CHAPTER I

INTRODUCTION

1.1. Aim

The aim of this thesis is to investigate the implications of the SPLIT INFL hypothesis for Turkish, a head final, agglutinative language. SPLIT INFL hypothesis (Pollock, 1989:365) claims that Agreement (AGR) and Tense (TNS) are not features under the Inflection node, but syntactic heads. The basic motivation for splitting the INFL node in English and French (Pollock, 1989) is the structure predicted by verb movement in French and the ungrammaticality of such a movement in English. In Turkish, however, verb movement is not required for similar structures. This thesis will investigate the syntactic motivations for the occurrence of independent Agreement, Tense, Negative, Aspect and Modality Phrases in Turkish, a language typologically different from those analyzed within the SPLIT INFL hypothesis. The discussion of the thesis will be the Minimalist Program as proposed by Chomsky (1995).

1.2. Theoretical Framework

The theoretical framework of the SPLIT INFL hypothesis (Pollock, 1989) is the Principles and Parameters theory (P&P), the former state of Generative Grammar. P&P is based on head government relations operating at four levels of representation, i.e. D-structure, S-structure, Logical Form and Phonetic Form. Under the impact of new empirical evidence, new questions such as “How perfect language is” led to the Minimalist Program (Chomsky, 1995), which has been chosen as the framework for analysis. The basic notions and principles of the MP will be presented in section 1.2.1.; in 1.2.2., the arguments of the SPLIT INFL hypothesis (Pollock 1989) will be reviewed; and in 1.2.3. arguments in favour of the SPLIT INFL hypothesis (Ouhalla 1991) will be presented.

1.2.1. Basic notions and principles of the Minimalist Program (MP)

The Minimalist Program assumes that a language consists of two components, namely a lexicon and a computational system (CS). “The lexicon specifies the elements that CS selects and integrates to form linguistic expressions” (Chomsky, 1995:6). Each linguistic expression is represented at two levels: Logical Form and Phonetic Form. The MP assumes that derivations are constrained by certain economy principles at the interface levels.

1.2.1.1. Economy Principles

Among the infinite derivations possible within a computational system, natural languages are assumed to “bar those that are not optimal in a theory-internal sense” (Chomsky, 1995:9) at the interface levels. Simplicity and economy, the basic principles observed in natural phenomena, are regarded fundamental for linguistic theory. Consequently, MP operates on three major economy principles, namely Shortest Move, Greed and Procrastinate.

i) Basic to the principle of Shortest Move is that a constituent must move to the first proper position. Last resort implies the exhaustion of all other possible positions for a derivational operation.
ii) The principle of Greed states that a constituent moves to satisfy its own needs, not to satisfy the needs of another constituent.
iii) The principle of Procrastinate prefers derivations “that hold off on movements until after Spell-Out” (Marantz, 1995:357), so that the results of such movements do not affect PF.

1.2.1.2. Structural Relations
MP dispenses with government relations. In MP the fundamental structural relations are based on two local relations, namely Spec-Head and Head-Complement relations, and Chain Link.
With respect to domains, MP is concerned with minimal subsets of the domain, complement domain and residue domain of a head, where these are defined as the following:
i) the domain of a head is the set of nodes contained in the maximal projection of the head that are distinct from and do not contain the head;
ii) the complement domain of a head is the subset of the domain dominated by the complement of the construction;
iii) the residue domain is the nodes left when the complement domain is extracted from the domain (Chomsky, 1995:177-80).
The minimal domain just includes the categories locally related to the heads. The minimal complement domain of a head is called its internal domain, and the minimal residue of a head is its checking domain. Elements of the internal domain are the internal arguments of the head, while checking domain is involved in checking inflectional features. A head has no minimal, internal or checking domains when it is raised from its position to form a chain.

1.2.1.3. Features and Convergence
Morphological features associated with tense, case and agreement play a role in the computational system of language but they do not play a role at the PF or LF interfaces. These features must be eliminated prior to PF and LF. Failure to eliminate them would cause a derivation to collapse. These features check off or eliminate corresponding features on a Verb that moves up and adjoins to corresponding functional categories. In MP these functional nodes are not positions in which inflectional affixes are inserted. Inflectional affixes are attached in the lexicon. The lexicon is understood as “a list of ‘exceptions’, whatever does not follow from general principles” ; these principles fall into two categories: “those of Universal Grammar and those of a specific language”. (Chomsky, 1995:235). “A lexical entry provides, once and for all, the information required for further computations - in particular, for the operations of the phonological component (including morphology, we assume)” (Chomsky, 1995:239).

1.2.2. The SPLIT INFL Hypothesis (Pollock, 1989)
Pollock (1989) argues that INFL “should not be considered as one constituent with two different sets of features” (1989: 365) with respect to TNS and AGR but that each of these sets of features is the syntactic head of a maximal projection, AGRP and IP (or TP). The syntactic motivation underlying Pollock’s claim is the necessity for a VP landing site in short V-movement in English and French. He further suggests that both English and French
have a NEGP and each of these maximal projections is a potential barrier for certain types of movement.

1.2.2.1. Verb Movement in English and French

Pollock’s arguments on the nature of IP is based on the structures predicted by verb movement in English and French. He illustrates his argument with the following structures (1) and (2), where adverbs behave differently. In (1a) and (2a), English structures with NEG or Adverb occur between the Verb and the Object, yielding the structures ungrammatical. In (1b) and (2b), however, the same structures are grammatical in French:

1. (a) *John likes not Mary.
   b. Jean (n’) aime pas Marie.
2. (a) *John kisses often Mary.
   b. Jean embrasse souvent Marie.

The structures of (2a+b) are given in (3 a+b) respectively:

3. (a) *IP
    NP    I’
    I     VP
    Adv   V’
    V     NP

   (b) IP
    NP    I’
    I     VP
    Adv   V’
    V     NP

(1a) is excluded because the verb would have to move to INFL, which it cannot, since verb movement is restricted to have and be in English, as may be observed in (4) below:

4. He hasn’t gone./ Has he gone?

For this restriction, Pollock’s explanation is that these verbs fail to assign any theta-role to the constituents they are subcategorized for, therefore Agr in English, which is opaque to theta role assignment, does not block the movement of these verbs. As for the other lexical verbs, theta grid cannot percolate up to Agreement. However, in French (2b) all lexical verbs undergo Verb Movement because Agreement is transparent in French.

(2a) is excluded because the only way for the adverb often to end up between the verb and its object would be for the verb to move to Infl, which it cannot. (2b) is grammatical in French since verb movement is not only allowed but also obligatory in tensed clauses. Pollock further argues that English and French differ in the number of base positions they allow for adverbs of frequency. English, but not French, has one between Infl and the Subject NP, as may be seen in structures like (5) and one VP-initial position, as may be seen in (6) below:

5. She is seldom happy.
6. Sometimes I go there.
There is need for an extra position between the Subject and the Auxiliary in the structure illustrated in (7) below:

(7) I never did hear such a thing.

1.2.2.2. The Structure of IP

Pollock argues in favor of the following conclusions for the structure of IP:
(i) There is an AGP in French and English. It is defective (that is, it is not an inherent barrier) in English, but not in French. AGRP in both languages is a complement of Tense or Neg.
(ii) IP should be analyzed as TP and seems to be an inherent barrier.
(iii) There exists a NegP in both languages, also an inherent barrier (not does not block movement of be/have/do).

1.2.3. Arguments in favor of the SPLIT INFL Hypothesis

Problems posed by the I-analysis as observed by Ouhalla (1991) and his arguments in favor of the Split InfI hypothesis are significant for the discussion on motivations for Split Infl in Turkish.

1.2.3.1. Inflectional or not?

One of Ouhalla’s arguments is that AGR and TNS are inflectional elements; however, English NEG, MOD and the infinitival “to” are not (Ouhalla, 1991:56). In this respect, Inflection specifies a position rather than a specific category or a class of categories, hence licensing the presence of uninflectional elements underneath it. This, in fact, “violates the assumption that head categories project from the lexicon” (Ouhalla, 1991:56). SPEC, for instance, defines a position rather than a specific category. However, there is no reason why a head category is regarded as defining a position.

1.2.3.2. IP : Nominal or Verbal?

A theoretical problem the I-analysis poses is that the structure of the I projection in the I-analysis violates the spirit of X-bar theory in two different but related respects.
(i) The fact that it is multi-headed violates the isomorphic constraint on categories and their projections implicit in X-bar theory (Chomsky, 1988 as cited in Ouhalla, 1991:56).
(ii) I dominates elements some of which are nominal while others are verbal. Chomsky (1981,1982) and Rizzi (1982 as cited in Ouhalla, 1991:56) treat AGR as a nominal due to the fact that it contains nominal features, while Modals and TNS are assumed to be verbal. In this case there is a clash of features, which poses the question “Which of these elements determines the categorial nature of the IP projection?” (Ouhalla, 1991:56).

1.2.3.3. The order of the I-elements:

The order of inflectional elements differs from one language group to another, due to word order variations (Ouhalla, 1988, as cited in Ouhalla, 1991:57). In languages like Berber and Arabic AGR appears inside TNS, in languages like Italian and Chichewa AGR appears outside TNS, as is the case in Turkish.
Likewise, the order of NEG with respect to AGR and TNS differs from one language group to another, depending on the word order (Ouhalla, 1991:105-111). In languages like Turkish and English NEG appears inside AGR and TNS. In languages like Berber and Arabic NEG appears outside AGR. Therefore, an analysis which assumes AGR, TNS and
NEG to be all dominated by a single syntactic node would not be able to predict the differences in order. The only way to account for their ordering would be imposing extrinsic, language-specific ordering rules. Still, I-analysis would fail to relate the order of these elements to that of the subject and verb whereas Ouhalla claims that the difference in the order of the I-elements reflects significant structural and consequently word order differences involving the subject and the verb.

1.2.3.4. Independent Syntactic Categories

Each of the I-elements seems to behave like an independent syntactic category in a number of different respects. An illustrative example is the behaviour of the NEG, which will be discussed in Turkish (Ch.III). Compare the following examples in English (Ouhalla, 1991:58):

(8) a. John voted conservative.
   b. John did not vote Conservative.
   c. * John voted not Conservative.

The NEG element seems to prevent the verb from merging with AGR and TNS. Instead AGR and TNS appear attached to the dummy element do (Chomsky, 1955 as cited in Ouhalla, 1991:58). In the I-analysis, NEG is base generated under I along with AGR and TNS. In this case the facts illustrated by the examples in (8a,b,c) fail to receive proper explanation. V movement to I seems to be prevented by the presence of NEG. In other words, NEG seems to behave like an independent head category which blocks V-movement to AGR/TNS under the Head Movement Constraint, which states that head movement is strictly cyclic and that movement cannot occur across heads (Travis, 1984, as cited in Haegeman, 1995:606). Observe the structure below:

(9) IP
   Spec    I'
   I
   AGR    TNS    NEGP
   NEG    VP
   V

If NEG is taken to be an independent syntactic category which heads its own maximal projection, NEGP, and if it is located between I and VP, V-movement directly to I, across NEG, gives rise to a violation of the HMC, hence the ungrammatically of (6c). V-movement to I through NEG which would be consistent with the HMC (for Head Movement Constraint) is excluded “by the fact that neither the verb nor the NEG element is affixal”, in other words, V-movement to NEG is unmotivated. In Turkish, however, the NEG element is affixal, therefore V-movement to NEG is motivated, as will be discussed in (2.1.2).

1.2.3.5. Tense and Agreement

The claim that TNS and AGR are independent categories (Pollock 1989) finds supportive evidence in languages such as French, where TNS serves as a landing site for the verb and
also as an adjunction site for adverbs. Another syntactic evidence that Ouhalla (1991:66) presents in favour of this claim is that TNS can host a moved clitic, which is a syntactic feature of a head only. Consequently, the assumption that TNS and AGR are base generated as independent categories each heading its own maximal projection receives a natural explanation in Berber. A similar behaviour will be illustrated in Turkish in section (3.2).

1.2.3.6. Modal as an Independent Head

Ouhalla (1991) claims that MOD as well as TNS and AGR, behaves as an independent syntactic head. In this approach, MOD was generated within VP, but historically lost the ability to take arguments; finally it lost the ability to assign a thematic role. Consequently, modals acquired the status of functional categories and were excluded from the predicate phrase.

Ouhalla’s basic argument in favour of an independent MOD Phrase is based on Pollock’s claim that English AGR is weak and cannot attract the verb, therefore Verb does not move to AGR but MOD moves to TNS as illustrated in (10) below:

(10)     AGRP
  Spec             AGR’
  AGR            TNSP
  TNS            MODP
  MOD               (NEGP)
  (NEG)                   VP
  V              ........

To conclude, Ouhalla argues that the feature MOD, formerly checked under INFL is another syntactic head in the structure.

1.2.3.7. The order of Functional phrases and its morphological implications

Having presented the arguments in favour of the SPLIT INFL hypothesis and having claimed the occurrence of TNS and AGR as independent categories, each heading its own maximal projection, Ouhalla (1991:67) focuses on the order of these functional categories in various languages. Based on the observations made on different languages, he derives the word order parameter from properties of morphological items.

He observes that in SVO languages, AGR selects TNS, yielding either one of the orders (V T AGR) or (AGR T V). In VSO languages, TNS selects AGR, yielding either (V AGR T) or (T AGR V) orders. This systematic behaviour leads to the generalization that TNS initial languages tend to have SVO order, while AGR initial languages tend to have VSO.*

Ouhalla distinguishes between the English AGR and the French AGR, the former being ‘weak’, the latter ‘strong’ (Pollock,1989). This difference in strength, together with the occurrence of an adverb phrase in his examples, accounts for the need to split INFL.

To conclude, Pollock (1989) claims that there is an AGRP and a TP in English and French. The syntactic motivation underlying this claim is the necessity for a VP landing site in English and French. Ouhalla follows Pollock in claiming that Agreement and Tense are heads of maximal projections. He furthers this approach so as to claim that Negative, Aspect and Modal are heads as well. Through this analysis, he parametrizes languages with respect to the order of functional categories Tense and Agreement and claims that word order typology is based on this parametrization.
CHAPTER II

MOTIVATIONS FOR THE SPECIFIER POSITION IN TURKISH

The SPLIT INFL hypothesis claims that functional categories formerly conglomarated are projected at different hierarchical levels within the structure. Splitting the Inflection node into functional categories AGR and TNS accounts for the contrastive structures in English and French (Pollock, 1989). The applicability of the SPLIT INFL hypothesis to Turkish, however, has not been investigated.

The basic motivation for SPLIT INFL in English and French as claimed by Pollock (1989) is the necessity of a landing site for verb in short movement. The trace left behind, an event variable, is bound by Tense. It follows that an AGRP is necessary because in French and English both the heads and the specifiers - hence Subjects - are on the same path. Therefore, the arguments in the SPLIT INFL hypothesis focuses on the properties of AGR and TNS as heads.

In Turkish, which is a SOV language, however, heads have a path opposite to that of SPECs, therefore the argument for English and French V-movement does not hold. Furthermore, due to its agglutinative nature, Turkish presents contradictory behaviour for Ouhalla’s claims about NEGP. Consequently, the motivations for SPLIT INFL in Turkish cannot be those stated by Pollock (1989) and Ouhalla (1991).

In the following, properties of functional categories AGR, TNS/ASP, NEG and MOD as heads will be discussed in 2.1. 2.2. will present syntactic motivations for Specifier positions of functional phrases.

2.1. Properties of AGR, TNS/ASP/MOD and NEG as syntactic heads

In Turkish, Agreement, Tense/Aspect/Modality and Negative behave as syntactic heads, justifying the investigation of the SPLIT INFL hypothesis for the language. Further syntactic evidence to the claim that NEG is a head will be presented in Chapter III. Chapter IV will present supporting evidence to the analysis of T/AP as a head.

2.1.1. Agreement in Turkish

Agreement has been regarded a Head and its SPEC is accepted to be the position where Subject NP moves for Subject Agreement in former studies on Turkish (Özsoy 1997, among others). Csato (1986) has arguments along this line. The reasons for considering AGR a head are as follows.

Agreement occurs in the final position of any given Verb complex or a substantive predicate, independently of Tense, as may be observed in (1) below. There are two Agreement Paradigms in Turkish: a verbal AGR (1a) and a nominal AGR (1b):

(1) a. Ben Ayşe’yi seviyor-um.
    I PropN-ACC love-Prog - 1st Pr AGR
    ‘I am loving Ayfel’

    b. Sen hasta-sın.
    You ill-2Pr. AGR
    ‘You are ill’

Secondly, agreement is the final, therefore the highest constituent in any verbal or nominal clause, which may be regarded a property of being a Head in a Head Final Language.
Thirdly, its position is definite and does not allow movement*. This definite final position supports the claim that it is the Head of sentence as proposed by Brendemoen and Csato (1984:185), who presented evidence based on Binding Principles and Case Theory. Fourth evidence is apparent in dependent nominal clauses in Turkish, where AGR behaves as a Genitive Case assigner. Consider the structures below:

(2) a. Herkes bunu onayladı.
   Everybody this-ACC confirm-Past-3rp person AGRØ
   ‘Everybody confirmed this’

b. (Ali) [herkes-in/*Ø bunu onayla-dı-€-€->]-nı
   PropN everybody-Gen this-ACC confirm-NOM-3rd AGR -ACC
   anla-dı.
   understand-PAST-3rd person AGRØ
   ‘Ali understood that everybody has confirmed this’

c. (Ali) [herkes-in/*Ø bunu onayla-ma-sı-]-ndan
   PropN everybody-Gen this-ACC confirm-NOM-3rd AGR -SOURCE
   hofllanmadı.
   like-Neg-PAST- 3rdAGRØ
   ‘Ali was not content with everybody confirming this’

Under the I-analysis, the matrix Subjects in (2)a-c are assigned Nominative Case structurally by INFL which is assigned ([+ Tense] and [+ Agreement]). The object of sentence (2)a is marked Accusative by the Verb which governs it. The objects of (2)b and (2)c are embedded clauses and the embedded clause in (2)b is marked Accusative by the matrix verb, whereas the one in (2)c is inherently marked Ablative by the matrix Verb. The embedded subjects, however, are assigned Genitive Case. The embedded Verbs assign Accusative to their internal arguments, that is, the objects. There, seems to be no potential case assigner to the subjects since there is no overt Tense yet we have ungrammatical structures unless they are assigned Genitive.

The INFLs in the embedded structures are overtly marked [+ Agreement] and Agreement is the final and highest constituent of the embedded clause. the embedded Verb in (b) bears the nominalizer -DIK and the 3rd person singular Nominal Agreement Marker -I, and the embedded V in (c) bears the nominalizer -mA and the 3rd person singular Nominal Agreement marker. Therefore the only possible Case Assigner to the Subject is Agreement. Nominal Agreement assigns Genitive Case to the Subject NP of the embedded sentences. In this respect, it can be argued that matrix Subjects are assigned Nominative by the Verbal Agreement in their predicates, since [+Tense] requires a Verbal Agreement on the Predicate. In conclusion we can argue that it is Agreement which assigns case to subject NPs in Turkish, Verbal Agreement assigning Nominative in finite clauses, Nominal Agreement assigning Genitive in non-finite clauses.

To conclude, properties of Agreement discussed above, namely its definite highest position in all clause structures and its function as the case assigner in SPEC Head relation provide sound evidence for its syntactic status as a Head.

2.1.2. Tense, Aspect and Modality in Turkish

Tense, Aspect and Modality are marked morphologically by the Tense/Aspect/Modality (TAM) morphemes on the verb in Turkish. It has long been claimed that morphemes {-Ar/-Ir, -mlfl, -DI, -Iyor, -AcAK} have more than one function: Tense, Aspect and Modality (Yavafl,1980,1982; Slobin and Aksu 1982; Taylan, 1988, 1993, 1996, 1997; Giorgi and Pianesi, 1997). This multifunctional property of TAM morphemes poses the question
whether they are all base-generated under the same maximal projection. Such an analysis would require an ordering rule. A possible account on this issue, following Pollock (1989), is whether they occur at the Spec of Tense, or as the complement of it. Tense is a sine qua non constituent of any sentence. In Turkish, Tense has a definite position preceding AGR. Positing Aspect and/or Modal at the Specifier position of Tense poses empirical problems in Turkish because Specifiers are on the Subject path whereas these categories need to occur on the Verb path, (Göksel, 1997) opposite to that of Subject. At this point it suffices to say that their definite position preceding AGR and following the verb stem in affirmative structures or the NEG in negative structures has implications with respect to their status as a head. To support this hypothesis, however, evidence in favour of a hybrid T/A Phrase will be presented in Chapter IV and further morphological evidence in favour of a [SPEC T/AP] will be presented in Chapter V.

With respect to Modals, it will be shown that Modal Adverbs create a domain for Deontic Modality (in section 2.2.3.) and that Epistemic Modality occurs beyond the scope of this domain, namely in a higher hybrid projection under T/AP (in Chapter IV).

2.1.3. Negative in Turkish

Negative is Marked with the negative suffix -mA* in verbal structures and with the lexical de€il in substantive structures. Negative intervenes between deontic and modal morphemes, which provides evidence supporting the claim that it is a syntactic head. Further syntactic evidence in favour of this claim will be presented in Chapter II, where it will be argued that Negative is parasitic on, i.e. a complement of T/AP and that Neg behaves as a blocking category in substantive structures.

2.2. Syntactic motivations for the Specifier position in Turkish

Pollock’s (1989) arguments on the necessity of a landing site for verb in short movement is based on the observation that adverbs occur between the verb and the object in French. In Turkish, however, V-movement is not necessary for such an order of constituents; when V moves for feature checking, it does so on its own path. Therefore a test on adverb scope and position as applied in Pollock (1989) does not hold for Turkish. In Turkish, adverbs can occur in sentence initial, medial or final positions. Their scope properties with respect to their positions need to be investigated. Two possible positions where adverbs are base generated are either as adjuncts or at the Specifier position of a functional projection. In former studies on Turkish, Adverbs have been assumed to be VP adjuncts (Kennelly, 1996). This possibility, however, is not exhausted in this thesis. Taking into consideration that adverbs of frequency, modal adverbs and Negative Polarity Items share certain semantic concepts with functional categories, this thesis focuses on the second possibility, i.e. that they may be base generated at a structurally related position to the heads. Since within MP the basic structural relations are Spec - Head or Head - Complement relations, a possible position structurally related to the heads is the Specifier position. Having made a comparative analysis of head movement in various languages, Cinque also (1994 as cited in Giorgi and Pianesi, 1997:15; Cinque, 1997) argues that Spec positions associated with functional heads can be filled by the same kind of elements, mostly adverbial. Therefore, in this chapter, the syntactic positions and scope properties of adverbs will be analyzed as a theoretically possible motivation for SPEC positions. In this thesis, Subject NP is assumed to be base generated within VP and to move to [SPEC AGR] position for feature checking. Based on the arguments in favour of AGR as head in Turkish, syntactic motivations for the [SPEC AGR] position in Turkish will not be discussed.
The adverbs under analysis in this section are those having semantic correspondences with functional categories within SPLIT INFL hypothesis: Adverbs of Frequency sharing the semantic feature temporality with Tense/Aspect (2.2.1.), Negative Polarity Items sharing the feature negative with NEG (2.2.2.), and Modal Adverbs sharing the feature modality with MOD (2.2.3.).

2.2.1. Adverbs of Frequency in Turkish

There is a close semantic relation between the concepts Tense/Aspect and Frequency in that they are both temporal notions (Comrie, 1976, 1985; Giorgi & Pianesi, 1997). Data presented below (1-5) indicates that this semantic relatedness is supported by the observation that all of the so called “Tense/Aspect Markers” (Yavâfl, 1980, 1982; Taylan, 1988, 1996, 1997) can cooccur with adverbs of frequency.

(1) Ben sık sık kek yaparım / yapacağım/ yapıyorım / yaptım/ yapmışım
'I often make /will make/ am making/ made/had made a cake'
(2) Ben her zaman kek yaparım / yapacağım/ yapıyorım / yaptım/ yapmışım
'I always make /will make/ am making/ made/had made a cake'
(3) Ben hiç bir zaman / asla kek yapmam / yapmayacağım/ yapmıyorum/ yapmadım/yapmışım
'I never make /will make/ am making/ made/had made a cake'
(4) Ben nadiren kek yaparım / yapacağım/ yapıyorım / yaptım/ yapmışım
'I rarely make /will make/ am making/ made/had made a cake'
(5) Ben ara sra/arada bir kek yaparım / yapacağım/ yapıyorım / yaptıım/ yapmışım
'Now and then I make /will make/ am making/ made/had made a cake'

The observation that adverbs of frequency co-occur with Tense/Aspect markers presents evidence in favour of the claim that a close structural relation exists between Adverbs of frequency and Tense/Aspect. In this section, an analysis based on the scope properties of adverbs and an alternative analysis with respect to the scope properties of focal stress will be presented to account for this structural relatedness and the former analysis will be assumed.

2.2.1.1. Structure of sentences with adverbs of frequency in Turkish

Consider the structure in (6):

(6) Ben sık sık Ayfle-yi görürüm.
'I often see Ayfle'

If we adopt the I-analysis and assume that Adverbs are VP adjuncts as has been claimed before (Kennelly, 1996), we have the following structure, where the ADV Obj V order in (6) cannot be obtained:

(7) IP
    Spec    I'
    Sbj    I
    VP'    Adv
    VP
The structure in (7) yields the [Obj Adv V] order in sentence (8) which is also grammatical, yet with a different scope of the adverb:

(8) Ben Ayfle-yi s•k s•k gör-üyor-um.
    I    PropN-ACC  often  see-Pr.Prog.-1stPer Sg AGR
    ‘I often see Ayfle’

Supposing that the constituent in the preverbal focus position carries the primary stress, the presuppositions and entailments of (6) and (8) are different as may be observed in (9) and (10) below. The presuppositions of (6) and (8) are given in (9a,b) and the entailments of (6) and (8) are given in (10a,b) respectively:

(9) a. Ben s•k s•k birini görüyorum.
    ‘I often see someone.’
b. Ben Ayfle’yı görüyorum.
    ‘I see Ayfle.’

(10)a. Ben s•k s•k Ayfle’yı görüyorum, Ahmet’i de€il.
    ‘I often see Ayfle, not Ahmet.’
b. Ben Ayfle’yı s•k s•k görüyorum, bazen de€il.
    ‘I often see Ayfle, not sometimes.’

For the structure to yield the sentence in (6), Adverb needs to occur on the subject path rather than the verb path. It cannot occur in SPEC IP since it has already been claimed that AGR is a head (in section 2.1) - hence the head of Sentence (cf. George and Kornfilt, 1982)- we cannot assume an IP. It cannot occur in [SPEC AGR], because [SPEC AGR] is the landing site of Subject NP. Having split the IP into AGRP, we can assume that TNS, the basic feature left among the IP features, is a head (as has been argued in 2.1.2. and will further be supported in the discussion in Chapter IV). If we assume a TP under the SPEC of which frequency adverbs are located, (6) has the following structure in (11):

(11) AGRP
    SPEC A
    Beni -um
    TP
    SPEC T
    s•k s•k -yor
    VP
    SPEC V’
    ti V
    NP V gör-
    Ayfle’yı

The structure in (11) accounts for (6), yet not for (8). For the adverb to occur between the object and the verb, Obj NP must move to a higher position, since the other option, that is a downward movement of Adv, is not possible for theory internal reasons. There is, however, no Argument position available in the structure for the Obj NP to move to. In this case, either Adv is not located under [SPEC TP] and NP moves up to Spec TP, or there is another A-position - an argument position which is a potential theta position, associated with grammatical functions (Haegeman, 1995:115).
Even if we assume that Adv is not located under [SPEC TP] and that position is available for the Object NP there is no motivation for it to raise to that location. In MP, however, movement has to satisfy Greed, that is a constituent moves only to satisfy its own needs. That gives rise to another possibility: that there is another A-position preceding TP. Such a position actually does not exist (unless there is motivation for AGRPs to have AGRPo as its complement, which would have TP as its complement.).

There is a third option which would account for the structure in (8). If frequency adverbs are VP adjuncts, the structure in (8) would not require movement of the object. In that case, however, we need to alter the structure in (11), to account for the adverb preceding the object.

The LF structure in (11) accounts for “Ben s›k s›k Ayfle’yi görüyorum”, where adverb s›k s›k has both the object and the V+T+AgrS in its scope. As for “Ben Ayfle’yi s›k s›k görüyorum”, Adverb takes only the Verb complex under its scope, hence it must be a VP adjunct.

Another theoretically possible position for the frequency adverb in (11) would be a TP adjunct, a position higher than the VP. Such a position, however, would not be able account for the semantic relatedness of frequency adverbs and Tense as strong as the SPEC Head relation the [SPEC TP] analysis provides.

This analysis leads to the conclusion that two positions must be recognized for the frequency adverbs in Turkish; namely one under [SPEC TP] when the verb complex is under its scope, another as VP adjunction when both the object and the Verb complex is under its scope.

2.2.1.2. An alternative analysis: Focal scope

The observation that the structures in (6) and (8) have different presuppositions and entailments indicate that adverbs display different scope properties based on their positions. There is, however, another factor which might have caused the difference in the interpretation of (6) and (8). In (6) the focal stress is on the Object Ayfle, whereas in (8) it is on the adverb s›k s›k. The scope relations may be due to focal stress rather than the placement of the adverb. To determine whether it is the position of the adverb or focal stress that exhibits scope properties, we can check the interpretation of the same structures by keeping the focal stress on the Subject as a constant. Consider (12) and (13) below:

(12) Ben s›k s›k Ayfle’yi görüyorum.
    I      often       PropN-ACC see-Prog-1st PrSg
(13)  Ben Ayfle’yi s›k s›k görüyorum.
    I      PropN-ACC often     see-Prog-1st PrSg
         'I often see Ayfle'

The presuppositions and entailments of (12) and (13) are given in (14a and b) and (15a and b) respectively:

(14) a. S›k s›k Ayfle’yi görüyorum.
    'I often see Ayfle'
  b. Ayfle’yi s›k s›k görüyorum.
    'I often see Ayfle'
(15) a. S›k s›k Ayfle’yi gören benim, Ahmet de€il.
    'It is I who sees Ayfle often, not Ahmet'
  b. Ayfle’yi s›k s›k gören benim, Ahmet de€il.
'It is I who sees Ayfe often, not Ahmet'

As seen in (14) and (15), there is no meaning difference between (12) and (13) despite the fact that the adverb occurs in different positions. It might be the case that it is the focal stress which exhibits scope properties rather than the adverb. This issue requires further investigation beyond the scope of this thesis.

The observation on focal stress requires further investigation in that “focus is not the only determinant” (Diesing, 1992:50) in interpretation of sentences. Diesing (1992:50) argues that “in appropriate contexts, any one of the possible readings can also arise with neutral focus...” and that “focusing contrasts ... do not ... constitute counterexamples to the proposal that the syntactic structure of the sentence plays an important role in determining its semantic partition.”

Furthermore, Diesing (1992:50) argues that “focus part’ of the sentence corresponds to the nuclear scope of the logical representation and the extrafocal portion corresponds to the restrictive clause.” Taking into consideration that the nuclear scope is within the domain of VP, in structures where the adverb does not bear the focal stress, the adverb cannot occur as a VP or V’ adjunct; it has to occur within the domain of the restrictive clause, i.e. the domain of inflectional categories. If adverbs are adjuncts, it is more likely that they are adjuncts of a higher category, such as a TP adjunct, rather than a VP adjunct.

To conclude, the latter analysis, i.e. the scope properties of focal stress in Turkish requires further investigation along the arguments of Diesing, which, in any case, would leave the unfocused adverb beyond the VP domain. The former analysis, i.e. scope properties of adverbs in Turkish, requires further syntactic tests. Both lines of research lie beyond the scope of this thesis. Therefore, within the argumentation in this thesis the former analysis will be assumed because the semantic relatedness between TNS/ASP and adverbs of frequency implies a close structural relation which could be a Spec-Head relation within the minimal domain of a Tense/Aspect Phrase.

2.2.2. Negative Polarity Items (NPIs)

Negative polarity items are those necessitating the occurrence of a negative marker within the structure. Negative adverbs such as “hiç/katiyen(never)” are NPIs requiring the verbal negative marker -mA or nominal negative marker de€i l in Turkish. The fact that NPIs trigger the occurrence of the negative markers requires a structurally dependent relation between the two. Such a structural relation cannot be based on an adjunct NPI and a functional category. Spec-Head relationship, which is the fundamental structural relation within the MP, on the other hand, provides the structural relation in which an NPI triggers the occurrence of NEG.

A second position would be the [SPEC TP] position posited for frequency adverbs above. That position, however would be already occupied if NPIs can cooccur with frequency adverbs. This is indeed the case as may be observed below:

(16) Ben bazen hiç uyu-mu-yor-um.
    I Sometimes never sleep-NEG-Prog.-1stSgAgr
    ‘I sometimes never sleep’

Assuming that the frequency adverb s›k s›k occurs in [SPEC TP] position, there is no other available position in the structure where a NPI such as katiyen/hiç (‘never’) can occur, unless a position is adjoined, which might be SPEC NEGP. The structure of (16) is given in (16’) below:
In Chapter III, further evidence will be presented to show that it is indeed the case that NEG is a syntactic Head, behaving as a blocking category.

2.2.3. Modal Adverbs

Modal adverbs basically denote epistemic information, that is the degree of commitment of the speaker to truth of the proposition uttered. Adverbs denoting various degrees of probability or certainty such as belki/maybe, herhalde/presumably or kesinlikle/definitely are epistemic modal adverbs. The apparent semantic relation between modal adverbs and modal as a functional category will be investigated with respect to Spec-Head relations in this section.

2.2.3.1. Epistemic Modal Adverbs

In order to determine the position and the scope properties of adverbs that denote epistemic information with respect to probability and those that denote certainty, consider the following data. The structure in (17a), with no adverb is grammatical with modal morphemes -yAbil and -mAlI, which may give epistemic or modal readings. On the other hand, none of the epistemic readings are grammatical when there is an Adverb with epistemic sense in the structure.

Adverbs, such as belki/perhaps and herhalde/presumably, that denote epistemic information, that is probability can cooccur with the deontic modal markers -yAbil and -mAlI but not with epistemic -yAbil and -mAlI as may be observed in (17-18):

(17) a. Ahmet gel-ebil-ir/gel-meli / evde ol-abil-ir (E)/evde ol-mal› (E) may come/must come/ may be at home/ must be at home’

b. Ahmet belki gel-ebil-ir/gel-meli / *evde ol-abil-ir (E)/*evde ol-mal› (E) ‘perhaps may come/must come/may be at home/ must be at home’

(18) Ahmet herhalde gel-ebil-ir/gel-meli/*evde ol-abil-ir(E)/*evde ol-mal›(E)
presumably may come/must come/ may be at home/ must be at home

Adverbs, such as kesinlikle/definitely, mutlaka/certainly, denoting certainty with respect to epistemic information can cooccur with the deontic -mAll and -yAbil but not with the epistemic reading of these morphemes:

(19) Ahmet kesinlikle gel-ebil-ir/ gel-meli /* evde ol-abil-ir (E) /
    *evde ol-mal› (E)
    certainly may come/must come/ may be at home/ must be at home
(20) Ahmet mutlaka gel-ebil-ir/ gel-meli / *evde ol-abil-ir (E) / * evde ol-
    mal› (E)
    certainly may come/must come/ may be at home/ must be at home

Adverbs that denote certainty in a negative sense, such as katiyen/ by no means, hiç/asla/never, which we have referred to as NPIs trigger negative polarity and cooccur with both deontic and epistemic modal markers - except for the epistemic reading of -mAll. The latter is plausible since probability clashes with the certainty denoted by the NEG adverb:

(21) Ahmet katiyen gelemez / gelmemeli/ * evde olamaz(E)/*evde ol-
    mala (E)
    PropN by no means can’t come/mustn’t come (cannot be at home/must not be at home
(22) Ahmet hiç gelemez/ gelmemeli /*evde olamaz (E)/ *evde olmala (E)
(23) Ahmet asla gelemez / gelmemeli/ *olamaz(E) / *evde olmala (E)
    PropN never can’t come/mustn’t come (cannot be at home/must not be at home

As may be observed in (17)a, both deontic and epistemic readings of the modal suffixes may occur with lexical verbs. In data (17)b through (23), however, we observe that epistemic readings of the modal suffixes render the structures ungrammatical. As for the position of epistemic adverbs within the structure, one might think that a potential position could have been [SPEC NEGP] since NPIs denote certainty, an epistemic notion. This, however, cannot be the case. If an epistemic adverb that is not an NPI occurred in this position, the head of the phrase, namely NEGP would be empty; this is theoretically impossible since an empty head would not be projected at all (Chomsky,1995). Adjunction, on the other hand would not account for the cooccurrence of modal adverbs and deontic reading of the modal morpheme in the structure. Consequently, another Spec position is required in the structure to host modal adverbs. In the following section it will be argued that positing a SPEC MOD position under a MODP accounts for deontic reading of the modal morphemes in structures with modal adverbs.

2.2.3.2. Analysis of the Data

The modal morphemes in Turkish, i.e. -yAbil and -mAll are underspecified (Lyons, 1977) with respect to the nature of modality they denote. These morphemes can denote either Epistemic or Deontic Modality. -mAll tends to yield an Epistemic reading when attached to the copular verb ol-/to be and inflected in the third person singular (Aygen-Tosun, Alkaç, Çakır, 1995). The data above consists of structures with epistemic adverbs and modally marked predicates. The grammatical structures are those in which the modal morpheme has
a deontic reading. The ungrammatical structures are those in which the modal morpheme has an epistemic reading. This observation illustrates that (i) adverbs with epistemic sense do not cooccur with modal affixes denoting epistemic information, yet do cooccur with modal affixes denoting deontic information. (ii) In cases where there is no modal adverb, the modal morphemes allow both epistemic and deontic readings.

This cooccurrence implies that modal adverbs, be it epistemic or deontic, specify the modal morpheme they cooccur with as deontic. The modal adverb seems to create a domain in which only the deontic reading is possible. The epistemic reading seems to have a separate domain, which is the domain of the copular verb in most of the cases.

As will be discussed in the following section 2.1.3.3., more than one modal morpheme, either of the same or different nature may occur in the same structure. When the structure is negative, the negative head intervenes between the deontic and the epistemic morphemes. The observation that a Head intervenes between these two kinds of modals provides supportive evidence for the occurrence of a Modal head in the structure. As has been argued in 2.1., the modal cannot occur in the Specifier position of a higher category, namely the T/AP, since it has to occur on the verb path. These evidence imply the following structure, where MOD is a Head and its Specifier position is filled by an adverb denoting either epistemic or deontic Modality:

\[
\text{MODP} \\
\text{SPEC} \quad \text{MOD} \\
\text{ADVE/D} \quad \text{Deontic}
\]

The modal adverb specifies the underspecified modal head. This semantic function operates within the structural SPEC Head relation. This analysis leaves the epistemic reading outside the MODP domain. In chapter IV, a position for epistemic Heads will be posited under the syncretic category T/AP.

To conclude, adverbs with epistemic sense do not cooccur with the modals denoting epistemic information, yet do cooccur with modals denoting deontic information. Deontic Adverbs such as mecburen/obligatorily may occur as well, since they do not have any cooccurrence restrictions with deontic modal affixes. The modal adverb, be it deontic or epistemic, creates a domain in which it specifies the modal morpheme as deontic. As has been noted above (2.1.1. and 2.1.2.) in the discussion on Adverbs of Frequency and TNS/ASP, NPIs and NEG, the close semantic relation between Modal Adverb and MOD is syntactically motivated by the occurrence of Modal Adverbs at [SPEC MODP] in a Spec-Head relation within the minimal domain of MOD Phrase.

2.2.3.3. Negative and Modals

Having at least one motivation for another SPEC position, i.e. [SPEC, MODP] let us consider structures where both morphemes denoting Epistemic and Deontic Modality and NEG occur.

2.2.3.3.1. Negative, Modality and Adverbs

For the sentence given in (25a) the following structure illustrated in (25b) may be assumed:

(25) a. Gel-e-me-yebil-di-m.
   come-DM-NEG-EM-Past-1st Per Sing. Agr
   ‘I could not be able to come’
Due to the intervention of a NegP, MODP is projected twice, which needs to be accounted for. A closer look at the nature of these two modal suffixes accounts for the two MODPs, since \text{-e} denotes deontic modality whereas \text{-yebil} denotes epistemic modality.* Consequently, Modal suffixes with different (or same**) functions may be projected independently of each other.

In the structure given in (25a) we have another evidence (in addition to those claimed in 2.1.2.) for the existence of a NEGP due to the observation that NEG intervenes between two Modal Phrases with different functions, namely the EMP (Epistemic Modal Phrase) and the DMP (Deontic Modal Phrase). In (25) we have a structure where the EMP is higher than the DMP with an intervening NEGP.

This hierarchical order needs to be checked on data. Consider the data below where possible occurrences of modal markers with NEG are illustrated to observe the order of Deontic and Epistemic Modal suffixes and the Negative suffix \text{-mA}. Cases where both deontic modal suffixes occur are not taken into consideration for the sake of simplicity (the order in (25) is repeated here in (29):

\begin{enumerate}
\item[(26)] Gel-e-me-m. (D+NEG)
\item[(27)] Gel-me-yebil-ir-im. (NEG+E)
\item[(28)] Gel-me-meli-yim. (NEG+D)
\item[(29)] Gel-e-me-yebil-ir-im (D+NEG+E)
\item[(30)] Gel-e-me-meli-yim. (D+NEG+D)
\item[(31)] *Gel-ebil-e-me-m. *(E+D+NEG)
\item[(32)] *Gel-ebil-me-m. *(D+NEG) -bil + NEG (can’t cooccur due to a semantic clash)
\item[(33)] * Gel-meli-me-yebil-ir-im *(E+NEG+D)
\item[(34)] * Gel-me-meli-yeberl-ir-im *(NEG+E+D)
\end{enumerate}

The grammatical morpheme sequences in the examples above imply that the structure assumed in (25b) might be the case (the only exceptions being 28+30, for which I have no explanation), since EM seems to occur higher in the structure than the DM and NEG is higher than the DM but lower than the EM. A shift in the order yields ungrammaticality as may be observed in (33) as opposed to (28) and in (33). The ungrammaticality of (32) is most likely due to the semantic clash caused by the cooccurrence of both -yAbil and its negative -mA-.) *

It could be argued that the fact that there are two different functional categories denoting Epistemic and Deontic Modality and that NEG intervenes between these two categories imply the presence of two functional heads for Modality in Turkish, the Epistemic MOD being higher than the Deontic one. As has been argued above, SPEC DMP hosts epistemic adverbs yet there is no potential deontic adverb to host EMP. Furthermore, if two Modal Phrases i.e. EMP and DMP are projected, and Spec DMP hosts the epistemic adverb, DMP is projected as an empty head. The EMP, on the other hand, is bound to host no constituent
under its Spec. These observations imply that only one Modal Phrase needs to be projected: a phrase hosting modal adverbs under its Spec and deontic markers under its head. In that case, epistemic modal markers need to be checked under a category higher than the NEGP in the structure, since epistemic markers always follow - or are higher in the structure than- the NEG.

2.2.3.3.2. Frequency Adverbs and Modals

Another evidence in favour of [SPEC MODP] comes from the cooccurrence of adverbs with a certain nature and modal morphemes. Adverbs of frequency cooccur with the following modal morphemes:

(35) Ahmet her zaman/çoçu zaman/ sıçık sıçık / bazen/ nadiren
gel-ebil-ir (D)/ gel-ebil-ir (E) / gel-meli (D).
come-DM-Aorist come-EM-Aorist come-DM
PropN always/usually/often/sometimes/seldom can come/
may come/ must come

They cannot cooccur with the epistemic -mAlI, i.e. -mAlI attached to the copular ol-. (This restriction requires further investigation beyond the scope of this study). Frequency adverbs can cooccur with epistemic adverbs as well, as in (36) below:

(36) Ahmet belki sıçık sıçık gelebilir.

Prop N maybe often come-DM-Aorist
‘Maybe Ahmet can come often’

This observation necessitates a position other than [SPEC TP] for the modal adverb to occur.

2.2.3.3.3. Modal Adverbs and Negative Polarity Adverbs

Data on adverbs with epistemic value and negative polarity adverbs given in 3.1. is not repeated here. But the preliminary generalizations based on data are given below:

(37) i. Adverbs with epistemic sense (ADVE) cooccur with Deontic Modal markers but not with Epistemic Modal sufixes. (Deontic Adverbs do not exhibit such a cooccurrence restriction).

   ii. Adverbs with a negative sense trigger negative polarity and can cooccur with deontic modals and the epistemic -yAbil -but not with the epistemic-mAlI (the latter is plausible since probability clashes with the certainty denoted by the NEG adverb).

The generalizations in (37) imply structure (39) for the following structure in (38), where the NEGP need not project because the structure is affirmative:.

(38) Ahmet kesinlikle gel-ebil-di.

   PropN definitely come-DM-Past
   ‘Ahmet was definitely able to come’

(39)    
    | Spec            | T’         |
    | T               |
    | MODP            | MOD’      |
    | TP              |
The structure in (41) accounts for (40):

(40) Ahmet katiyen gel-e-me-z/kesinlikle gel-e-me-yebil-ir
    Prop N never come-DM-Neg-Aorist/ definitely come-DM-
    Neg-EM-Aorist
    ‘Ahmet can never come/definitely possible that he cannot come’

(41)

In this structure, epistemic modal suffix -yAbil cannot be checked under MODP. A possible checking position for MODE will be discussed in chapter IV and it will be argued that it is checked under the hybrid projection T/AP.

To conclude, the observations made on the data presented above support the claim that the Spec positions of Tense/Aspect Phrase, Modal Phrase and the Negative Phrase are independently motivated by Adverbs semantically related to the functional heads.

CHAPTER III
NEGATIVE AS A BLOCKING CATEGORY

In this chapter, another argument will be presented as additional evidence for NEGP and it will be argued that NEG is a complement of TNS.

3.1. Tense and Sentential Negation

Analysis on Tense and Sentential Negation sheds light on the nature of Tense as well as the syntactic properties of NEG in Turkish. Zanuttini (1996: 181) argues that in both Romance and English the functional category NegP is parasitic on the functional category TP, that is if NegP then TP. She distinguishes between English n’t and not, claiming that n’t functions as a head and not functions as an adverb in Spec NegP. Her arguments are based on the constraint on n’t: it cannot occur with participles, yet it occurs with imperatives, unlike Italian. Her analysis states that
NegP is a complement of TP, therefore the head n’t cannot occur unless there is a TP. English Imperatives, however, occur with the Neg Head n’t. She argues that Imperative and Present Subjunctive might be the same since they are both (-Tense, + Agreement). Pollock (1989:13) also argues that French ne is impossible with past participle due to the absence of tense.

Having argued that Tense is a functional head in Turkish, we can check whether NEG is parasitic on TP.

Consider the data in Turkish below:

(1)  a. Git!
    ‘Go’
    b. Git-me!
    go-NEG
    ‘Don’t go!’

(2)  a. Birü git-sin!
    Someone go-subj
    ’Let someone go!’
    b. Kimse git-me-sin!
    Nobody go-NEG-subj
    ‘Let nobody go’

(3)  a. Ayfle/ O çocuk git-sin!
    ProperN/that child go-subj
    ‘Let Ayfle/That child go’
    b. Ayfle/ O çocuk git-me-sin!
    PropN/ That child go-NEG-Subj 3rd
    ‘Don’t let Ayfle/that child go’

In structures (1-3) Imperatives allow negative. Moreover, they allow not only second person but also third person subjects, where the third person subject can be a quantificational subject as in (2b) or a definite subject as in (3). This observation seems to support Zanuttini’s claim that imperatives and nonpast subjunctives share common syntactic features, such as allowing a Subject NP to occur within the structure. If this holds, Tense might be assumed to be present in these structures where Neg also occurs.

Consider the examples below:

(4)  a. Ben [hicz kimse-nin a€la-d›€-›]n›
    I (nobody- Gen cry-PAST-Nominalizer-3rd AGRs-ACC
    gör-me-di-m.
    see-NEG-PAST-1stPR.Sing
    ‘I did not see anybody crying’
    b. Hicz kimsé a€la-ma-d›.
    No body cry-NEG-PAST-3rd Sing AGRØ
    ‘Nobody cried’

In (4a) Neg Polarity seems to affect the matrix verb despite the fact that it occurs within the embedded clause. In (4b) however, it directly acts upon the matrix verb. The case in (4a) is analyzed as NEG Raising in the literature, referring to cases where certain subordinate structures containing a negative polarity item (NPI), permit the scope defining negative-mA to appear on the higher predicate (Kennelly:1992). Since the higher predicate is marked with Tense, this observation may imply that Neg Polarity requires to be within the domain of Tense.
Consider the structure in (5) where NEG occurs in the embedded clause which is not marked with TNS and does not raise:

(5) [Ayfle-nin æfla-ma-d(ε→)-n] gör-dü-m.
   PropN-GEN cry-NEG-NOM-AGR-ACC see-Past-1stPer AGR
   ‘I saw that Ayfle didn’t cry.’

If NEG is parasitic on TNS, it would have to raise in (5). An alternative explanation would be that there is TNS in embedded sentential NPs in Turkish, which might be the case since the alternation in the nominalizers -DIK and -yAcAk is attributed to Past and Future, and these suffixes are claimed to denote Tense (Kural 1993, Gencan 1979).*

These observations supporting Zanuttini’s claim would lead us to the generalization that Neg is parasitic on Tenen in Turkish, too. A structure with Neg but no Tense would cast doubt on this generalization as may be observed in (6) below, which contains a modal but no overt Tense marker:

(6) <nsan (hiç) yalan söyle-me-meli.
   Person (never) lie tell-NEG-must
   ‘One must never lie’

There is no (overt) tense in (6) but Neg exists. However, first note that Ø vs Past distinction is common in tense marking in Turkish; that is, Present is expressed by a null operator. Secondly, if it is the case that Neg is parasitic on Tense, as has been argued here, NegP will be generated as the complement of TP so as to satisfy the selectional properties of its head. This will also satisfy the Mirror Principle (Baker:1985) since it reflects the order of morphemes on the Turkish Verb complex, namely Neg+Tense.**

There is also phonological evidence in favour of the claim that NEG is a head. Negative blocks stress, as well. Consider the contrastive examples below:

(7)a. Kan-tla-yá-ma-d-í-m.
   Prove DM-NEG-PAST-1st Pr.AGR
   ‘I could not prove’

b.* Kan-tla-ya-ma-dí-m.
   Prove DM-NEG-PAST-1st Pr.AGR
   ‘I could not move’

As may be observed in the ungrammaticality of (7b), stress cannot pass over NEG and occur on the Past Tense morpheme. In the corresponding Affirmative structures in (8) however, stress can occur on the Past Tense morpheme:

(8) a. Kan-tla-yabil-di-m.
   Prove-DM-PAST-1st PR Sg.
   ‘I could prove’

b.*Kan-tla-yabil-di-m.
   Prove-DM-PAST-1st PR Sg.
   ‘I could prove’

To conclude, the verbal negative marker -mA provides some evidence so as to be regarded as the head of a NegP with negative polarity adverbs under its Spec. It is parasitic on Tense. The observation that NEG blocks stress provides supportive evidence to the claim

that NEG is a syntactic head. In the following, non-verbal negative structures will be analyzed to indicate that NEG behaves as a Blocking Category.

3.2. Negative as a Blocking Category

In this section it will be claimed that Negative behaves as a blocking category in structures with non-verbal predicates. Turkish has two types of non-verbal predicate: substantives and existentials.

3.2.1. Substantives:

The negative is denoted by the lexical de€il in structures with substantive predicates. If de€il is assumed to be a head, its Spec might be occupied by NPIs. As for the discussion on Tense being a prerequisite for Neg, Present null morpheme vs the past clitic-‹di might present supporting evidence. We might assume the following structure for non-verbal Negative structures like (9a-b):

(9) a. Ben hasta de€il-im:
    I     ill        not-1st sg
    'I am not ill'

   b.        AGRP
      SPEC     AGR
        Beni     im
         TP
           SPEC     T
             Adv    -Ø/idi
            NegP
               SPEC     Neg
                  de€il
                   SP (Substantive Phrase)
                     Spec     S
                       ti     hasta

In (9b) it is the Negative element de€il which undergoes feature checking with respect to Tense and Agreement. The movement of the substantive to the Head NEG would yield the structure ungrammatical because the HMC would be violated. NEG blocks the movement of the non-verbal predicate, therefore the predicate does not undergo feature checking, whereas it would, if the structure were affirmative.* The Neg Head, however, undergoes feature checking with respect to tense denoted by the occurrence or absence of clitics and/or Agreement. The observation that the Head Neg hosts clitics, undergoes agreement and is capable of blocking the predicate, which are properties of a head, provides evidence supporting the claim that Neg is an independent syntactic head in Turkish.

3.2.2. Existential Structures

Consider the example with the negative existential predicate in (10) and its structure in (11) below:

(10) Dün   ev-de    yok-tu-m.
    Yesterday house-LOC  NEGEx-Past postclitic-1Pr Sing
‘I was not at home yesterday’

\[
\begin{array}{ll}
\text{SPEC} & \text{A’} \\
\text{Beni} & \text{A} \\
\text{um} & \\
\text{TP} & \text{T’} \\
\text{dün} & \text{T} \\
\text{-Ø/idi} & \\
\text{NegP} & \text{Neg’} \\
\text{SPEC} & \text{NEG} \\
\text{yok} & \\
\end{array}
\]

The Negative existential yok functions as the predicate of the structure, hosts a clitic and undergoes agreement, which supports the claim that NEG is an independent head in Turkish. [SPEC NEGP] may host NPIs like “hiç/never/at all/none” as in (12) below:

(12) Hiç yok.
There is none.

The fact that the existential structure in the affirmative has the predicate var seems to present an argument in favour of a maximal projection of NEGP with [+-Neg] features, which heads an independent maximal projection exists. (cf. Chomsky, 1995). This is another issue to be further investigated.

To conclude, Negative is parasitic on Tense in Turkish and it behaves as a blocking category for movement and stress, exhibiting a property of a head.

CHAPTER IV

TENSE/ASPECT AS A HYBRID CATEGORY

In this chapter, syntactic implications of multifunctional TAM morphemes in Turkish will be investigated and an analysis which will account for the multifunctional properties of TAM morphemes will be presented. It will be argued that Tense and Aspect is a syncretic or hybrid category heading a maximal projection T/AP which in turn bears another hybrid head, Aspect/Epistemic Modality, A/ME.

4.1. Multifunctional TAM morphemes in Turkish

It has long been claimed that morphemes {-Ar/-Ir, -mIfl, -DI, -Iyor, -AcAK} have more than one function: Tense, Aspect and Modality. The aorist {-Ar./Ir} serves as an Aspect and Modal marker (Yav applause, 1980, 1982; Giorgi and Pianesi, 1997), {-mIfl} as an Aspect marker and a Modal marker (Slobin and Aksu, 1982), {-DI} as a Tense, Aspect and Modal marker (Taylan, 1988, 1993, 1996, 1997), {-AcAK} as a modal marker as well as a future tense marker, {-Iyor} as an Aspect marker (Giorgi and Pianesi, 1997) as well as a Tense marker (Yav applause, 1982).

To determine the distribution of these morphemes, consider the following data, where the cooccurrence of certain morphemes is restricted (in 2):
Giorgi and Pianesi (1997) argue that cooccurrence of these morphemes with -DI, which Yavaş claims to be the only true Tense marker, implies that they are Aspect markers. Taking into consideration that deontic Modality is checked under the functional category MODP, and epistemic modal markers -MAII and -yAbil are checked under T/A in our analysis above (III), consider the possible cooccurrence of epistemic modal markers with TAM markers in (2) below:

(2) a. Ahmet evde ol-abil-ir.
   b. *Ahmet evde ol-abil-iyor.*
   c. *Ahmet evde ol-abil-mifl.
   d. *Ahmet evde ol-abil-ecek.
   e. *Ahmet evde ol-abil-di.
   f. Ahmet evde ol-mal›-yd›.

The ungrammaticality judgements on (2b-e) refer to the fact that these structures are grammatical when the modal markers denote deontic modality. The acceptable epistemic reading is possible in (2a) and (2f), where the aorist and past marker can cooccur with epistemic modal markers. The cooccurrence of epistemic modal marker -yAbil and the aorist in (2a) yields a grammatical structure**. Therefore, (2a) might be regarded as a default case for -yAbil. -mAlI, on the other hand can cooccur with the Past Tense markers -DI and -mIfl (Taylan, p.c.).

The data in (1) indicates that the TAM morphemes*** are Aspect markers, and the data in (2) indicates that they are in complementary distribution with epistemic modal morphemes. Aspect markers can cooccur with deontic modal markers as observed in (2b-e).

Another similar property of these multifunctional morphemes is that they cooccur with all frequency adverbs as observed in (3.1.1. and 3.1.3.). Frequency adverbs occur in the SPEC position of TP claimed in (3.1.). The observation that TAM markers can cooccur with frequency adverbs yet not with Epistemic Adverbs is accounted for by theory internal Spec-Head relations operating within the structure claimed in (II) above. Epistemic adverbs occur in [SPEC MODP] and they do not have a Spec-Head relation with epistemic features checked under TP.

A set of features represented by certain morphemes must project at least one node. Theoretically it is possible to assume Tense/Aspect and Epistemic Modality to be features under a single projection, let’s say Tense Phrase. The distributional properties of the morphemes observed in data (1) and (2) above, imply that this is not the case. There is another theoretically possible account for such multi-features: more than one node might be projected. With respect to the number of nodes Cinque (1994;1997) proposes a feature scattering approach. Giorgi and Pianesi (1997) introduces a Feature Scattering Principle based on this approach. The Feature Scattering Principle states that “each feature can head a projection, and the upper limit in the number of nodes is given by the number of features selected in the array”(1997:15). More than one node would require more than one SPEC. In Turkish, however, there are no syntactic motivations for more than one Spec at this level. In Turkish, it is clear that Tense and Aspect are strongly related and Aspect and Epistemic Modality seem to be in complementary distribution. For similar cases of multifunctional morphemes, Giorgi and Pianesi have proposed syncretic categories (1997). These arguments lead to a double-headed syncretic or hybrid projection T/AP. Epistemic Modality can either be feature checked under the Aspect head of this projection or it may
form another syncretic head A/ME with Aspect. The complementary distribution of Aspect and Modal markers in the data above imply the second option, that it is part of a syncretic category.* Such a hybrid projection is illustrated in (3) below. The suffixes given under the categories are merely examples, not a table giving the distribution of all TAM suffixes:

(3)     T/AP
        SPEC    T/A’
        ADVFRQ  Aspect/ModE   Tense
        -Iyor       -mAlI  -DI  vs   Ø
        -mlfl   -Abil(ir)   
        -Ar/Ir
        -AcAK
        -DI

In (3), Tense and Aspect is a syncretic category heading a maximal projection. Adverbs of frequency occur in [SPEC T/AP] and is expected to have scope over both Tense and Aspect. The structure in (4) fulfills our expectation:

(4) S›k s›k öksür-üyor-du-m.
    often    cough-Imp. Asp. -Past-1st Agr
    ‘I used to cough often’

The adverb of frequency occurs in [SPEC T/AP] and is associated with the syncretic category T/A in a Spec-Head relation within the minimal domain of T/AP. In this analysis feature checking of Aspect is parasitic on Tense and checking of Epistemic Modality is parasitic on Aspect.

CHAPTER V

EVIDENCE FROM MORPHOLOGY

There is evidence from Morphology which supports the occurrence of a TP, as well as the syntactic motivations such as hosting Adverbs under the SPEC position and behaviour as the complement of AGRP.

5.1.SPEC TP Parameter in Turkish : Morphological licensing of SPEC TP

Another evidence supporting the occurrence of [SPEC TP] comes from morphology. Bobaljik (1996:230) argues that a language licenses [SPEC TP] in addition to [SPEC AGR] at S-Structure iff it has independent tense and agreement morphology. To account for the occurrence of a language like Faroese which does not license Spec TP, yet which has number agreement in the past tense, he proposes that “in any given language, if tense morphology blocks agreement morphology, then that language does not license Spec TP” (1996:230). It follows that if tense morphology doesn’t block agreement morphology, then that language may license [SPEC TP].

Turkish is a language with an independent agreement and tense morphology where the latter does not block agreement morphology as may be observed in the examples (1) and (2) below:
(1) Gel-iyor-um.
   Come-Pr.Prog-1st Per Agr
   ‘I am coming’

(2) Gel-meli-yim.
   Come-must-1st Per Agr
   ‘I must come’

In (1) Tense and Agreement morphemes cooccur and tense does not block agreement. In (2) there is no overt tense morpheme, yet agreement occurs independently.
This evidence in favour of [SPEC T/AP] supports the claim for an independent T/AP.
Another apparent evidence is provided by the claim that AGR is the head of a sentence in Turkish (George and Kornfilt 1981). When Agreement is taken as an independent head, the primary inflectional feature left under I is Tense. Pollock (1989) argues that IP should actually be considered a TP.

5.2. Tense as a Referential Expression

Another evidence in favor of TP is based on the anchoring conditions claimed for Tense. Enç (1987:633) argues that tenses are referential expressions denoting intervals. She argues that Tense can have antecedents either in discourse or sentence-internal antecedents. Since notions of past and present are relational notions established in the structure of sentences, some expression must function as the specifier of Tense. She locates specifier of tense in Comp in her analysis, which predates Pollock (1989). This provides additional argument in favour of [Spec TP] where a sentence-internal antecedent for Tense i.e. an adverb, can anchor.
Enç further argues that each tense must be anchored and that all temporal expressions, i.e. tenses and adverbs, carry pairs of indices denoting intervals. This anchoring requires that Tense be bound within its governing category. Since under the Minimalist Program, government is not taken into consideration, and only local Spec-Head and Head-Complement relations are significant, we could argue that anchoring conditions are fulfilled if temporal adverbs are located under Spec TP, as has been claimed in Aygen-Tosun (1998) and in (2.1.1.) above.
Tense in Turkish is a referential expression which denotes intervals and it is in a referential relation with all expressions denoting time in the structure, such as temporal nouns and adverbs. Tense is represented with double indices which anchor to the time of utterance represented by (0,0) at the Specifier of Tense. When there is an adverb denoting time in the structure, the adverb denotes the interval between the time of utterance and the time the adverb denotes.
Consider the structure below, where the indices represent intervals:

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(3)                 AGRP
   SPEC               AGR’
   Beni               AGR
   T/AP               -im
   SPEC               TA’
   Yarım(0,a)          TA
   T/Acek(0,a)         VP
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The claim that Tense is a referential expression, that it must anchor and that it requires a specifier to anchor finds a natural explanation in feature checking process within the Minimalist Program. Further arguments in favour of this analysis will be given in Chapter VI.

CHAPTER VI

FEATURE CHECKING IN TURKISH

In this chapter, feature checking, which lies at the core of the Minimalist Program will be reviewed and feature checking in Turkish will be discussed on the structure claimed for Turkish in this thesis, based on the syntactic motivations discussed in Chapters II, III and IV.

6.1. Features in the MP

Morphological features are at the core of the Minimalist Program. These are features associated with tense, case, and agreement. “Items from lexical categories such as V, N, and Adj are fully inflected in the lexicon” (Marantz in 1995:363). Tense and agreement features are simultaneously added to a Verb in the lexicon, where they need to be ordered.* Therefore, what triggers movement is not the insertion of affixes but checking off of features. In the MP Move-a (that is a category) is replaced by Move-F (F for feature). These features play a role in the computational system of language but they play no role at LF and PF interfaces; therefore, they must be eliminated prior to PF and LF, otherwise the derivation crashes.

An element of language variation is the strength of features. A feature may or may not be strong and it may force overt movement that violates Procrastinate. Strong features are attributed to functional categories within the MP.

(1) If F is strong, then F is a feature of a nonsubstantive category and F is checked by a categorial feature (Chomsky, 1995:232).

It follows that nouns and verbs do not have strong features, but functional categories do. Consequently, overt movement of β to a is possible only “when a is nonsubstantive and a categorial feature β is involved in the operation.” (Chomsky, 1995:232). In the MP, functional nodes such as AGR and TNS, never contain items from the lexicon and they are not positions where inflectional affixes are attached. Inflectional affixes are attached to items of the lexical categories in the lexicon. The functional nodes serve to carry the morphological features necessary to check off features on Ns and Vs.

A strong feature has two properties. “First, it triggers an overt movement; second, it induces cyclicity”, that is a strong feature cannot be passed over (Chomsky, 1995:233).
6.2. Feature checking

Feature checking, "a core property of human language computation" is defined as “the operation that drives movement under the Last Resort condition” (Chomsky, 1995:228). In the MP one element licenses the other by checking off the latter’s features. The basic relation is that of Agreement, that is the relation between a head and its specifier, the licensing or “checking” domain of a Head includes the following positions in (2):

(i) the specifier of the head,
(ii) a head position adjoined to the head,
(iii) a position adjoined to the maximal projection of a head,
(iv) a position adjoined to the specifier of a head.

These positions (i-iv) are in the “checking domain” (Chomsky, 1995:178-179).

The movement of linguistic objects is due to the necessity of satisfying properties of the moved object itself. Therefore movement is admitted if properties of the moved constituent would not be otherwise satisfied in the derivation. Such properties are encoded by features and the satisfaction process is realised by a checking process.

Feature checking is a pairing process: it pairs the relevant feature(s) of the moved constituent with that/those of the suitable functional category, which is the target of the movement, and it accepts or rejects it depending on whether the features match or not.

In the following section, how feature checking applies to the structure claimed for Turkish in Chapters II, II, and IV will be discussed.

6.3. The SPLIT INFL Hypothesis and Feature Checking in Turkish

Based on the arguments in chapters II, II, IV and V, it has been claimed that the SPLIT INFL hypothesis has different motivations in Turkish than those stated for English and French by Pollock (1989) and Ouhalla (1991).

Frequency Adverbs, NPIs and Modal Adverbs are argued to be base generated in the Spec positions of the Functional Heads Tense/Aspect, Negative and Modal in Turkish. The basic structural relation taken into consideration in the structure claimed is the Spec-Head Agreement.

The structure claimed for Turkish in this thesis is illustrated below in (3). This hypothetical structure illustrates where the functional categories discussed in this thesis may occur, if they need to*:

(3) AGRP
    SPEC AGR’
    SBj NPi AGR
    T/AP T/A’
    SPEC T/AP
    ADVFRQ T/AP
    SPEC NEG’
    NEGP NEG
    SPEC MODP MOD
    NPI MOD’
    MODP MOD
    SPEC ADVE ADVE
    VP V’
    SPEC
6.3.1. Feature Checking of the Subject NP

The structure in (3) consists of hierarchical checking domains. The Subject is assumed to be base-generated at [SPEC VP] position. It moves up to [SPEC AGR] for checking its nominal features and at the final stage of checking off, when the V complex also ends up at AGR position, the Subject Verb Agreement is guaranteed by the Spec-Head relation of the Subject at Spec and the V-complex at the Head AGR. Although the Spec positions of the functional categories MOD, NEG and T/AP seem to intervene between [SPEC AGRP] which is the target of the Subject that is base-generated in the [SPEC VP] position, [SPEC AGR] is within the checking domain of [SPEC VP] because [SPEC AGR] is the first possible landing site for the Subject NP. The intervening Spec positions are generated for the Adverbs and they do not bear the features of Agreement. The strong features of AGR attracts the Subject NP to [SPEC AGR], whereas the intervening SPECs have no such features to trigger the movement of the Subject. Hence [SPEC AGR] is within the minimal checking domain of Spec VP. The trace left by the Subject NP at [SPEC VP] forms a chain within this checking domain with the Subject that has moved to the [SPEC AGR] position.

6.3.2. Feature Checking of the V-Complex:

The V-complex, which is fully inflected in the lexicon, undergoes feature checking on the Head path, opposite to that of the Subject. Suppose the structure under feature checking is the one illustrated in (4) below:

(4) Gid-e-m-iyor-du-m
    Go-DMod-NEG-ASP-TNS-AGR
    ‘I was not able to go’

The checking off of features is a process that pairs the features on the fully inflected V-complex and the features on the functional categories. In this pairing process, the first landing site of the V-complex “Gidemiyordum” is the Head MOD, where it checks off its Modal feature. Due to cyclicity triggered by strong AGR features, it keeps on moving to the higher functional heads, which are all within its checking domain in steps. Next, it moves to NEG, where it checks off its Negative feature. Thirdly, it moves to the syncretic category T/AP where it checks off its ASP and TNS features. At this level, double checking takes place. With respect to the nature of this checking, the order of syncretic heads is significant. There are structures in which no Aspect or its hybrid head Epistemic Modality occurs, as in (5) below:

(5) Git-ti-m.
    Go-TNS-AGR
    ‘I went’

In such structures the T/AP is projected as TP only because a projection which the structure does not require for feature checking is not projected at all (Chomsky 1995: 35.). In structures like (4), however, when both heads are projected, the fact that ASP precedes TNS can be accounted by the strength of ASP features. Because ASP feature is stronger
than that of TNS, it attracts the V-complex first; hence the feature checking of double headed categories.

With respect to the syncretic category ASP/MODE, there is no difference in strength between these two categories, therefore one doesn’t occur where the other does. Going back to the feature checking of the structure in (4), the V-Complex has to move to AGR for final feature checking of Subject-Verb Agreement. Since all features of the V-complex have been paired and accepted by the functional categories, the derivation is accepted.

Each step of this cyclic feature checking applies within minimal checking domains and movement of the V-complex satisfies the three economy principles of the MP. It moves due to its need to satisfy its own morphological features (Greed); it moves to the first Head that bears the features it needs to satisfy, within its minimal checking domain (Shortest Move).

Consider (6) where the derivation would fail while checking off its features:

(6) *Yar›n git-ti-m.
    Tomorrow go-Past-1stPr.Sg.
    ‘I went tomorrow’

The verb complex bears the Past Tense feature: let’s call it a. The functional head bears all tense features unless there is an adverb that restricts the possible tenses that can cooccur with it. In this example, the adverb denotes futurity, therefore, the head Tense bears only the non-past feature, let’s say b. When the verb complex undergoes feature checking, its tense feature a cannot pair with the feature b on the head Tense, and the derivation clashes. A verb complex such as (6) below, however, would fail in derivation because it does not bear a tense feature to pair with any feature on Tense:

(6) *Git-im.
    Go-1stPr.Sg.

To conclude, for successful feature checking, the features on the fully inflected lexical unit should match and pair with the corresponding features on the functional heads. As may be observed in the structures illustrated in this section, the structure claimed for Turkish in this thesis, allows feature checking within minimal domains cyclically without violating the principles of the Minimalist Program.

CHAPTER VII
CONCLUSION
This study investigates the SPLIT INFL hypothesis (Pollock 1989) in Turkish. It has been claimed that different syntactic motivations from those assumed for English and French require splitting the Inflection node in Turkish.
It has been argued that AGR, TNS/ASP, MOD and NEG exhibit head properties in Turkish and head maximal projections of their own. The basic syntactic motivation for the occurrence of SPEC positions of T/AP, NEGP and MODP is that adverbs that are semantically related to corresponding functional categories hold a structural Spec-Head relation with the functional categories, which is a fundamental relation in the MP. Consequently, T/AP hosts adverbs of frequency, NEGP hosts NPIs and MODP hosts epistemic adverbs at their SPEC positions respectively.

With respect to the occurrence of Adverbs of Frequency at the SPEC T/AP position, further investigation is required since it might be focal stress which exhibits scope properties rather than adverbs.
It has been argued that modal adverbs specify the underspecified (Lyons 1977) modal morphemes creating a domain for deontic modal readings. The observation that NEG intervenes between modal morphemes and that the epistemic morpheme tends to occur higher than the deontic morpheme provides further evidence in favour of a MODP. Negative Polarity triggered by negative adverbs provides strong evidence in favour of a NEGP. NPIs occur under the specifier position of NEGP. The head NEG serves as a blocking category in that it prevents the movement of predicates in substantive structures where NEG is a lexical head. In verbal structures, evidence from phonology indicate that NEG blocks stress as well.
T/AP is claimed to be a syncretic double-headed category, where Aspect and Epistemic Modality occur in complementary distribution, hence parasitic to each other in a hybrid projection. This syncretic nature of T/AP accounts for the multifunctional property of “TAM” markers, in accordance with the Feature Scattering Principle (Giorgi & Pianesi, 1997). Study on wider data is necessary to see whether a hybrid T/AP projection accounts for various functions TAM markers denote.
Evidence from morphology indicates that the [SPEC TP] Parameter of Bobbaljik (1996) supports the occurrence of [SPEC T/AP] in Turkish. The claim that Tense is a referential expression and has to anchor (Enç 1987) supports the projection of [SPEC T/AP] where the Specifier of Tense can be located.
Feature checking, which lies at the core of the Minimalist Program and which replaces Move-a with Move-F, operates in the structure claimed in this study, without violating principles of UG and the economy principles of the MP.
In conclusion, this study claims that despite the difference in syntactic motivations, the structure of Turkish provides strong supportive evidence for the SPLIT INFL hypothesis. The functional categories under discussion behave as syntactic heads in Turkish. The structure claimed within the MP for Turkish accounts for the position where adverbs semantically related to functional categories are generated, and the multifunctional nature of TAM markers. The observations in this study require further study on the scope properties of adverbs vs focal stress, the nature of the Aorist which occurs attached to the modal morpheme -yAbil as a default case, and the curious nature of the syncretic Aspect and Epistemic Modality which occur in complementary distribution.
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