Moro 2000) allows the prosodic facts mentioned here to be explained. In other words, it will be shown that Turkish prosody *reflects* an Antisymmetric syntax. In Nagai and Özçelik (2012), it was proposed that the structural difference between achievements and accomplishments reflects their prosodic phrasing, where structure obeys linearization requirements.[97] Following Nagai and Özçelik's (2012) assumptions, I will demonstrate how the syntactic structures I am proposing are supported by prosodic facts. This in return reveals that multiple specifiers are not allowed (at PF), following the Antisymmetric view of syntax.

To demonstrate how prosodic phrasing and the syntax-prosody interface work in Turkish, I first review a brief background on Prosodic Phonology and Turkish prosody based on Özçelik and Nagai (2011), showing the correlation between prosodic phrasing and syntactic structures both for unaccusatives and unergatives. I then present how the proposed syntactic structures correspond to their prosodic phrasing.

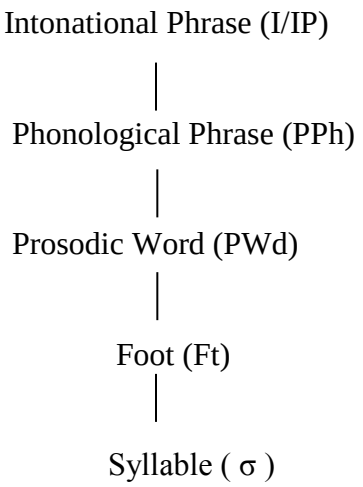
4.2.1 Prosodic Phonology

It is a well-known fact that syntactic structure affects prosodic structure above the word level, and I will show that this is true also of the Turkish structures. Prosodic constituents are typically

[96] Most of the discussions and analyses in this section have previously been published in Nagai and Özçelik (2012).
[97] The syntactic structures proposed in this dissertation are slightly modified from what is proposed in Nagai and Özçelik (2012) though the core idea remains the same.

assumed to be organized into a hierarchy (e.g. Selkirk 1984, 1986; Nespor & Vogel 1986), as in (14):

(14)



Sounds are organized into syllables, syllables into feet, feet into prosodic words (PWds), PWds into phonological phrases (PPhs), and PPhs into intonational phrases (I/IP's). Languages tend to respect the "strict layering" of these constituents (Selkirk 1984, 1986) though this can be violated under certain well-defined circumstances (e.g. Selkirk 1995). In the present study, I focus only on higher-level prosodic constituents, i.e. the PWd, PPh and IP, in (14). Notice here that PPhs are associated with syntactic phrases (XPs) and I/IP's (mostly) with syntactic clauses, which seems to hold true for Turkish, too (Özçelik & Nagai 2011).

4.2.2 Turkish Prosody

Let us now look at Turkish prosody. First, consider (15):

(15) O adam
that man
'that man' or 'That is a man.' (Özçelik & Nagai 2011)

In (15), the two words *o adam* can be interpreted as either *that man* or *that is a man*. Though the surface order does not exhibit any differences, it is very important to see prosodic phrasing since the two different interpretations come from the two different prosodic structures.

In Turkish, phrase level stress/prominence is assigned to the leftmost PWd level stress (i.e. **PPh head= leftmost PWd**) (Kabak & Vogel 2001; Özçelik & Nagai 2011), which is indicated with italics in (16)[98]:

(16) a. [[***ó***]$_{PWd}$ [adám]$_{PWd}$]PPh[99] b. [[***ó***]$_{PWd}$]PPh c. [[***adám***]$_{PWd}$]PPh
that man that man
'that man' 'that' 'man'

If this is the only utterance in context (see (16b, c)), I-level stress/prominence will also naturally fall on the head of this PPh:

(17) a. [[***ó*** adám]PPh]I b. [[***ó***]PPh]I c. [[***adám***]PPh]I
that man that man
'that man' 'that' 'man'

Now, let us consider the case when there is more than one PPh in an utterance. The question here is which PPh would be the head of the I-Phrase in such cases. Suppose that the PPh in Turkish corresponds roughly to a syntactic phrase (XP) (Kabak & Vogel 2001; Özçelik & Nagai 2011), as with most languages; the key to answering this question lies in constructions that have more than one syntactic XP. See (18) and (19) below. (18) and (19) differ in prosody though they look alike on the surface:[100]

(18) a. [[***o*** adam]PPh]I b. [$_{D/NP}$ o adam][101]
that man that man
'that man' 'that man'

[98] PWd-level stress is indicated with an acute accent. It falls almost always on the final syllable of PWds (though there are exceptions – see e.g. van der Hulst & van de Weijer 1991; Inkleas & Orgun 1998; Kabak & Vogel 2001; Özçelik 2009, 2011).

[99] It seems that a single (C)V syllable can be prosodified in Turkish (Özçelik 2011). Thus, Turkish does not seem to have a Minimal Word requirement. This is likely because most words in Turkish, including content words, do not have foot structure (see Özçelik 2009, 2011 for more on this and for the argument that a PWd directly dominates a σ in Turkish).

[100] It could be the case that (19) ends in a null copula (cf. Kornfilt 1997).

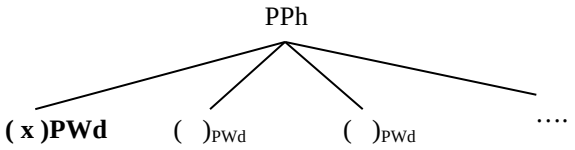
[101] Here, it might be the case that the demonstrative *o* 'that' in Turkish occurs in DP (or some functional projection) higher than NP. If the demonstrative *o* 'that' is phrasal and occurs in SpecDP (cf. Bernstein 1997), one might claim that [*o adam*] involves more than one syntactic XP (e.g. DemP and NP) (such as [DP [DemP *o*] [D' [NP *adam*]]]). Though prosodic phrasing within DP-layers in Turkish needs more investigation, what the examples (18) and (19) show is the contrast between a (noun) phrase and a clause (a complement of CP or the spell-out domain of CP (cf. Rizzi 1997; Chomsky 2001)).

(19) a. [[***o***]PPh [***adam***]PPh]I
that man
'That is a/the man.'

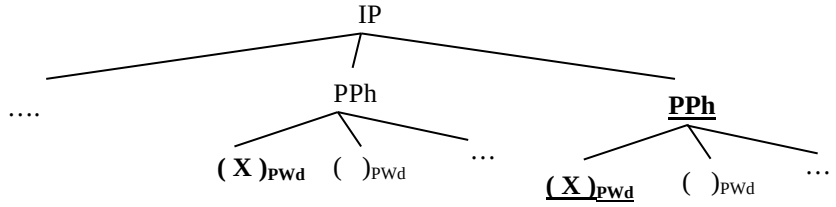
b. [$_{TP}$ [$_{DP}$ o] [$_{T'}$ T… [$_{D/NP}$ adam]]
that man(-COP)
'That is a/the man.'

In (18a), there is only one PPh. In (19a), on the other hand, there are two PPhs which both bear their own PPh-level stress, creating two stressed elements in the sentence. Out of these two PPhs, the second is chosen for main I-phrase level stress, which gets slightly more stress than the first one (the I-head in (19a) is underlined). That is, the head of an *I* in Turkish is the rightmost PPh (**i.e. I-head = rightmost PPh**) (Özçelik & Nagai 2011). The crucial point here is that *o* 'that' is NOT in the same PPh as *adam* in (19a). This exactly corresponds to the syntactic clause in (19b), in which *o* 'that' occurs somewhere higher than the nominal projection [$_{D/NP}$ *adam*] 'man'. Here, I rely on the following description in (20) for higher level prosodic phrasing in Turkish:

(20) a. The head of a PPh in Turkish is the leftmost PWd (indicated in boldface) (Kabak & Vogel 2001):



b. The head of an I-phrase in Turkish is the rightmost PPh (the rightmost underlined word) (Özçelik & Nagai 2011):



4.2.3 Unaccusatives vs. Unergatives (Özçelik & Nagai 2011)

On the basis of the definition of Turkish prosody in (18), Özçelik and Nagai (2011) propose that the syntactic positions for indefinite/non-specific and definite/specific bare subjects in Turkish directly interact with prosodic phrasing. Let us first discuss unaccusatives. The examples (21a)

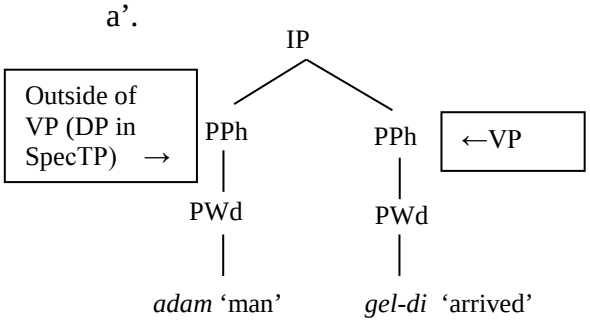
and (21b) look exactly the same on the surface; however, there are two different readings, as we have discussed in Chapter 2. Depending on the interpretation of a bare subject, prosodic structures between (21a,a') and (21b,b') appear differently:[102]

(21) **UNACCUSATIVE** : *adam geldi* 'a/the man arrived'

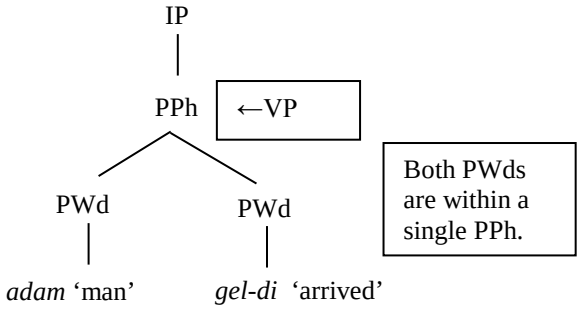
a. [[**Adám**]PPh [**gel-dí**]PPh]I
man arrive-PAST
'The man arrived.'

b. [[**Adám** gel-dí]PPh]I
man arrive-PAST
'A man arrived.

a'.



b'.



As proposed previously on purely syntactic grounds (e.g. Kornfilt 1984), Turkish definite/specific and indefinite/non-specific subjects occupy different positions in syntax (though Kornfilt did not specify whether they are always in different positions and which positions exactly these are). There also seems to be prosodic evidence for this, given Özçelik and Nagai's (2011) account: While in (21a,a'), the prosodic structure is composed of two PPhs, in (21b,b'), only one PPh is created. In (19a), both the subject and the predicate are stressed since both PWds are, at the same time, heads of a PPh. The verb *geldi* 'arrived' in (21a) bears slightly more stress than the subject *adam* 'man' though, for this PPh is also the head of the I, since the rightmost PPh is the head of an I in Turkish, as mentioned in (20). In (21b,b'), on the other hand, only the subject *adam* 'man' is stressed, for there is only one PPh, and the subject is the head of this PPh, since it is the first PWd within the PPh, by the definition (20). Further, since this is the only PPh

[102] The data indicate default stress in neutral sentences, for which the Context Question is: "What happened?"

within I, it is also the head of that I – it is the rightmost (as well as the leftmost) PPh within that I. Thus, the subject in (21b,b') gets both PPh- and I- level stress.

Based on the facts shown in (21), Özçelik and Nagai (2011) develop a prosodic account supporting the syntactic argument that definite and indefinite arguments occur in different syntactic positions (e.g. Kornfilt 1984; Zidani-Eroğlu 1997). They demonstrate that the definite *adam* 'man' in (22) must be external to the root-VP in syntax (thus creating its own phonological phrasal domain) whereas the indefinite *adam* 'man' has to remain within the same projection as the verb (thus sharing the same phonological phrase with it). Now let us move to unergatives. These present further evidence that there is a strong correlation between the syntactic phrasal domain (where a nominative subject appears) and the prosodic phonological phrasal domain. Consider first the unergatives in (22) and (23):

UNERGATIVES:

(22) a. [[**Adám**]PPh [**gül-dú**]PPh]I
man laugh-PAST
'The man laughed.'

b. *[[**Adám** gül-dú]PPh]I
man laugh-PAST
'Intended: A man laughed.'

(23) a. [[**Çocúk**]PPh [**uyu-dú**]PPh]I
child sleep-PAST
'The child slept.'

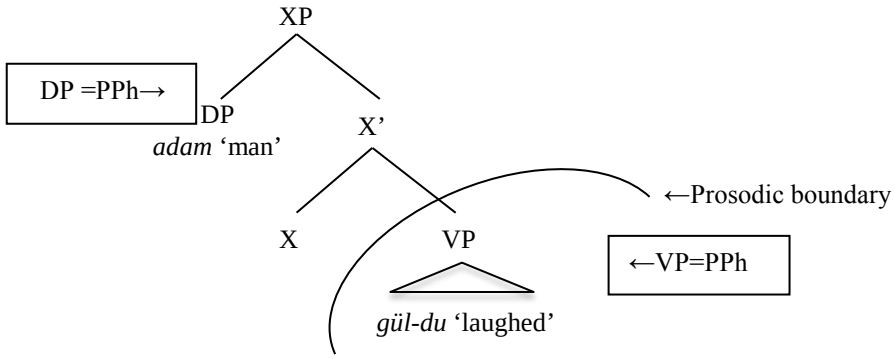
b. *[[**Çocúk** uyu-dú]PPh]I
child sleep-PAST
'Intended: A child slept."
(modified from Özçelik & Nagai 2011)

The sentences in (22a) and (22a) are grammatical since the definite/specific nominatives, *adam* 'man' and *çocuk* 'child', respectively, are outside of *v*/VP (thus creating their own separate phonological phrases). In contrast, (23b) and (23b) are not grammatical[103] since the indefinite reading is possible only for an internal argument of the verb, but the nominative subject cannot be an internal argument of these verbs (and cannot thus stay within the same phonological domain as the verb). These facts follow directly from the standard syntactic assumption that

[103] Readers might wonder how a sentence like "*A man laughed*" (i.e. an indefinite subject + an unergative verb) can be expressed in Turkish. In Turkish, there is no way to utter such a meaning with a single sentence "*A man laughed*". One strategy to express it would be something like: "There was *a man*. (And he) laughed." (See Chapter 2).

subjects of unergative verbs as well as transitive verbs have to be external, introduced by a functional head such as *v* or Voice[104] (e.g. Chomsky 1995; Kratzer 1996). The facts shown in (22) and (23) are not surprising, then, if the subject of an unergative verb cannot be projected as its complement. As Özçelik and Nagai (2011) point out, the decision as to which element to stress in a Turkish sentence does not follow merely from a prosodic strategy (one which, for example, says "Stress only the subject to create an indefinite subject interpretation"), but clearly has a syntactic reason. Otherwise, (22b) and (23b) would be perfectly grammatical, as with (22a) and (23a). The syntactic structure of unergatives can be sketched as in (24):

(24) (=(22a))



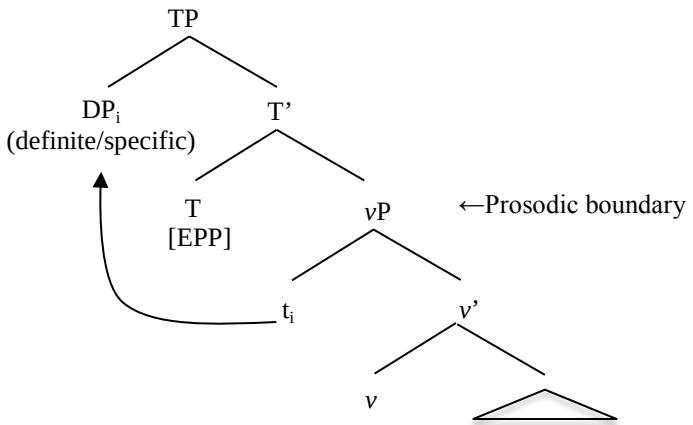
In (24), definite/specific DPs must occur above the VP-projection (whereas indefinite DPs must occur within the VP) (Özçelik & Nagai 2011).

In Özçelik and Nagai's (2011) account, it is simply assumed that the definite/specific DP in unergatives must move to SpecTP for EPP reasons without providing sufficient detail. Since prosody does not identify syntactic PF-invisible elements such as traces/PRO/pro and phonologically unpronounced functional heads, it is not clear exactly what the syntactic category 'XP' in (24) should be; it can be *v*P or TP (or even higher than TP). Here, I assume that XP in (24) is *v*P. To put it more concretely, I assume that the definite *adam* 'man' is base-generated in Spec*v*P and then moves into SpecTP, as discussed in Chapter 2. First, this idea comes from

[104] This can be *v** in Chomsky's (2001) sense (i.e. a (strong) phase-head).

prosodic facts of transitive constructions (which we will see later), in which an indefinite/non-specific subject of a transitive verb stays in Spec*v*P while a definite/specific subject cannot stay in its base position, moving out of *v*P. Cagri (2004) shows that arguments that receive a definite/specific interpretation *cannot* remain in their base position (see also Kennelly 1994, reaching the same conclusion on different grounds). On the basis of the data from the structures of relative clauses in Turkish (and *wh*-constructions in Turkish), Cagri (2004) comes to the conclusion that T has an EPP feature that triggers obligatory movement of DP subjects of transitives and unergatives (i.e. definite/specific external arguments) to SpecTP (see Chapter 2). Adopting the assumption that D is associated with definiteness (Chomsky 1995), Cagri argues that in Turkish only a D feature on DP, not NP (with an indefinite/non-specific interpretation), can satisfy EPP on T. If this is the case, the definite/specific subject of an unergative (and a transitive) in (24) receives stress in SpecTP, as a result of movement from its base-position, Spec*v*P. The head *v* is not phonologically overt; therefore, it is not detected in prosodic structure. Modifying the structure (24), I postulate the following syntactic structure of an unergative (as well as a transitive), as in (25) (structures above TP and under *v*P are omitted) (which I have already indicated in Chapter 2):

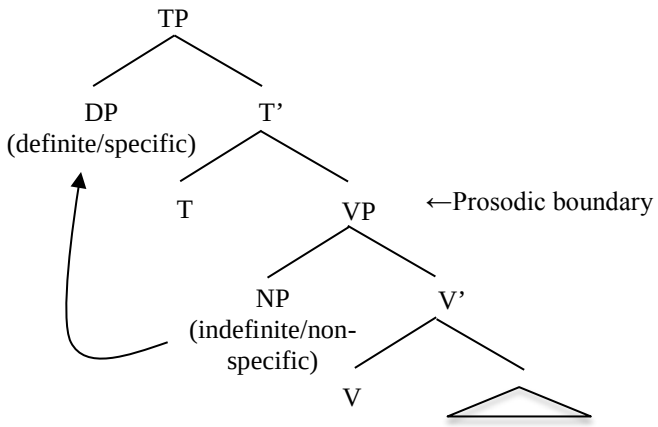
(25) EXTERNAL ARGUMENT OF UNERGATIVES/TRANSITIVES



The DP movement I assume here is not for the purpose of getting the definite/specific interpretation. Rather, DP moves to SpecTP due to a formal syntactic requirement. As discussed in Chapter 2, a definite/specific DP can further move into SpecTopP once it satisfies EPP on T.

As for unaccusatives, based on Özçelik and Nagai's (2011) account and what is discussed on unergatives above, I postulate the syntactic structure of an unaccusative, as follows:

(26) ARGUMENT (STRUCTURAL SUBJECT) OF UNACCUSATIVES



In the case of unaccusatives, we saw that there are two different prosodic structures (see (21)): one for a definite/specific subject and one for an indefinite/non-specific subject. When the internal argument of an unaccusative is an NP that has indefinite/non-specific interpretation, it remains in SpecVP[105] since only DP can satisfy EPP requirements[106] on T (Cagri 2004), as illustrated in (26). When an indefinite/non-specific NP appears in a sentence, I assume that TP still projects, though SpecTP would not appear in such a case.

Based on the structures shown in (25) and (26), I will now discuss the syntactic structures of transitive sentences in the next section 4.3.

[105] I do not posit a defective/weak phase *v*P for unaccusatives (cf. Chomsky 2001); thus, TP projects directly on the top of VP, as presented in (26).

[106] As I have discussed in Chapter 2, I assume that assignment of EPP on T is *obligatory* (in Turkish). There are two ways to satisfy EPP features: (*i*) DP movement to SpecTP; (*ii*) inserting a silent stage topic in SpecTP. Notice that prosodic phrasing is not sensitive to silent materials in syntax.

4.3 Subjects: Evidence for Antisymmetry

4.3.1 Overview: Where is a phonological boundary?

Extending Özçelik & Nagai (2011), Nagai (2010) and Nagai & Özçelik (2011, 2012) and examining prosodic phrasing for sentences containing a low adverb (and a high adverb), I will provide a more refined analysis of Turkish syntax in this section.

If our syntax-prosody interface account regarding unaccusatives and unergatives discussed above is correct, it should be able to correctly predict the prosodic structure of transitive constructions, too. The following examples illustrate this point, and show that the prediction is borne out. See accomplishments:

(27) a. ?[**AspP** [**VP** çabuk [**V'** hastalık yayıl-dı]] (Unaccusative accomplishment)
quickly disease spread-PAST
'A disease quickly spread.'

b. [[**AspP** **çabuk** hastalık yayıl-dı]PPh]I
quickly disease spread-PAST
'A disease quickly spread.'

(28) a. [**TP** Mehmet [**vP/AspP** çabuk [**VP** kitap oku-du]]] (Transitive accomplishment)
Mehmet quickly book read-PAST
'Mehmet quickly read a book.'

b. [[**Mehmet**]PPh [**vP/AspP** **çabuk** kitap oku-du]PPh]I
Mehmet quickly book read-PAST
'Mehmet quickly read a book.'

In (27) and (28), the adverb *çabuk* 'quickly' occurs immediately before the indefinite object *kitap* 'book' and appears within the same phonological phrase as the verb, as illustrated in (27b) and (28b). I have already argued that low adverbs occur in the low range (AspP, VP) (i.e. syntactic projections below *v*P), and that in an accomplishment with a bare internal object, a low adverb occurs in SpecAspP. Then it is possible to suppose that *çabuk* 'quickly' in SpecAspP receives PPh-level stress in (27b) and (28b). A similar account is proposed by Kahnemuyipour (2004), in which the phonological boundary is assumed to be (at the edge of) AspP:

(29) …[*v*P [AspP **Spec** [VP]]]

Prosodic boundary (the rightmost PPh) (Stress Domain)

(adopted from Kahnemuyipour 2003, 2004)

Within a Stress Domain[107] (or the spell-out domain of a phase), the highest phrase within this stress domain receives stress (see e.g. Kahnemuyipour 2004; Selkirk & Kratzer 2005; Kratzer & Selkirk 2007). It can be assumed that the Stress Domain illustrated in (29) corresponds to the rightmost PPh (which is indicated in the description (20)). Therefore, if some PF-visible element (such as a low adverb) occurs in SpecAspP, it receives PPh-level stress there, as shown in (29). However, I will relax this view and propose that the prosodic boundary is (the edge of) *v*P, not AspP, in the case of Turkish. Consider (30), repeated from (28):

(30) [[**Mehmet**]PPh [$_{vP/AspP}$ **çabuk** kitap oku-du]PPh]I (=(28b))
Mehmet quickly book read-PAST
'Mehmet quickly read a book.'

As can be seen in (30), there is a *v*P-projection immediately above AspP in transitive constructions. Therefore, the edge of *v*P can potentially be a prosodic boundary. In the next subsection 4.3.2, I will show that this is the case in Turkish, by looking at the syntactic position of an external argument.

4.3.2 (Re-)Considering phonological boundary: Syntax-semantics-prosody interface

As mentioned earlier, the subject in Turkish is morphologically unmarked. We have seen the subject of unaccusatives and unergatives so far. Further, for subjects of unaccusatives, we have shown that indefinites remain in AspP/VP while definites move out of VP, and that Antisymmetry is respected. This has also been supported by prosody. Our next concern is the subject of transitives. Under the current proposal, no symmetry should be created on the edge of

[107] Kahnemuyipour (2004) calls it "SPELLEE".

a syntactic projection. We will see, as illustrated below, that as long as no symmetry is created at the edge of each clause, the sentence is grammatical:

(31) $[_{TP}$ kız$_i$ $[_{T'}$ $[_{vP}$ t$_i$ $[_{v'}$ $[_{AspP}$ $[_{VP}$ kitap oku-du]]]]]]

girl book read-PAST
'The girl read a book.'

In (31), the external subject *kız* 'girl' is definite/specific and the internal argument *kitap* 'book' is indefinite/non-specific. As I have proposed earlier, the indefinite/non-specific *kitap* 'book' occurs in SpecVP. As I have mentioned in Chapter 2, I assume that a definite/specific subject is generated in Spec*v*P and moves to SpecTP for EPP reasons, as illustrated in (31). If a non-specific subject remains in Spec*v*P, the sentence is not grammatical, as shown in (32):[108]

(32) $^{??/*}[_{TP}$ $[_{T'}$ $[_{vP}$ kız $[_{v'}$ $[_{AspP}$ $[_{VP}$ kitap oku-du]]]]]

girl book read-PAST
'Intended: A girl read a book.'

In Turkish, it is well known that a pre-verbal position is the domain of non-presuppositional/focus (or non-specific) interpretations (e.g. Ketrez 2005), as has been discussed in Chapter 2. For a noun phrase to receive a non-presuppositional/non-specific (or focus) interpretation, it *must be* adjacent to a verb. This constraint can be associated with the interaction between syntax and information structure in Turkish. That is, a noun phrase that appears in a particular syntactic position/domain is interpreted as a topic, a focus, and so on, within a discourse context. In the case of Turkish, word order (the syntactic position of a noun phrase) and prosody play a crucial role to signal information structure (e.g. İşsever 2003; Ketrez 2005; among others). While there are some variations across languages, Turkish is a type of language

[108] Most informants do not seem to get the indefinite/non-specific interpretation of the subject *kız* 'girl' in (32). The indefinite/non-specific interpretation seems available only in a limited/special context (or by force). Native speakers of Turkish naturally interpret the subject *kız* 'girl' in (32) as definite/specific. Thus, I consider the example (32) ungrammatical. As I mention shortly, this would be attributed to the generalization that two DP arguments cannot remain within *v*P – one of them must move outside of *v*P (Alexiadou and Anagnostopoulou 2001).

in which topics appear in sentence-initial position, foci appear in pre-verbal position,[109] and background information appears post-verbally.[110] Now, a sentence like (32) above is not acceptable due to two non-specific noun phrases within the same syntactic/non-presuppositional (or focus) domain. The subject *kız* 'girl' in (32) cannot receive the non-presuppositional/non-specific reading in this position since the indefinite object *kitap* 'book' already occupies the pre-verbal position. In the case of (32), if the sentence-initial subject is outside of the non-presuppositional domain (i.e. outside of *v*P) and becomes more discourse-prominent (than the object), the sentence becomes grammatical. This ungrammatical structure (32) also follows Alexiadou and Anagnostopoulou's (2001) generalization that two DPs cannot both remain within *v*P; that is, whenever a subject and an object appear in a sentence, one of the DP arguments *must* always vacate the *v*P. This suggests that Turkish does not have the equivalent of transitive exlpletive constructions, in which the structural subject position (SpecTP) is plugged by an expletive and all the arguments of the verb remain within *v*P.[111]

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[109] Therefore, it is very important to see the location of default stress in neutral sentences, which I have shown by setting the Context Question "What happened?" (see 4.2.3). The default stress reflects where DPs are located in syntactic structure (cf. Kratzer & Selkirk 2007). See (i) and (ii):

(i) Q: What happened?
A: [[**adam**]PPh [**kitab-ı**]PPh [**oku-du**]PPh]I
man book-ACC read-PAST
'The man read the book.'

(ii) Q: What did the man read?
A: [[**adam**]PPh [**kitab-ı** oku-du]PPh]I (*kitab-ı* 'book-ACC' **– focused)**
man book-ACC read-PAST
'It is the book that the man read.'

As shown in (i) and (ii), stress assignment is different between default stress vs. focus stress. If the location of default stress were not carefully examined, prosodic phrasing does not show the difference between (ii) and (iii):

(iii) Q: What happened?
A: [[**adam**]PPh [**kitap** oku-du]PPh]I
man book read-PAST
'The man read a book/books.'

Thus, examining the location of default stress, independently of 'focused' constituents, is crucial; the syntactic position of DP would not otherwise be able to be predicted correctly.

[110] It should be noted that the definite/specifc DPs (but not indefinite/non-specific DPs) in Turkish can occur post-verbally – these DPs express background information (cf. Kural 1997) (though I do not focus on post-verbal DPs in this dissertation). A language like Hindi/Urdu (e.g. Butt & King 1996) shows a similar information structure status.

[111] For instance, see the Dutch example (i):

(i) Er heeft [*v*P een man een appel gegeten]

The contrast between (31) and (32) can also be shown by prosodic phrasing:

(33) a. [[**kız**]PPh [**kitap** oku-du]PPh]I (= (31))
girl book read-PAST
'The girl read a book.'

b. ??/*[[**kız** kitap oku-du]PPh]I (= (32))
girl book read-PAST
'Intended: A girl read a book.'

As in (33a), when the subject creates its own PPh, it must be definite/specific. In this respect, the information structure (the topic (presuppositional)–focus (non-presuppositional) distinction) forces the subject in (32)/(33b) to be more prominent (or more definite/specific) than the object, which would lead to a felicitous interpretation (such as (33a)).

Let us move onto (34). As shown in (34), the subject *kız* 'girl' cannot get the indefinite/non-specific interpretation:

(34) a. *[$_{TP}$ [$_{T'}$ [$_{vP}$ kız [$_{vP}$ kitab-ı$_j$ [$_{v'}$ [$_{AspP}$ [$_{VP}$ t$_j$ oku-du]]]]]]]

girl book-ACC read-PAST
'Intended: A girl read the book.'

← Symmetry is not allowed due to a violation of LCA. Hence, this is ungrammatical.

b. *[[**kız** kitab-ı oku-du]PPh]I
girl book-ACC read-PAST
'Intended: A girl read the book.'

I argue that the example (34) is ungrammatical because symmetry is created at the edge of *v*P. Now, given the discussion about the ungrammatical sentence (32)/(33b) above, one way to explain the ungrammaticality of (34) is that an accusative-marked object cannot be non-presuppositional. In other words, presuppositional (or definite/specific) objects should avoid occupying the pre-verbal position where only non-presuppositional nominals occur; therefore, the accusative-marked *kitab-ı* 'book-ACC' cannot occur in the pre-verbal position in (34). However, such an explanation is not sufficient since a sentence like (35) is grammatical:

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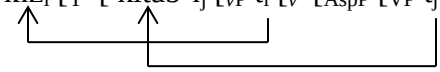
there has an man an apple eaten
'There has a man apple eaten.' (A man has eaten an apple.)

(35) Kız kitab-ı oku-du.
girl book-ACC read-PAST
'The girl read the book.'

Notice that the subject *kız* 'girl' is definite in (35), unlike in (34). The sentence is perfectly grammatical. I posit the following syntactic structure for (36):

(36) a. [$_{YP}$ kız$_i$ [$_{Y'}$ [kitab-ı$_j$ [$_{vP}$ t$_i$ [$_{v'}$ [$_{AspP}$ [$_{VP}$ t$_j$ oku-du]]]]]]]



girl book-ACC read-PAST
'The girl read the book.'

b. [[**kız**]PPh [**kitab-ı**]PPh [**oku-du**]PPh]I
girl book-ACC read-PAST
'The girl read the book.'

In (36), I assume that the external argument *kız* 'girl' is moved out of Spec*v*P. As can be seen, the accusative-marked *kitab-ı* 'book-ACC' occurs in a pre-verbal position. As Ketrez (2005) mentions, the pre-verbal position does not need to be within VP. As long as the position is adjacent to V on the surface word order, it is possible for a nominal to receive an indefinite/non-specific interpretation. Therefore, although the accusative-marked *kitab-ı* 'book-ACC' occurs in *v*P, it can still be considered to occur in the pre-verbal position since the object and the verb are adjacent to each other on the surface. The immediate question, though, is whether in syntax there is a particular boundary between presuppositional and non-presuppositional domains which can be associated with the syntax-prosodic boundary. Before delving into this issue, let us examine why the example in (36) is grammatical. Consider once again (34) and (35)/(36), repeated as (37) and (38):

(37) *[$_{YP}$ [$_{Y'}$ [$_{\underline{\textbf{\textit{v}P}}}$ kız [$_{\underline{\textbf{\textit{v}P}}}$ kitab-ı$_j$ [$_{v'}$ [$_{AspP}$ [$_{VP}$ t$_j$ oku-du]]]]]]] (=(34a))

girl book-ACC read-PAST

'Intended: A girl read the book.'

(38) [$_{YP}$ kız$_i$ [$_{Y'}$ [$_{vP}$ kitab-ı$_j$ [$_{vP}$ t$_i$ [$_{v'}$ [$_{AspP}$ [$_{VP}$ t$_j$ oku-du]]]]]]] (=(36a))

girl book-ACC read-PAST

'The girl read the book.'

In both (37) and (38), the accusative-marked *kitab-ı* 'book-ACC' gets a definite/specific interpretation. Although in both (37) and (38), *kitab-ı* 'book-ACC' occurs pre-verbally, (38) is grammatical while (37) is ungrammatical. As illustrated in (37) above, the problem would be that the base-generated subject *kız* 'girl' and the moved object *kitab-ı* 'book-ACC' are in fact in the specifiers of *v*P. My conclusion here is that (37) is ruled out, due to a violation of the LCA at PF. In contrast, there is no LCA violation in (38) since no symmetry is created at the edge of *v*P. The prosodic phrasing in (34b) and (36b) also shows the contrast.

Now we must investigate whether the ungrammatical sentence (37) can be saved and whether the intended interpretation can obtain. As shown in (39), scrambling the accusative-marked object is the only way for the subject *kız* 'girl' to obtain the indefinite/non-specific interpretation:

(39) [$_{TP}$ kitab-ı$_j$ [$_{T'}$ [$_{vP}$ kız [$_{vP}$ t$_j$ [$_{v'}$ [$_{VP}$ t$_j$ oku-du]]]]]]

girl book-ACC read-PAST

'A girl read the book.'

In (39), the subject *kız* 'girl' remains in Spec*v*P, and the accusative-marked object moves further to SpecTP (or higher). In this case, the subject can receive the indefinite/non-specific reading in a preverbal, non-presuppositional position. This is the strategy to save the ungrammatical sentence (36). Let us now consider the prosodic phrasing (40) corresponding to (39):

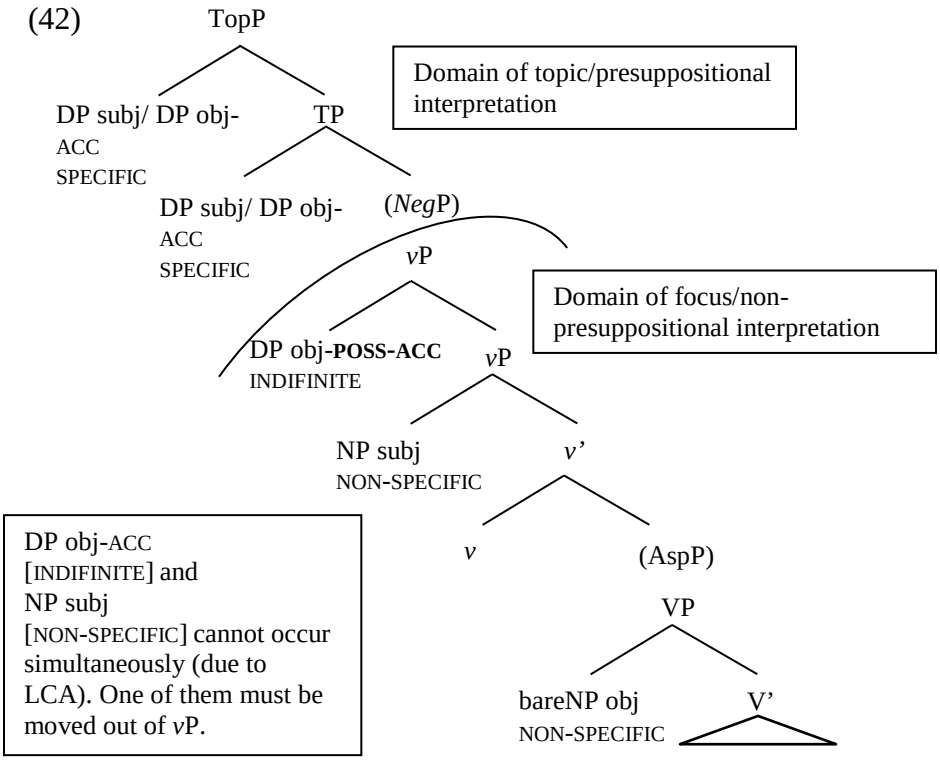
(40) [[**kitab-ı**] PPh [$_{vP}$ **kız** oku-du]PPh]I (= (39))
book-ACC girl read-PAST
'A girl read the book.' or 'The book, a girl read.'

As can be seen in (40), the prosodic phrasing for the example (39) shows that the indefinite/specific subject *kız* 'girl' is within the rightmost PPh. Notice that *kız* 'girl' occurs in Spec*v*P, not in SpecAspP. Now, if it is assumed that the prosodic boundary is (at the edge of) AspP, as shown in (41), the proposal will face a problem:

(41) …[*v*P [AspP [VP]]] (to be rejected) (=(29))
Prosodic boundary (the rightmost PPh)

We have assumed that an indefinite/non-specific subject originates in Spec*v*P and remains within *v*P. If this is the case, then, the question is why the non-specific subject *kız* 'girl' in (40) is within the rightmost PPh and gets stressed there. If the prosodic/phonological boundary is at the edge of AspP as shown in (41) (=(29)), the non-specific subject *kız* 'girl' and the verb *oku-du* 'read-PAST' in (40) should appear in two separate PPhs, and both of them should get stressed. This is because, based on (41), the subject *kız* 'girl' in Spec*v*P is outside of the rightmost PPh (a prosodic boundary) (thus, it should get stressed in its own PPh) and the verb *oku-du* 'read-PAST' should also get stressed within the rightmost PPh. However, this does not hold true as long as we observe (40); the subject *kız* 'girl' and the verb *oku-du* 'read-PAST' are within the same, single PPh. To solve this issue, we must recall the very structure we posited in Chapter 2, as repeated in (42) (which is slightly modified on the basis of the newly proposed syntactic structure from Chapter 3):

(42)



As shown in (42), (the edge of) *v*P is the boundary between the presuppositional (or topic) and the non-presuppositional (or focus) fields. This is because we have observed that an accusative-marked DP (with a possessive marker) can be non-specific and such an object is below the scope of negation. See (43) and (44):

(43) a. Mehmet bir hata-m-ı bul-du.
Mehmet one mistake-**POSS**1s-ACC find-PAST
'Mehmet found a mistake of mine.'

b. [**Mehmet**]PPh [**bir hata-m-ı** bul-du]PPh
Mehmet one mistake-**POSS**1s-ACC find-PAST
'Mehmet found a mistake of mine'

(44) a. Mehmet bir hata-yı bul-du.
Mehmet one mistake-ACC find-PAST
'Mehmet found a (particular) mistake'

b. [**Mehmet**]PPh [**bir hata-yı**]PPh [**bul-du**]PPh
Mehmet one mistake-ACC find-PAST
'Mehmet found a (particular) mistake.'

As we have discussed in Chapter 2, when the possessive morpheme appears immediately before the accusative marker, the DP can be non-specific. As shown in (43b), the non-specific reading of *bir hata-m-ı* 'a mistake of mine-ACC' does not create its own PPh, staying within the same PPh as the verb. The specific object *bir hata-yı* 'a (particular) mistake-ACC', however, creates its own PPh, being separated from the rightmost PPh, as shown in (44b). This means that the accusative-case marker is not a specificity or definiteness marker, but it is the realization of a formal case feature that needs to be checked against *v* via the movement of an accusative-marked object to Spec*v*P. As Ketrez (2005) claims, an overt accusative marker indicates that the object is shifted (or scrambled). Based on this, I posit that an accusative-marked object with a non-specific reading, as shown in (43), is shifted from VP to the edge of *v*P for formal (EPP or case) reasons though it does not create its own PPh. As shown in (45a), the low adverb *çabuk* 'quickly' cannot occur to the left of the accusative-marked object with a non-specific reading while as shown in (45b), the low adverb can occur to the left of the bare internal object:

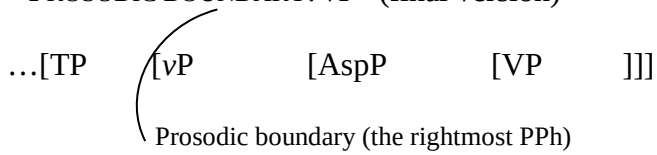
(45) a. *Mehmet [*çabuk* [$_{vP}$ bir ödev -im-i oku-du]]
Mehmet quickly one paper-**POSS**1s-ACC read-PAST
'Mehmet quickly read a paper of mine.'

b. Mehmet [$_{AspP}$ *çabuk* ödev oku-du]
Mehmet quickly paper read-PAST
'Mehmet quickly read a paper.'

I assume that the accusative-marked object with a non-specific reading in (45a) occurs in Spec*v*P and does not move further. The low adverb *çabuk* 'quickly' cannot occur in (45a) since the accusative-marked object needs to move into Spec*v*P from VP and the low adverb cannot occur above AspP. As illustrated in (42) above, we see that non-specific arguments (both accusative-marked and morphologically unmarked) must stay within the domain of the non-presuppositional ginterpretation. It is also found that such an argument does not create its own PPh. I suggest that this is because the phonological boundary is (the edge of) *v*P, not AspP.

The prosodic boundary I postulate is illustrated in (46):

(46) PROSODIC BOUNDARY: *v*P (final version)



This suggests that the syntax-prosody boundary is correlated with the semantic boundary between the presuppositional and non-presuppositional domains.[112] Having (46) in mind, let us turn back to the example (39)/(40), repeated as (47):

(47) a. [$_{TP}$ kitab-ı$_j$ [$_{T'}$ [$_{vP}$ t$_j$ [$_{vP}$ kız [$_{v'}$ [$_{VP}$ t$_j$ oku-du]]]]]]

girl book-ACC read-PAST
'A girl read the book.''

b. [[**kitab-ı**] PPh [$_{vP}$ **kız** oku-du]PPh]I
book-ACC girl read-PAST
'A girl read the book. or 'The book, a girl read.'

As can be seen in the English translation, when the accusative-marked object with a definite interpretation appears in the sentence-initial position, it is interpreted as the topic (or the given information) (Kelepir 2001). The topic phrase of a clause is specific/definite (or presuppositional). I assume that the accusative-marked object moves to SpecTP[113]. This can avoid creating symmetry at the edge of *v*P, as indicated in (47a). It also follows that the

[112] Another possibility would be to assume that a definite argument (or a topical element) always occurs in a CP-region (TopP) and a non-topical element occurs in TP (and below) (Kratzer & Selkirk 2007):

(i) [$_{TopP}$ **DP(DEF)**… [$_{TP}$ … [$_{vP}$ … [$_{VP}$ V]]]]

Kratzer & Selkirk (2007), following Jäger (2001), assumes that every clause has a syntactically represented topic (CP/TopP) immediately above TP and that any topical materials (e.g. subjects of individual predicates) must appear in that position, not within TP (their analysis also requires vacuous verb movement). If so, it can be assumed that a scrambled, accusative-marked DP (in (47)) (or a definite/specific DP) in Turkish occurs in SpecTopP, instead of SpecTP. However, I will set aside this possibility for mainly two reasons: first, it is entirely possible to suppose that definite/specific arguments reside in SpecTP (as I have suggested in Chapter 2 that definite/specific arguments do not need to be a topic) and second, since Kratzer and Selkirk (2007) do not examine sentences containing a low adverb (and how the syntactic position of a low adverb affects a prosodic spellout domain), there is still some space for reconsidering/re-examining their proposal.

[113] The scrambled object in (47) could move into SpecTopP (from SpecTP) though the prosodic structure (47b) does not change, irrespective of whether the scrambled object is in TP or TopP; that is, the number of PPhs will be the same. What (47) actually shows is that the scrambled object is *outside of v*P.

definite/specific (presuppositional) object needs to escape from a non-presuppositional domain to maintain its presuppositional interpretation (Kelepir 2001; Ketrez 2005).

When the subject and the object are both interpreted as definite/specific, it means that both of them are outside of the non-presuppositional domain (i.e. *v*P); this can be illustrated as (48):

(48) a. [$_{TopP}$ kız$_i$ [$_{Top'}$ [$_{TP}$ kitab-ı$_j$ $_{(NegP)}$[$_{vP}$ t$_j$ [$_{vP}$ t$_i$ [$_{v'}$ [$_{AspP}$ [$_{VP}$ t$_j$ oku-du]]]]]]]

girl book-ACC read-PAST

'The girl read the book.'

b. [[**kız**]PPh [**kitab-ı**]PPh [**oku-du**]PPh]I
girl book-ACC read-PAST
'The girl read the book.'

In (48b), only the verb *oku-* 'read' is within the rightmost PPh since the subject and the object are both outside of *v*P. Once DP moves out of *v*P, it creates its own PPh and receives PPh-level stress.[114] Here, I assume that the subject *kız* 'girl' is outside of TP, and appears in SpecTopP (a position higher than TP). Now, it has been claimed that vacuous topicalization of subjects is not allowed (cf. Lasnik & Saito 1992). However, at least, in a case where something else (or another specific DP) already occupies SpecTP such as (48), I assume that SpecTopP is available for a topicalized subject. Therefore, topicalization of the subject in (48) is not a case of vacuous movement: it crosses the scrambled object in SpecTP. The structure (48) also shows that (*i*) phrase structure must obey Antisymmetry (thus, the subject should not occur in multiple specifiers of TP, as the object already occupies SpecTP) and (*ii*) the subject *kız* 'girl' in (48) creates its own PPh (thus, it is not within the same projection as the accusative-marked object).

[114] This is somewhat along the lines of the idea that an externally merged/introduced material to the specifier position (of certain functional projections) is expected to exhibit prosodic effects (e.g. Kratzer & Selkirk 2007).

As has been discussed in Chapter 2, when there are two specific DPs (or when something else already occupies SpecTP), the leftmost one is a topic[115] (whether a subject or an object) since it is more discourse-salient (and more definite/specific) than the other (or the rest of the clause) under the topic-comment structure. Let us review the prosodic structure of the sentences with QPs discussed in Chapter 2:

(49) a. [$_{TopP}$ Üç kişi [$_{TP}$ herkes-i [$_{VP}$ suçla-dı.]]]
three people.NOM everyone-ACC accuse-PAST.3SG
'Three people accused everyone.'
3>every; *every> 3

b. [$_{TP}$ Herkes-i [$_{vP}$ üç kişi [$_{VP}$ suçla-dı.]]]]
everyone-ACC three people. NOM accuse-PAST.3SG
'Three people accused everyone.'
every > 3; 3 > every

(50) a. ?[$_{TP}$ Herkes$_i$ [$_{vP}$ üç kişi-yi [t_i [$_{VP}$ suçla-dı]]]
everyone three people-ACC accuse-PAST.3SG
'Everyone accused three people.'
every>3; 3>every

b. [$_{TopP}$ Üç kişi-yi [$_{TP}$ [$_{vP}$ herkes suçla-dı.]]]
three people-ACC everyone.NOM accuse-PAST.3SG
'Everyone accused three people.'
3> every; *every>3

I have postulated that the availability of overt movement of QP to SpecTopP restricts covert movement of QP (cf. Ionin 2002). Therefore, whenever SpecTopP is overtly filled, QR should be restricted. As shown in (49a) and (50b), these sentences allow only the surface scope reading. Thus, I postulate that the leftmost DPs in (49a) and (50b) (i.e. the clause-initial subject *üç kişi* 'three people' in (49a) and the scrambled object *üç kişi-yi* 'three people-ACC', respectively) reside in SpecTopP.[116] In contrast, the examples (49b) and (50a) show scopal ambiguity, which

[115] There is a longer pause between a topic DP in SpecTopP and DP in SpecTP.
[116] Notice here that the group denoting phrase (GDP) *three people* takes wide scope over the distributive phrase *every*, which is in line with the QP hierarchy proposed by Beghelli & Stowell (1997). The following is the brief summary of the QP hierarchy (see also Chapter 2):
(i) GDP>Wh-item>NumQP>Distributive(every)>GDP>(Neg)>NumQP
(modified from Beghelli & Stowell (1997)

suggests that QR (or reconstruction) can apply. I assume that this is because the scrambled object QP *herkes-i* 'everyone-ACC' in (49b) and the subject QP *herkes* 'everyone' appear in SpecTP, not in SpecTopP (probably due to some particular property of the quantifier *her(kes)* 'every(one)'). Now, let us take a look at the prosodic structures of (49) and (50):

(51) a. [**Üç kişi**]PPh [**herkes-i**]PPh [**suçla-dı**]PPh (=(49))
three people.NOM everyone-ACC accuse-PAST.3SG
'Three people accused everyone.'
3>every; *every> 3

b. [**Herkes-i**]PPh [**üç kişi** suçla-dı]]PPh
everyone-ACC three people. NOM accuse-PAST.3SG
'Three people accused everyone.'
every > 3; 3 > every

(52) a. ?[**Herkes**]PPh [**üç kişi-yi** suçla-dı]]PPh (=(50))
everyone three people-ACC accuse-PAST.3SG
'Everyone accused three people.'
every>3; 3>every

b. [**Üç kişi-yi**]PPh [**herkes** suçla-dı]]PPh
three people-ACC everyone.NOM accuse-PAST.3SG
'Everyone accused three people.'
3> every; *every>3

In (51a), there are three PPhs. The accusative-marked object *herkes-i* 'everyone-ACC' in (51a) creates its own PPh. This means that the object *herkes-i* 'everyone-ACC' is *outside* of the (lowest or rightmost) prosodic boundary (i.e. the edge of *v*P); therefore, I assume that *herkes-i* 'everyone-ACC' in (51a) occurs in SpecTP. As can be seen, the clause-initial subject *üç kişi* 'three people' also creates its own PPh, which supports the claim that this subject as a topic is *outside* of TP (and appears in SpecTopP). In (51b), the scrambled object *herkes-i* 'everyone-ACC' creates its own PPh. However, the subject *üç kişi* 'three people' interpreted as non-specific does not create its own PPh, and it appears within the same PPh as the verb *suçla-* 'accuse.' Thus, I assume that the scrambled *herkes-i* 'everyone-ACC' is in SpecTP and the subject *üç kişi* 'three

Note that Aygen (1999) points out that the order 'Distributive Phrase>GDP' is not rigid in the case of Turkish.

people' is in Spec*v*P. Let us move onto (52). In (52a), I postulate that the clause-initial subject *herkes* 'everyone' occurs in SpecTP and the object *üç kişi-yi* 'three people-ACC' occurs in Spec*v*P; thus, there are two PPhs. It should be reminded that (52) does not seem to sound perfect to native speakers. Native speakers of Turkish prefer a sentence like (52b) over (52a). One reason would be because of the syntactic position of the object *üç kişi-yi* 'three people-ACC' in (52a). As has been discussed, the accusative-marked object (without a possessive marker) is normally interpreted as definite/specific, which is supposed to occur above the domain of the non-presuppositional interpretation (i.e. above *v*P). However, as shown in (52a), the prosodic structure of (52a) indicates that *üç kişi-yi* 'three people-ACC' appears in Spec*v*P. If the object *üç kişi-yi* 'three people-ACC' occurs in Spec*v*P, the non-specific interpretation would be imposed, which might cause the low acceptability of (52a). This in fact indicates that in addition to an accusative-marked object with a possessive marker, a (certain type of) quantified noun phrase with an accusative marker can remain in Spec*v*P while a non-quantified noun phrase is unambiguously definite/specific (creating its own prosodic domain) and occurs in SpecTP.[117]

[117] It is true that a (universally) quantified noun phrase *is required* to stay within *v*P under certain circumstances. For instance, when there is NegP in a structure, scope-sensitive materials (including certain adverbs and quantifiers). See (i):

(i) a. Everyone didn't come. (English) every>not; not>every
b. Herkes gel-me-di. (Turkish) *every>not; not>every
everyone arrive-NEG-PAST
'Everyone did not come.'

While the English example (ib) is scopally ambiguous, the Turkish example (ib) is unambiguous. Here, (and throughout this dissertation) I assume that in Turkish NegP appears above *v*P, following e.g. Ketrez 2005; İşşever 2008. As shown in (ib), negation must take wide scope over the universal quantifier *herkes* 'everyone' in Turkish (see also the example (53)). Further, when an NPI appears in a sentence, it seems that the NPI should occur above a quantified noun phrase:

(ii) a. Kimse herkes-i suçla-me-dı.
any(nobody) everyone-ACC accuse-NEG-PAST
'No one accused everyone.'
b. *Herkes kimse-yi suçla-me-dı.
everyone any (nobody)-ACC accuse-NEG-PAST
'Everyone accused no one.'
c. [$_{TP}$ (NPI) …[$_{NegP}$ NPI …[$_{vP}$ QP …]]]

If the NPI *kimse* 'nobody (any)'appears either in SpecNegP or SpecTP in (ii), it turns out that the accusative-marked quantifier *herkes* 'everyone-ACC' in (iia) in fact appears in Spec*v*P (under the scope of negation). The example (iia)

Lastly, in (52b), there are two PPhs. I assume that the scrambled object *üç kişi-yi* 'three people-ACC' occurs in SpecTopP since the only surface reading is possible for this sentence (thus, overt movement restricts QR). The subject *herkes* 'everyone' receives stress within the rightmost PPh; thus, it occurs in Spec*v*P. The position of the subject *herkes* 'everyone' in (52b) here can be supported by a structure with negation. Consider (53) (cf. Chapter 2, Footnote 14):

(53) a. [$_{TopP/TP}$ O soru-yu [$_{NegP}$ [$_{vP}$ herkes (çabuk) yanıtla-ma-dı.]
that question-ACC everyone.NOM (quickly) answer-NEG-PAST
'That question, all didn't answer quickly.' (not>every; *every>not)
(İşsever 2008:6)

b. [**O soru-yu**]PPh [**herkes** (çabuk) yanıtla-ma-dı]PPh
that question-ACC everyone.NOM (quickly) answer-NEG-PAST
'That question, all didn't answer quickly.' (not>every; *every>not)

As shown in (53), the subject *herkes* 'everyone' is under the scope of negation, and only the partial-negation reading is possible due to a property of the (universal) quantifier in Turkish.[118] The prosodic structure (53b) also shows that *herkes* 'everyone' is within the rightmost PPh, which means that the subject *herkes* 'everyone' occurs in *v*P. Now, the scrambled object *o soru-yu* 'that question-ACC' is interpreted as a topic (as indicated in the English translation). Given that in (52b) the scrambled object is posited to be a topic in SpecTopP (restricting covert QR), it is possible to postulate that the scrambled object *o soru-yu* 'that question-ACC' in (53) appears in SpecTopP. More research is needed though, in order to give a definitive answer to this question.

In sum, the observations based on the syntactic and prosodic structures in this section have shown that syntax, prosody and information structure interplay. A definite/specific DP must be outside of *v*P. Prosodic phrasing has shown that when there are two DPs, the leftmost DP is

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is simply not possible since in a sentence with negation the universal quantifier cannot occur above NegP (thus, not above the NPI, either) (see (iic)). Though I do not have an answer for the question of why Neg and certain quantifiers behave as shown in (ii) (and (52) and (53)), I conclude here that under certain circumstances (e.g. a sentence with negation or with quantification) an (a scope-bearing) accusative-marked object can occur in Spec*v*P. For a detailed discussion of scope and negation in Turkish (with regard to Immediate Scope Constraint (Linebarger 1980) and choice functions), see Kelepir (2001).

[118] Thus, the total-negation interpretation is not available in (53). See also fn. 116.

more discourse-prominent and thus it is the topic of a sentence (under the topic-comment/topic-focus structure). A DP appearing within *v*P must be non-topical (thus, it follows that non-specific or non-presuppostional (or focus) elements occur here), for the information structure (the topic-focus or the topic-comment structure) interacts with word order and prosody.[119]

4.4 Adverbs revisited: Syntactic positions of high adverbs

Thus far, the syntax-prosody interface account has correctly predicted structures with nominal arguments and low adverbs which correspond to their syntactic structures. Let us summarize facts about a low adverb we have discussed. See accomplishments first:

(54) a. ?[**$_{VP}$** çabuk [$_{V'}$ hastalık yayıl-dı]] (Unaccusative accomplishment)
quickly disease spread-PAST
'A disease quickly spread.'

b. [[**$_{AspP}$ çabuk** hastalık yayıl-dı]PPh]I
quickly disease spread-PAST
'A disease quickly spread.'

[119] Some questions might be raised with regard to bare nouns in specific syntactic contexts. Some of the questions would be how pair-list answers such as "*Who bought what?*" work in Turkish and how they are answered. It might be hypothesized that both noun phrases (*who* and *what*) are definite and specific, but that neither noun phrase is a topic, which would seem to make it difficult to answer the question. Consider (i):

(i) a. Q: Kim ne al-di?
who what buy-PAST
'Who bought what?'
b. A: Mehmet kitap al-di (Ali suşi al-di, Ayşe elma al-di…)
Mehmet book buy-PAST (Ali sushi buy-PAST, Ayşe apple buy-PAST…)
'Mehmet bought a book (Ali bought sushi, Ayşe bought an apple…)

As can be seen in (ib) (the answer to the pair-list question (ia)), the subject *Mehmet* is definite/specific while the object *kitap* 'book' is indefinite/non-specific. According to Kiss (1993), the initial *wh*-phrase (in a sentence like *Ki mit vett*? (Hungarian) 'Who bought what?') is always interpreted as a topic (i.e. specific) whereas the second *wh*-phrase is interpreted as a focus (i.e. non-specific) (Kiss 1993). Thus, the answers to the pair-list questions must parallel the questions in Hungarian. This holds true for Turkish, too. Given the result in (i) (the pari-list reading), the Turkish example (i) also shows that the initial *wh* (*kim* 'who') in (ia) serves as a topic-like universal quantifier wheares the second *wh* (*ne* 'what') serves as the focus (cf Kiss 1993), which patterns with Hungarian in this respect. See the next example (ii):

(ii) a. Ne-yi kim al-di?
what-ACC who buy-PAST
'Who bought what?'
b. *Ne kim al-di?
what who buy-past
'Who bought what?'

As shown in (iia), the initial *wh* (*ne* 'what') *must be* accusative-case-marked; hence, it *must be* specific. As expected, (iib) is ungrammatical. Following Kiss (1993), I assume that the initial *wh* should be definite/specific and in the topic position (SpecTP) while the second *wh* should be indefinite/non-specific and in the focus position (Spec*v*P/VP).

(55) a. [**TP** Mehmet [$_{vP/AspP}$ çabuk [**VP** kitap oku-du]]] (Transitive accomplishment)
Mehmet quickly book read-PAST
'Mehmet quickly read a book.'

b. [[**Mehmet**]PPh [$_{vP/AspP}$ **çabuk** kitap oku-du]PPh]I
Mehmet quickly book read-PAST
'Mehmet quickly read a book.'

In (54) and (55), a low adverb receives stress within the rightmost PPh since there is a position (i.e. SpecAspP) available for the low adverb *çabuk* 'quickly' to occupy. In contrast, a low adverb cannot receive stress in an achievement with an indefinite/non-specific object, as shown in (56) and (57):

(56) a. *[$_{VP}$ adam [$_{VP}$ çabuk [$_{V'}$ gel-di]]] (Unaccusative achievement)
man quickly arrive-PAST
'Intended: A man quickly arrived.'

b. *[[**adam** çabuk gel-di]PPh]I
man quickly arrive-PAST
'Intended: A man quickly arrived.'

(57) a. *[$_{TP}$ Mehmet [$_{vP}$ …[$_{VP}$ çabuk [$_{VP}$ para [$_{V'}$bul-du]]]]] (Transitive achievement)
Mehmet quickly money find-PAST
'Intended: Mehmet quickly found a coin.'

b. *[[**Mehmet**]PPh [**çabuk** para bul-du]PPh]I
Mehmet quickly money find-PAST
'Intended: Mehmet quickly found a coin.'

We have concluded that this is due to a violation of LCA. Since an achievement does not have AspP in its structure, the low adverb *çabuk* 'quickly' and the bare object *para* 'money' occur in the multiple specifiers of VP. This is precisely why (56) and (57) are ungrammatical. Therefore, once the object moves out of SpecVP to a higher position, the sentence becomes grammatical. The prosodic phrasing also reflects its corresponding syntactic structure, as shown in (58) and (59):

(58) a. [$_{TP}$ adam [$_{VP}$ çabuk [$_{V'}$ gel-di]]] (Unaccusative achievement)
man quickly arrive-PAST
'The man quickly arrived.'

b. [[**adam**]PPh [**$_{VP}$ çabuk** gel-di]PPh]I
man quickly arrive-PAST
'The man quickly arrived.'

(59) a. [$_{TP}$ Mehmet [$_{vP}$ para-yı [$_{v'}$[$_{VP}$ çabuk [$_{V'}$ bul-du]]]]] (Transitive achievement)
Mehmet money-ACC quickly discover-PAST
'Mehmet quickly discovered the coin.'

b. [[**Mehmet**]PPh [**para-yı**]PPh [**$_{VP}$ çabuk** bul-du]PPh]I
Mehmet money-ACC quickly discover-PAST
'Mehmet quickly discovered the coin.'

Now, consider the examples (60) and (61), repeated from (3) and (4), where a high adverb appears. I have pointed out earlier in 4.1.1 that the syntactic positions of high adverbs and low adverbs are different.

(60) a. Mehmet *muhtemelen* ödev bitir-di (Achievement)
Mehmet probably paper finish-PAST
'Mehmet probably finished a paper.'

b. Mehmet *muhtemelen* ödev-i bitir-di
Mehmet probably paper-ACC finish-PAST
'Mehmet probably finished a paper.'

(61) a. Mehmet *muhtemelen* kitap oku-du (Accomplishment)
Mehmet probably book read-PAST
'Mehmet probably read a book.'

b. Mehmet *muhtemelen* kitab-ı oku-du
Mehmet probably book-ACC read-PAST
'Mehmet probably read the book.'

As shown in (60b) and (61b), the adverb *muhtemelen* 'probably' occurs to the left of the accusative-marked object. Thus, the assumption here is that the adverb *muhtemelen* 'probably', in fact, occurs externally to AspP/VP (even though the data (60a) and (61a) are in principle compatible with placement of the adverb within AspP/VP). This is exactly the reason why no symmetry is created at the edge of VP in an achievement with a bare object like (60a); therefore, the example (60) is grammatical. We can see this from prosodic phrasing corresponding to syntactic structures:

(62) a. Mehmet *muhtemelen* ödev bitir-di. (*bare Obj*) (Achievement)
Mehmet probably paper finish-PAST
'Mehmet probably finished a paper.'

b. [[**Mehmet**]PPh [***muhtemelen***]PPh [**ödev** bitir-di]PPh]I
Mehmet probably paper finish-PAST
'Mehmet probably finished a paper.'

(63) a. Mehmet *muhtemelen* ödev-i bitir-di. (*Acc-marked Obj*)
Mehmet probably paper-ACC finish-PAST
'Mehmet probably finished a paper.'

b. [[**Mehmet**]PPh [***muhtemelen***]PPh [**ödev-i**]PPh [**bitir-di**]PPh]I
Mehmet probably paper-ACC finish-PAST
'Mehmet probably finished a paper.'

(64) a. Mehmet *muhtemelen* kitap oku-du. (*bare Obj*)
(Accomplishment)
Mehmet probably book read-PAST
'Mehmet probably read a book.'

b. [[**Mehmet**]PPh [***muhtemelen***]PPh [**kitap** oku-du]PPh]I
Mehmet probably book read-PAST
'Mehmet probably read a book.'

(65) a. Mehmet *muhtemelen* kitab-ı oku-du. (*Acc-marked Obj*)
Mehmet probably book-ACC read-PAST
'Mehmet probably read the book.'

b. [[**Mehmet**]PPh [***muhtemelen***]PPh [**kitab-ı**]PPh [**oku-du**]PPh]I
Mehmet probably book-ACC read-PAST
'Mehmet probably read the book.'

As can be seen, a high adverb must create its own PPh.[120] This clearly shows that what we have postulated earlier is borne out; that is, a high adverb must appear in a high range (i.e. a position external to AspP/VP). Since a high adverb appears AspP/VP-externally, the prosodic phrasing shown in (66a, b) is naturally ruled out:

(66) a. *[[**Mehmet**]PPh [***muhtemelen*** ödev bitir-di]PPh]I
Mehmet probably paper finish-PAST
'Mehmet probably finished a paper.'

b. *[[**Mehmet**]PPh [***muhtemelen*** kitap oku-du]PPh]I
Mehmet probably book read-PAST
'Mehmet probably read a book.'

[120] A similar idea is suggested in Kratzer & Selkirk (2007).

It should be reminded that a low adverb cannot create its own PPh, which again ensures that it cannot attach to *v*P (or above *v*P), but it must stay in a position lower than *v*P. The following prosodic structures (67) and (68) are all ill-formed, as contrasted with the examples (62) – (65):

(67) a. *[$_{TP}$ Mehmet [*çabuk* [$_{vP}$ para-yı [$_{v'}$ [$_{AspP/VP}$ [$_{V'}$ bul-du]]]]]
Mehmet quickly money-ACC discover-PAST
'Mehmet quickly discovered the coin.'

b. *[[**Mehmet**]PPh [***çabuk***]PPh [**para-yı**]PPh [**bul-du**]PPh]I
Mehmet quickly money-ACC discover-PAST
'Mehmet quickly discovered the coin.'

c. *[[**Mehmet**]PPh [***çabuk***]PPh [**para** bul-du]PPh]I
Mehmet quickly mondy discover-PAST
'Mehmet quickly discovered a coin.'

(68) a. *[$_{TP}$ Mehmet [*çabuk* [$_{vP}$ kitab-ı [$_{v'}$ [$_{AspP}$ [$_{VP}$ [$_{V'}$ oku-du]]]]]]]
Mehmet quickly book-ACC read-PAST
'Mehmet quickly read the book.'

b. *[[**Mehmet**]PPh [***çabuk***]PPh [**kitab-ı**]PPh [**oku-du**]PPh]I
Mehmet quickly book-ACC read-PAST
'Mehmet quickly read the book.'

c. *[[**Mehmet**]PPh [***çabuk***]PPh [**kitap** oku-du]PPh]I
Mehmet quickly book read-PAST
'Mehmet quickly read a book.'

All things considered, the high adverb *muhtemelen* 'probably' *cannot* occur in a low range, On the basis of the prosodic boundary postulated in 4.3.2, I assume that a high adverb occurs outside of *v*P/AspP (i.e. TP and above).

4.5 Temporal modifiers and beyond

I have shown that the proposed syntactic structures are supported by prosodic facts under the syntax-prosody interface account. In addition to low and high adverbs, we have also seen other aspectual/time-frame adverbials such as *x boyunca* 'for *x* time' and *x-te* 'in *x* time.' In this section, I will talk about the (relative) syntactic positions for those time-frame adverbials. We saw the contrast between low adverbs and high adverbs though certain adverbials seem more

flexible. For example, *dün* 'yesterday' seems to occur flexibly, in terms of its syntactic position. See the unaccusative (69):

(69) a. [[**Dün**]PPh [**adam**]PPh [**gel-di**]PPh]I
[$_{FP}$ **Dün** [$_{TP}$ **adam** [$_{VP}$ **gel-di**]]]
yesterday man arrive-PAST
'Yesterday, the man arrived.'

b. [[**Dün**]PPh [**adam** gel-di]PPh]I
[$_{TP}$ **Dün** [$_{VP}$ **adam** gel-di]]
yesterday man arrive-PAST
'Yesterday, a man arrived.'

c. [[**Adam**]PPh [**dün** gel-di]PPh]I
[$_{TP}$ **Adam** [$_{VP}$ **dün** gel-di]]
man yesterday arrive- PAST
'Yesterday, the man/*a man arrived.'

d. *[[**Dün** adam gel-di]PPh]I
[$_{VP}$ **Dün** adam gel-di]]
yesterday man arrive-PAST
'Intended: Yesterday, a man arrived.' (Özçelik & Nagai 2011)

As can be seen in (69), *dün* 'yesterday' can occur relatively freely in a sentence as long as phrase structure follows Antisymmetry. As shown in (69d), the sentence is ungrammatical since *dün* 'yesterday' and the indefinite noun *adam* 'man' are in the specifier positions of VP, creating symmetry. The example (69d) is ungrammatical due to the violation of the LCA.

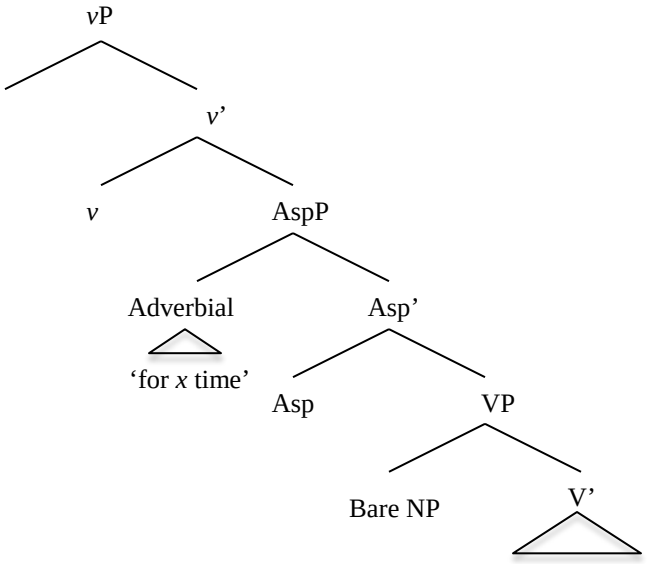
Let us turn to temporal adverbials: *x boyunca* 'for *x* time' and *x-te* 'in *x* time.' See a sentence with the durational modifier *x boyunca* 'for *x* time' in (70):

(70) Murat bir saat boyunca kitap oku-du.
Murat one hour for book read-PAST
'Murat read books/a book for an hour.

The durational modifier *x boyunca* 'for *x* time' occurs in a sentence if the sentence is an accomplishment or activity. As for an accomplishment construction, *x boyunca* 'for *x* time' can occur only when the internal argument of an accomplishment is a bare noun. In such a case, SpecAspP is available for the durational modifier to occupy. Thus, the structure can be illustrated,

as in (71):

(71)



Now, the next question to be raised is whether *x boyunca* 'for *x* time' can occur in SpecAspP when NumP appears in a sentence. I have claimed in Chapter 3 that in accomplishments and activities, a NumP that modifies a bare internal object appears in SpecAspP. Under the current proposal, since phrase structure needs to obey Antisymmetry, the durational modifier *x boyunca* 'for *x* time' and NumP should not be able to appear at the same time. This is indeed the case. When the internal argument of an activity is modified by number/quantity expressions, the sentence is not acceptable. See the activity sentences (72a) and (73a):

(72) a. Mehmet bir saat-te/*bir saat boyunca bir/ *üç* /birçok araba it-ti.
Mehmet one hour-in /one hour for one /three/several cart push-PAST
'Mehmet push a cart/ three carts/many carts *for an hour.'

b. Mehmet araba-yı *bir saat-te/ bir saat boyunca it-ti.
Mehmet cart-ACC one hour-in/ one hour for push-PAST
'Mehmet push the cart *in an hour/ for an hour.'

(73) a. Mehmet bir saat-te/*bir saat boyunca bir/ *üç* /birçok program seyret-ti.
Mehmet one hour-in /one hour for one /three/several program watch-PAST
'Mehmet watched a (TV) program/three programs/several programs in an hour/ *for an hour.'

b. Mehmet program-ı *bir saat-te/bir saat boyunca seyret-ti.
Mehmet program-ACC one hour-in /one hour for watch-PAST
'Mehmet watched a particular (TV) program *in an hour/ for an hour.'

I assume that the durational modifier *x boyunca* 'for *x* time' cannot occur in a sentence like (72a) and (73a) precisely because of a violation of the LCA, as schematized in (74):

(74) …[$_{AspP}$ 'for *x* time' [$_{AspP}$ NumP [$_{Asp'}$ Asp [$_{VP}$ …]]]] (= (72a), (73a))

Violation of LCA

Notice that (72b) and (73b) are compatible with the durational modifier *x boyunca* 'for *x* time'. In (72b) and (73b), the internal argument of an activity is accusative-marked, and the non-delimited interpretation obtains. Even though (72a) and (73a) seem to pattern with an accomplishment containing a non-case-marked object modified by a Number/Quantity expression in that such a sentence is telic, (72b) and (73b) are still different from accomplishments. Therefore, I maintain that activities can be separated from accomplishments. An accomplishment with an accusative-marked object always shows the delimited (or telic) interpretation (see (72)), which does not pattern with activities like (72b) and (73b). Compare (75) with (72b) and (73b):

(75) Murat kitab-ı bir saat-te/ *bir saat boyunca oku-du.
Murat book-ACC one hour-in/ one hour for read-PAST
'Murat read the book in an hour/ *for an hour.

The postulated syntactic structures for (72b), (73b) and (75) are schematized in (76):

(76) a. …[$_{vP}$ DP-ACC$_i$ …[$_{AspP}$ 'for *x* time' [$_{Asp'}$ Asp [$_{VP}$ t$_i$ …]]]] (= (72b), (73b))

b. …[$_{YP/TP}$ DP-ACC$_i$ …[$_{XP/vP}$ 'in *x* time' …[$_{AspP}$ [$_{Asp'}$ Asp [$_{VP}$ …]]]] (=(75))

No violation of LCA

I conclude that the durational adverbial *x boyunca* 'for *x* time' attaches to AspP. Placed in SpecAspP, *x boyunca* 'for *x* time' would not be able to occur if some other PF-visible element occurs in SpecAspP.

Let us move to the time-frame adverbial *x-te* 'in *x* time'. We have seen that the distribution of *x boyunca* 'for *x* time' is restricted; that is, the potential site for the durational modifier is SpecAspP. I argue that the distribution of the time-frame adverbial *x-te* 'in *x* time' is more flexible than *x boyunca* 'for *x* time'. Basically, *x-te* 'in *x* time' can occur in any telic predicates. The adverbial *x-te* 'in *x* time' can occur in structures with and without AspP. Consider (77) and (78). It should be noticed that achievements (see (77)) do not have AspP, whereas accomplishments have AspP (see (78)):

(77) a. Mehmet bir saat-te ödev bitir-di
Mehmet one hour-in paper finish-PAST
'Mehmet finished a paper in an hour.'

b. Mehmet ödev-i bir saat-te bitir-di
Mehmet paper-ACC one hour-in finish-PAST
'Mehmet finished the paper in an hour.'

c. Mehmet bir saat-te ödev-i bitir-di
Mehmet one hour-in paper-ACC finish-PAST
'Mehmet finished the paper in an hour.'

(78) a. Mehmet bir saat-te kitab-ı oku-du
Mehmet one hour-in book read-PAST
'Mehmet read the book in an hour.' (Ketrez 2005)

b. Mehmet kitab-ı bir saat-te oku-du
Mehmet paper-ACC one hour-in read-PAST
'Mehmet read the book in an hour.'

As shown in (77) and (78), the time-frame adverbial *x-te* 'in *x* time' can occur relatively freely. The fact that *x-te* 'in *x* time' appears to the left of an accusative-marked object in (77c) and (78a) indicates that *x-te* 'in *x* time' can occur even higher than *v*P.

Furthermore, the VP-ellipsis constructions in the accomplishment sentences (79) and (80) below show a clear contrast between 'for *x* time' and 'in *x* time,' which has never been discussed for Turkish in previous studies. The examples (79) and (80) are given as original data:

(79) a. Murat bir saat-te bir elma ye-di; Ali-de iki saat-te ~~<bir elma ye-di>~~.
Murat one hour-in one apple eat-PAST; Ali-TOP two hour-in
'Murat ate an apple in an hour; Ali (did) in two hours.

b. ??/*Murat bir saat boyunca elma ye-di; Ali -de iki saat boyunca ~~<elma ye-di>~~.
Murat one hour for apple eat-PAST; Ali -TOP two hour for
'Murat ate an apple/apples for an hour; Ali (did) for two hours.'

(80) a. Murat bir saat-te bir kitap oku-du; Ali-de iki saat-te ~~<bir kitap oku-du>~~.
Murat one hour-in one book read-PAST; Ali-TOP two hour-in
'Murat read a book in an hour; Ali (did) in two hours.'

b. ??/*Murat bir saat boyunca kitap oku-du; Ali -de iki saat boyunca ~~<kitap oku-du>~~.
Murat one hour for book read-PAST; Ali -TOP two hour for
'Murat read a book/books for an hour; Ali (did) for two hours.'

As can be seen in (79a) and (80a), in a second sentence/statement, it is possible to elide only the VP and leave the time-frame adverbial *iki saat-te* 'in two hours' stranded. This indicates that 'in *x* time' here can be *outside* of AspP/VP. In contrast, as in (79b) and (80b), under the VP-ellipsis, the durational adverbial *x boyunca* 'for *x* time' cannot be stranded, which shows that AspP/VP must contain 'for *x* time.' In achievements, too, the time-frame adverbial 'in *x* time' can be stranded, as shown in (81):

(81) Murat bir gün-de iş bul-du; Ali -de on gün-de ~~<iş bul-du>~~.
Murat one day-in job find-PAST; Ali -TOP ten day-in
'Murat found a job in a day; Ali (did) in ten days.

Now, in achievements, 'in *x* time' is *not* specifying the duration of the change of state; rather, it shows that the event happened at the end of the time period specified or states how long it took *before* the event took place (cf. see Chapter 3, the section 3.1.1). In the case of accomplishments, 'in *x* time' indicates that the event took place *during* the time specified, and the completion of the event might take shorter than the amount of time expressed. Therefore, it can be assumed that the

adverbial 'in *x* time' in Turkish behaves as a temporal modifier and can appear in a syntactically higher position. On the other hand, the durational adverbial 'for x time' specifies definite amount of time. This suggests that 'for *x* time' is involved in the event composition by appearing *within* the event-internal (i.e. the Aktionsart layer of the structure) position. Based on this, I assume that the syntactic distribution of *x-te* 'in *x* time' is different from the durational adverbial *x boyunca* 'for *x* time'.

A similar conclusion on different grounds is reported in Peck (2011). Peck (2011) observes that in Old/Middle/Modern Chinese, a durational adverbial appears in post-verbal position (and it sometimes behaves just like an internal argument), as in (82a), while a time-frame adverbial occurs in pre-verbal position, as in (82b):

(82) *Chinese*
a. [$_{VP}$ V (Obj) 'for *x* time']
b. [$_{XP}$ 'in *x* time' [$_{VP}$ V (Obj)]] (Peck 2011)

Peck points out that the positions for adverbials indicated in (82) are fixed; put another way, the 'for *x* time' adverbial cannot appear in pre-verbal position, and the 'in *x* time' adverbial cannot appear in post-verbal position in Chinese. Adopting de Swart's (1998) insights about aspectual shift, Peck explores the difference between 'for *x* time' and 'in *x* time.' Let us take a brief look at de Swart's proposal for durative and time-frame adverbials. The 'for *x* time' adverbial is restricted to homogeneous eventualities (i.e. activities and states), and the 'in *x* time' adverbial to accomplishments (and achievements).[121] See (83) and (84):

(83) a. Andrew swam *for three hours*.
b. *Eve drew a circle *for three hours*. (de Swart 1998: 356)

(84) a. *Andrew swam *in three hours*.
b. Eve drew a circle *in ten minutes*. (de Swart 1998: 356)

[121] Achievements can also be added here though de Swart (1998) does not talk about achievements.

de Swart (1998), following e.g. Vet (1980), Moens (1987), Naumann (1995) and others, argues that the durational 'for *x* time' provides a *boundedness* notion. Now see (85):

(85) a. Andrew was swimming. → Andrew swam.
b. Andrew was swimming for three hours. ↛ Andrew swam for three hours.
c. Eve was drawing a circle. ↛ Eve drew a circle. (de Swart 1998: 356 (15))

As shown in (85a), States or Processes in the progressive are normally inferred in the simple past. However, as shown in (85b), when a durational adverbial occurs, the same inference from the progressive to the simple past does not obtain. In this respect, (85b) patterns with (85c). Based on the observations (83) – (85), de Swart (1998) claims that once 'for *x* time' is combined with a State or Process (or activity) it makes the given event quantized (i.e. accomplishments/achievements):[122]

(86) *for*-adverbials
FOR *x* time: State ∪ Process (homogeneous eventualities) → quantized events[123]
(modified from de Swart 1998)

On the other hand, the 'in *x* time' adverbial maps a set of quantized events onto another set of quantized events:

(87) *in*-adverbials
IN *x* time: quantized events → quantized events (modified from de Swart 1998)

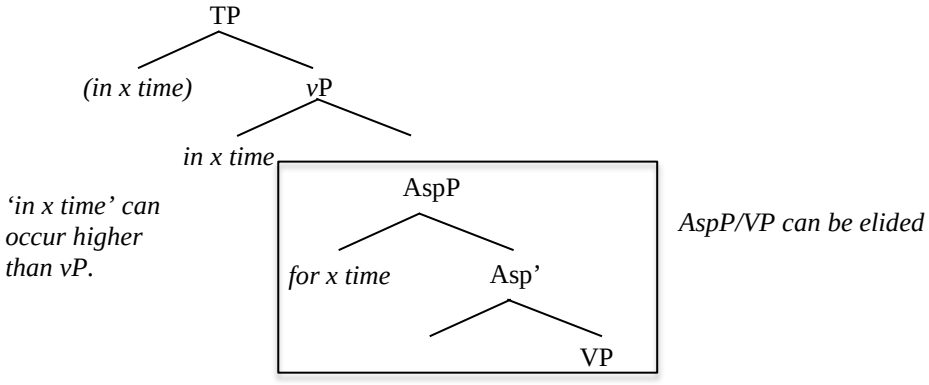
As shown in (87), the time-frame adverbial does not influence the eventuality of the modified predicate. Adopting de Swart's (1998) proposal indicated in (86) and (87), Peck concludes that 'in *x* time' does not participate in event composition while 'for *x* time' does. That is, in Chinese, 'for *x* time' located post-verbally gives an event a specific period of time whereas 'in *x* time' located pre-verbally does not impose such a requirement – the completion of the event might

[122] de Swart's (1998) classification of eventualities is as follows: *Homogeneous* (State (Stative) and Process (dynamic)) vs. *Quantized* (event (dynamic)). Notice that in this categorization both accomplishments and achievements are in the category of "Event" (de Swart's sense) or "Transition" (in Pustejovsky's (1991) sense).
[123] Quantized events in de Swart (1998) possibly correspond to accomplishments (and achievements).

take shorter than the amount of time expressed, as mentioned above. As a result, 'in *x* time' is outside of VP (or pre-verbal) in Chinese. Therefore, I assume that this applies to Turkish (and is possibly a universal).

The structure (88) illustrates the relative positions of 'for *x* time' and 'in *x* time' in Turkish:

(88) (Relative) positions of 'for *x* time' and 'in *x* time' in Turkish



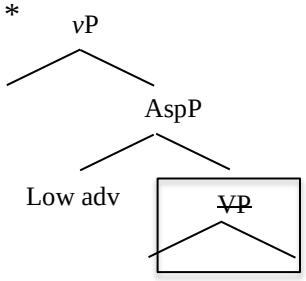
As illustrated in (88), I assume that an elided phrase is AspP, not VP. Let us see why AspP can be elided but not VP:

(89) a. Murat yavaş elma ye-di; Ali-yse çabuk elma ye-di.
Murat slowly apple eat-PAST; Ali-TOP quickly apple eat-PAST
'Murat ate an apple in an hour; Ali ate apples quickly.

b. *Murat yavaş elma ye-di; Ali-yse çabuk ~~<elma ye-di>~~
Murat slowly apple eat-PAST; Ali-TOP quickly apple eat-PAST
'Murat slowly ate an apple in an hour; Ali (did) quickly.

If VP can be elided, stranding a low adverb in SpecAspP should be fine. However, as shown in (89b), the low adverb *çabuk* 'quickly' cannot be stranded. This is illustrated in (90):

(90) *



A low adverb cannot be stranded. This is ungrammatical.

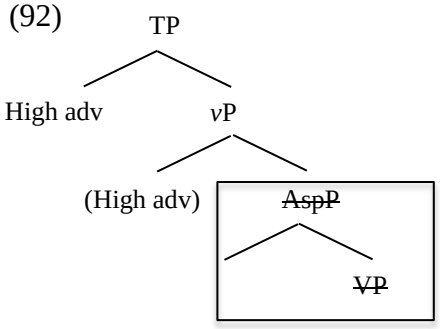
Since a low adverb cannot be stranded, (90) is ruled out. I suggest that only AspP can be elided and VP cannot, as proposed in (88).

A high adverb, on the other hand, can be stranded, as expected:

(91) a. Murat kesin elma ye-di; Ali-yse belki elma ye-di.
Murat certainly apple eat-PAST; Ali-TOP perhaps apple eat-PAST.
'Murat certainly ate apples, and Ali probably ate apples.'

b. Murat kesin elma ye-di; Ali-yse belki ~~<elma ye-di>~~.
Murat certainly apple eat-PAST; Ali-TOP perhaps apple eat-PAST.
'Murat certainly ate apples, and Ali perhaps did.'

(92)



As shown in (91) and (92), a high adverb such as *belki* 'perhaps' can be stranded since it occurs in a position higher than AspP. Based on (89) – (92), I conclude that AspP containing VP is elided.

4.6 Summary and some implications

To further support the syntactic structures I have proposed in Chapter 3, I have taken a look at prosodic structure and the syntax-prosody interface in Turkish in this chapter. Crucially, I have shown the syntactic positions of low and high adverbs.

I have proposed in Chapter 3 that a low adverb can occur in either SpecVP or SpecAspt while a high adverb must occur above *v*P. This, as I have illustrated, is supported by prosodic phrasing. The syntax-prosody interface account elaborated on here (modified from Özçelik & Nagai 2011; Nagai & Özçelik 2012) correctly predicts that multiple specifiers should not be

created at the edge of AspP/VP. In addition to high and low adverbs, I have also examined the behavior of other adverbials such as temporal adverbials. Looking closely at prosodic structure, we have again seen that clause structure obeys Antisymmetry.

I have further explored the syntactic position of external arguments and the prosodic boundary. Assuming that the external argument of a verb is base-generated in Spec*v*P and the accusative-marked object moves to Spec*v*P (Chomsky 1995), I demonstrated that a base-generated (indefinite) subject and an accusative-marked object cannot be within the same PPh, which accordingly suggests that both a subject and an accusative-marked object cannot stay at the edge of the same projection (*v*P); this presents evidence that clause structure does not allow multiple specifiers, following LCA. Therefore, the syntax-prosody interface in Turkish illustrated in this chapter is captured only under the Antisymmetric syntax.

The current proposal also shows that the syntax-prosody boundary is associated with the semantic boundary between the presuppositional and the non-presuppositional interpretations. I argue that this boundary is the edge of *v*P. This syntactic boundary/domain clearly interacts with the information structure where topic/focus elements in discourse contexts are located in particular syntactic position/domains. Given that in Turkish a topic (that can appear on the left periphery in Rizzi's (1997) sense) is prominent and can be either a subject or an object, Turkish exhibits more topic-prominent properties (Li & Thompson 1976)[124] than subject-prominent properties (Keenan 1976) (e.g. English) (though Turkish would be both a topic- and subject-subject language[125]). Languages differ with regard to the realization of topic/focus. For instance, topic-marking in Japanese is a morpho-syntactic reflex of information structure while a language

[124] Li and Thompson (1976) claims that the typological distinction between topic-prominence vs. subject prominence is a continuum, not a dichotomy.

[125] This is because a (definite/specific) subject in Turkish, functioning as the grammatical subject, appears VP-externally as an external argument, receives nominative case, and exhibits its agreement morphology on the verb.

like Chinese relies on word order. In Turkish, definite/specific DPs (and topics) occur above TP (or in SpecTP) and indefinite/non-specifics (foci) occur within *v*P – to signal and maintain the topic-comment/information structure, syntactic positions of nominals (scrambling/word order) and prosodic prominence interplay; that is, both word order and prosody are necessary to realize the information structure in Turkish.

CHAPTER 5: CONCLUSION

This dissertation has focused on syntactic positions of nominal arguments and their interaction with (low) adverb placement, exploring Turkish clausal architecture through a view of Antisymmetry. I have investigated specifically why certain structures allow low adverb modification while others do not, as shown in (1) and (2):

(1) TRANSITIVE

a. [Adam [*çabuk* [$_{VP}$ kitap oku-du]]]
man quickly book read-PAST
'The man quickly read a book.'

b. *[Adam [*çabuk* [$_{VP}$ para bul-du]]]
man quickly money find-PAST
'The man quickly found a coin.'

(2) INTRANSITIVE (UNACCUSATIVE)

a. $^{(?)}$[*Çabuk* [$_{VP}$ hastalık yayıl-dı]]
quickly disease spread-PAST
'A disease quickly spread.

b. *[*Çabuk* [$_{VP}$ doktor gel-di]]
quickly doctor arrive-PAST
'A doctor quickly arrived.'

I proposed that the (*b*)-examples in (1) and (2) are structurally different from the (*a*)-examples due to their Aktionsart (aspectual) properties (e.g. Vendler 1967; Dowty 1991). To put it more concretely, in (1) and (2), the (*a*)-examples are accomplishments and the (*b*)-examples are achievements, and achievements are different from accomplishments and activities, irrespective of unaccusativity (or transitivity). Due to their structural difference, there is a place for a low adverb to occupy in the case of accomplishments, which is why the (*a*)-examples are grammatical whereas there is no such a place in achievements, which makes the (*b*)-examples ungrammatical.

In Chapter 2, I reviewed syntactic positions of noun phrases and considered noun incorporation approaches. I claimed that noun incorporation approaches cannot account for the (un)grammaticality of (1) and (2) since these approaches assume that a bare noun is in the complement of a verb and that a bare noun is always incorporated into a verb, forming a complex predicate. One problem with this is that incorporation approaches do not distinguish different

types of predicates; thus, under these analyses, the (*a*)-examples and the (*b*)-examples in (1) and (2) above cannot be treated separately. For reasons like this, I concluded that head- and pseudo-incorporation approaches do not correctly predict syntactic positions for nominal arguments in Turkish. In Chapter 3, I claimed that internal arguments are generated in the specifier position, not in the complement position.

Further, I considered previous accounts that are concerned with the syntactic positions of Turkish nominals as well as (low) adverbs. To this aim, I reviewed Aydemir (2004) and Kelepir (2001). Though both accounts briefly touched upon aspectual properties of predicates, only structures of accomplishments are explored and achievements are never discussed. Further, none of these accounts identify the exact positions of nominal arguments and low adverbs in syntax. Therefore, to account for the syntactic position of nominal arguments and adverbs, I suggested that it is necessary to examine different types of predicates (accomplishments, activities and achievements) and the location of (low) adverbs in each construction. I then introduced the syntactic framework adopted in this dissertation, and then, examined Aktionsart properties of dynamic predicates, building on Ramchand (2008, 2011). I follow Antisymmetric syntax proposed by Kayne (1994), but adopt the weak version of Antisymmetry (Dynamic Antisymmetry) (Moro 2000). Assuming Dynamic Antisymmetry, I claimed that LCA holds only at PF in Turkish; thus, multiple specifiers are available through a course of syntactic derivation, but they must be eliminated by the time PF is reached.

In Chapter 3, examining aspectually different types of predicates (accomplishments and achievements in particular), I proposed that there is an aspectual projection, i.e. AspP, on the top of VP. AspP I postulate here indicates a dynamic process that is durational. Therefore, I assume that AspP projects in accomplishments and activities since they are durational. Achievements, on

the other hand, do not have AspP since events denoted by achievements are punctual. I further assume that telic predicates such as accomplishments and achievements take a resultative secondary predicate (ResP expressing a result state) as their complement while atelic predicates such as activities can optionally have ResP in their structure (which makes activities become accomplishments).

Establishing syntactic structures for accomplishments (and activities) and achievements, I examined the (un)grammaticality in (1) and (2) above, repeated here as (3) and (4):

(3) TRANSITIVE

a. [Adam [$_{AspP}$ *çabuk* [$_{VP}$ kitap oku-du]]]
man quickly book read-PAST
'The man quickly read a book.'

b. *[Adam [*çabuk* [$_{VP}$ para bul-du]]]
man quickly money find-PAST
'The man quickly found a coin.'

(4) INTRANSITIVE (UNACCUSATIVE)

a. $^{(?)}$[$_{AspP}$ *Çabuk* [$_{VP}$ hastalık yayıl-dı]]
quickly disease spread-PAST
'A disease quickly spread.

b. *[*Çabuk* [$_{VP}$ doktor gel-di]]
quickly doctor arrive-PAST
'A doctor quickly arrived.'

A low adverb like *çabuk* 'quickly', I argued, can appear either in SpecVP or SpecAspP. In (3a) and (4a), *çabuk* 'quickly' can occur since SpecAspP is available. Sentences (3b) and (4b), however, are ungrammatical because there is no place for the low adverb to occupy; AspP does not project in achievements; thus, SpecAspP is not available in this case. Note also that SpecVP is not available, either, since the bare internal object *para* 'coin/money' already occupies this position. Thus, if the low adverb *çabuk* 'quickly' occurred in SpecVP here, multiple specifiers would be created. Therefore, (3b) and (4b) are ruled out due to a violation of LCA. The current proposal also accounts for why examples like (5), in which *Num* NP occurs, are ungrammatical:

(5) a. *Adam [*çabuk* [$_{AspP}$ bir [$_{VP}$ kitap oku-du]]] (Accomplishment)
man quickly one book read-PAST
'The man quickly read a book.'

b. *Adam [*çabuk* [$_{VP}$ bir para bul-du]] (Achievement)
man quickly one money find-PAST
'The man quickly found a coin.'

Following the idea that there is a close relationship between NumP and AspP (e.g. Megerdoomian 2008; den Dikken 2010), I argue that number and quantity expressions (NumP) in Turkish occur in SpecAspP whenever AspP and number/quantity phrases appear in a structure. Since the Asp head carries features, including number features, it attracts the particular features of nouns to SpecAspP (cf. Megerdoomian 2008). We have assumed that AspP projects only in accomplishments (and activities). I have argued that the base-generated NumP appears in SpecAspP and the bare internal object *kitap* 'book' stays in SpecVP, as shown in (5a). The low adverb *çabuk* 'quickly' cannot occur in this sentence since neither SpecAspP nor SpecVP is available. (5b) is ungrammatical, as predicted. As has already been discussed, since the internal argument *bir para* 'a coin' occupies SpecVP and AspP does not project in an achievement, there is no place for an adverb to occupy in (5b). This, once again, shows that phrase structure follows Antisymmetry, and that it is necessary to assume AspP in accomplishments and activities.

In Chapter 4, I presented further support from syntax-prosody interface. Assuming that sentential stress is syntactically assigned (Özçelik & Nagai 2011), and slightly modifying Özçelik & Nagai's (2011) and Nagai & Özçelik's (2012) accounts, I argued that the phonological boundary is the edge of *v*P and it is closely connected with the (non)presuppositionality. Therefore, it follows that the syntax-prosody boundary corresponds to the (semantic) boundary between the presuppositional and the non-presuppositional domains (cf. Diesing 1992; Kelepir 2001). Prosodic evidence has also demonstrated that non-specifics never move out of *v*P whereas specifics must move from *v*P/VP to a higher position, and that multiple specifiers are ruled out at PF. This analysis strongly suggests that prosodic facts become meaningful only when the Antisymmetric view of syntax is considered.

In conclusion, the current proposal has rather crucial implications for Turkish clausal architecture: (*i*) Aktionsart (aspectual) properties of predicates play a role in determining their syntactic structures, (*ii*) there is an aspectual projection (AspP) in accomplishments/activities, but not in achievements, and (*iii*) clause structure obeys the (weak version of) Antisymmetric syntax. The current proposal also provides implications for the relation between syntax and information structure. I have shown that the syntax-prosody boundary is associated with the semantic boundary between the presuppositional and the non-presuppositional interpretations, which is (at) the edge of *v*P. Crucially, the edge of *v*P serves as the boundary for both prosody and presuppositionality (at least in Turkish). Under Chomsky's (2000, 2001, 2008) phase theory, CP and *v*P are phases, by Phase Impenetrability Condition: In Phase α with head H, the domain of H is not accessible to operations outside α, only H and its edge are accessible to such operations (Chomsky 2000: 108). Based on data and the result drawn from Turkish, an entire *v*P (including its left edge) is a spell-out domain.

This syntactic boundary/domain interacts with the information structure where topic/focus elements in discourse contexts are placed in particular syntactic position/domains. Languages use different linguistic cues/strategies in the realization of topic/focus. Such linguistic signals are typically the same as grammatical functions (e.g. case morphology, agreement, word order, and so on). In Turkish, definite/specific DPs (and topics) occur above TP (SpecTP/SpecTopP) and indefinite/non-specifics (foci) occur within *v*P (Spec*v*P and SpecVP) (or a immediately pre-verbal position). Language like Hindi/Urdu and East Armenian behave in a similar way. Those particular syntactic specifier positions are clearly associated with the role of topic-comment/information structure, not just grammatical functions. It has been shown from Turkish data that syntactic positions of nominals (scrambling/word order) and prosodic

prominence interplay in order to signal and maintain the topic-comment/information structure, which can also be observed across languages (such as German, Russian, etc.). Both word order and prosody are necessary to realize the information structure in Turkish; thus, neither syntax nor prosody should be reduced.

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