



CATEGORIZATION AND SYNTACTICAL ANALYSIS OF NOMINALIZERS IN TURKISH: A MINIMALIST APPROACH*

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ABSTRACT

This study aims to approach to morphological and syntactical analysis of *gerunds* and *participles* in Turkish through minimalist solutions proposed by the Minimalist Program. Syntactical analyses of these non-finite verb forms having nominal features have always been a highly controversial subject in that they are verb phrases (VP) headed by verbs derived by derivational morphology in the lexicon, noun phrase (NP), determiner phrase (DP), infinite tense phrases (TP), inflectional phrases (INFLP/IP), or nominalizer phrases (NomP) etc. Moreover, the same affixal structures have different functions under different categories in the same language, which also causes contradictory ideas on their classification. In this scope, functional affixal heads having nominal features allowing verbs to locate in specifier, complement, adjunct or modifier positions in the syntax are analyzed, questioned and categorized in terms of minimalist suggestions. Initially, morphological and syntactical properties of Turkish inflectional and derivational affixes are compared and contrasted in order to make discrimination between nominalizer heads and derivational morphology. Next, based on the morphological properties denoting grammatical features such as tense, EPP and agreement, affixes having nominal features are categorized into nominalizers and infinite T constituents, finally making clear distinction between nominalizers, derivational morphology and infinite tense constituents. Finally, rather than regarding these structures as VPs headed by a lexical verb, or NPs derived in the lexicon, this study categorizes nominalizers into Nom heads and suggests a NomP analysis for the phrasal derivations headed by nominalizer heads. The study contributes to the categorization of inflectional morphology described in traditional descriptive and prescriptive Turkish grammar through UG terms. Considering contradictory ideas on classification of nominalizers in this field, this study suggests important solutions not only for the categorization of affixes having nominal features but also for the syntactical analysis of these structures in Turkish morphology.

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STRUCTURED ABSTRACT

In this study which aims to analyze Turkish inflectional morphology in order to identify nominalizers and their syntactical representation in terms of the MP and question, explain and re-categorize nominal affixes, all of which are categorized as nominalizers in traditional Turkish grammar through UG terms, we analyzed morphological and semantic properties of Turkish inflectional affixes having nominal features using substitution technique and then categorized them into T or Nom heads in order to make a clear distinction between nominalizers, derivational morphology and inflectional T. In this context, we initially compared and contrasted derivational noun suffixes (e.g. *-Im*, *-Aç*, *-gIç*, *-cE*) and inflectional nominalizers (e.g. TR: *-mA*) through substitution. From these comparisons, it was found out that while verbs suffixed by inflectional nominalizers may have complements, verbs suffixed by derivational noun suffixes cannot have complements. It was also found out that while derived nouns cannot be modified by adverbs but by adjectives, nominalised verbs cannot be modified by adjectives but by adverbs, by which we can easily distinguish derivational noun affixes from inflectional nominalizer heads. These properties demonstrated that verbs inflected by the nominalizer *-mA* functions as complements or subject specifiers (i.e. internal or external arguments) in the syntax. On the other hand, the verbs nominalised by *-(y)An*, *-AcAk* and *-mIş* modify nouns, while verbs inflected by the nominalizers *-ArAk* and *-IncA* are adjoined to verbs. In addition, nominalizers were also distinguished from inflectional infinite (INF) tense (T) constituents projecting TPs, requiring overt or null (PRO) subject specifier and carrying tense (i.e. *priori* or *irrealis* future) features. Accordingly, the infinitival *-mA* could be distinguished from nominalizers in that it cannot be assigned cases and carries an ‘irrealis tense’ feature with a null PRO subject, projecting ‘a complement clause’ known as a ‘control clause’, which gave us enough evidence to categorize them as infinite T constituents. Furthermore, verbs headed by *-dIk* and *-mA* were found demonstrating similar properties in terms of their [EPP] and “factive” (e.g. *-dIk*) or “irrealis” (e.g. *-mA* and *-AcAk*) tense features. It was also pointed out that infinite T heads are in agreement with their external arguments assigned GEN case (e.g. *Ali’nin yaptığı/Ali-GEN have-INF-3SgP*). It was also found that aspectual heads such as perfect (PER), progressive (PROG) or habitual (HAB) are headed by finite or infinite T heads but by nominalizers, which I referred as another criterion to discriminate between nominalizers and infinite T constituents. Through the comparative and contrastive analyses of the properties of nominal affixes in Turkish, it was concluded that Turkish operates a functional affixal c-selectional (selecting lexical category of verbs) category of nominalizers (i.e. *-mA*, *-(y)An*, *-ArAk* and *-IncA*) having nominal features but [EPP]. Considering the data we obtained from these categorizations, I concluded that a functional category of nominalizers having limited number of constituents is needed to be represented in the syntax. This functional category makes verbs function as nouns, adjectives or adverbs externally but allows them to have complements or adjuncts internally. Therefore, rather than regarding these structures as VPs headed by a lexical verb, or NPs derived in the lexicon, it was

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found plausible to suggest a “nominalizer phrase” (NomP) headed by a functional affixal head called “nominalizer” (Nom) selecting verbs. Accordingly, the category of Nom which is headed by an affixal nominalizer head was assumed to carry a STRONG V feature, triggering the raising of the complement to attach, checking the matching features and forming the NomP *V+ing*. Different from an infinite TP, a NomP may not project an external argument, or a specifier subject, to form an extended NomP. Therefore, in this context, the nominalizer heads and their syntactical positions as specifiers, complements, modifiers and adjuncts were analysed on tree diagrams through suggestions by the MP. NomPs serving as internal arguments such as a verb or postposition complement and external arguments, or subject specifiers, were analyzed under a D head, forming DPs, which may also explain case assignment in nominalised structures. As for the NomPs having an adjectival function, on the other hand, verbs headed by the nominalizer *-(y)An*, perfective and prospective aspectual heads *-mİş* and *-AcAk* were also analyzed as modifier NomPs extending the projection to form an extended NP which is finally headed by a D, forming a DP. As for the adjunct NomPs, nominalizers such as *-ArAk* and *-IncA* were analyzed as NomPs which are adjoined to verbs as adjuncts, projecting an external argument but carrying agreement features, finally forming extended VPs. However, it was also found that adverbial NomP headed by *-IncA* does not carry agreement (i.e. [Per] and [Num]) features although it projects an external argument as a subject specifier as in the case of complement NomPs since it is not headed by a higher D.

Key Words: nominalizer, Nom, NomP, Minimalist Program, Turkish

TÜRKÇEDEKİ ADLAŞTIRICILARIN SINIFLANDIRILMASI VE SÖZDİZİMSEL ÇÖZÜMLEMESİ: MİNİMALİST BİR YAKLAŞIM

ÖZET

Bu çalışmanın amacı Türkçedeki Ad fiil, Sıfat fiil ve Zarf fiillerin biçimbilimsel ve sözdizimsel çözümlemesine Minimalist Program çerçevesinde çözüm önerileri getirmektir. Bu adıl özelliklere sahip olan zaman-çekimsiz fiil biçimlerinin sözdizimsel çözümlemeleri her zaman oldukça tartışmalı olmuştur. Bunların ad öbeği (AÖ), belirleyici öbeği (BÖ), çekimsiz zaman öbeği (ZAMÖ), çekim öbeği (ÇEKÖ), sözlükçede türetme ekleriyle türetilen eylemlerin öbek başı olduğu eylem öbekleri (EÖ) veya adlaştııcı öbeği (ADÖ) v.b. olduklarını iddia eden farklı çalışmalar bulunmaktadır. Ayrıca, aynı biçimbirimlerin aynı dilde farklı kategoriler altında farklı işlevlerde bulunması da bu adıl özellik taşıyan biçimbirimsel öbek kurucuların sınıflandırılmasında tartışmalı görüşlerin ortaya atılmasına sebep olmuştur. Bu bağlamda, tümce içerisinde fiillerin özne, tümleç, eklenti (zarf) veya niteleyici (sıfat) olarak kullanılmasını sağlayan, adıl özelliklere sahip öbekler kuran ve işlevsel bir kategori oluşturan biçimbirimler Minimalist Program çerçevesinde incelenmiş, sorgulanmış ve sınıflandırılmıştır. Öncelikle, Türkçedeki çekim ve türetme eklerinin biçimbilimsel ve sözdizimsel özellikleri adıl özellik taşıyan işlevsel bir kategoriye oluşturan biçimbirimlerle türetme

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ekleri arasında bir ayırım yapmak için karşılaştırılmış ve karşılaştırılmıştır. Daha sonra, zaman, Genişletilmiş Yansıtmalı İlkesi (GYİ) ve uyum gibi dilbilgisel özellikleri belirten biçimbilimsel özellikler temel alınarak, adcıl özelliklere sahip tüm biçimbirimler ‘adlaştırmacılar’, ‘türetme ekleri’ ve ‘çekimsiz zaman öbeği’ kurucuları arasındaki ayırımı açıkça ortaya koyacak şekilde ‘adlaştırmacılar’ ve ‘çekimsiz zaman öbeği’ kurucuları olarak kategorize edilmiştir. Son olarak, bu öbekleri sözlüksel bir fiilin başını çektiği bir EÖ veya sözlükçede türetilen bir AÖ olarak kabul etmek yerine, bu çalışma adlaştırmacıları adlaştırmacı (AD) olarak kategorize etmekte ve bu adlaştırmacıların baş konumunda olduğu öbek yapıları için ADÖ çözümlemesi önermektedir. Bu çalışma ayrıca geleneksel betimleyici ve kuralcı Türkçe dilbilgisinde tanımlanan çekimsel biçimbirimlerin ED kavramlarıyla sınıflandırılmasına katkı sağlamaktadır. Sonuç olarak, bu alanda adlaştırmacıların sınıflandırılmasıyla ilgili olarak öne sürülen tartışmalı görüşler dikkate alındığında, bu çalışma sadece Türkçe biçimbilgisi içerisinde yer alan bu yapıların sözdizimsel çözümlemesi için değil, ayrıca adcıl özellik taşıyan biçimbirimlerin sınıflandırılması için de önemli öneriler sunmaktadır.

Anahtar Kelimeler: ad fiiller, adlaştırmacı öbeği, Minimalist Program, Türkçe

1. Introduction

This study aims to approach to the analysis of *gerunds* and *participles* in Turkish through minimalist solutions proposed by the Minimalist Program (MP). In linguistic terms, “the uses of verbs having nominal features (verbal nouns) are called *gerunds*” (Trask, 1993:118) and “any of various non-finite verb forms which can act as the heads of verb phrases functioning as adjectival or adverbial modifiers are described as *participles*” (Trask, 1993:200). In this scope, functional heads having nominal features allowing verbs to locate in “specifier, complement, adjunct or modifier positions in the syntax” are analyzed, questioned and categorized in terms of minimalist suggestions in syntactical representation of languages (Çiçekler, 2015:336). Although these functional heads can be observed to have distinct affixal or inflectional morphological properties and be in different numbers across languages (e.g. in contrast to limited affixal *-ing* and *-ed*, or inflectional past participle *-n* forms of verbs in English, affixal *-mA*, *-mAk*, *-dIk*, *-(y)An* and *-ArAk*, *-AcAk* etc. in Turkish)¹, they may meet similar or almost the same functions in both languages. However, the same affixal structures may also have different functions under different categories in the same language, which has caused contradictory ideas on their classification. For example, while Göksel and Celia (2005:84) describe the affixal heads *-mA*, *-mAk*, *-dIk* and *-AcAk* as the “infinite subordinating suffixes”, Delice (2012:32) and Çiçekler (2015:336) describe them as “inner clause predicates” or “nominalised predicates” in Turkish morphology, the same description was used not only for the affixes *-ArAk* and *-AcAk* (Abdiu, 2012:4) but also for *-mA*, *-mAk* and *-Iş* (Tosun and Koç, 2014:985). Generally, in Kural (1994) and Slodowicz (2007), while verbs suffixed by *-mA* and *-mAk* are described as infinitives, others suffixed by *-dIk* and *-AcAk* are described as gerunds (or nominalised verbs). On the other hand, Csátó (2009) describes *-dIk* and *-mA* as nominalizers, contradictory to the suggestions cited above. Furthermore, considering the tense features (i.e.

¹ Affixes requiring vowel harmony will be demonstrated with capital vowel during our study, which means they undergo the vowel harmony (i.e. *-mAk*).

priori, posterior or irrealis), Ergin (2013) and Banguoğlu (2011) categorize the affixal heads (all of which they call nominalizers) such as *-An*, *-mİş*, *-dİk* and *-AcAk* as participles, while they categorize *-mA*, *-mAk* and *-İş* as gerunds since they do not have tense features described for the others. *-mA*, *-mAk* and *-İş* are also categorized as “infinite subordinating affixes” by Tosun and Koç (2014:985). Moreover, in Uzun (2000), these affixal heads functioning as gerunds or participles *-mA*, *-İş*, *dİk* and *-AcAk* are also categorized as nominalizers. In addition, syntactical analyses of these non-finite verb forms having nominal features have always been a highly controversial subject also in that they are verb phrases (VP) headed by verbs derived by derivational morphology in the lexicon, noun phrase (NP), determiner phrase (DP), infinite tense phrases (TP), inflectional phrases (INFLP/IP), or nominalizer phrases (NomP) etc. For example, Abney (1987) citing from Jackendoff (1977) and Baker (1985) states that “Jackendoff (1977) describes gerunds as verbs headed by a phonologically dependent morpheme *-ing* behaving like an independent morpheme and syntactically appearing as a head N which is then lowered to V” (Abney, 1987:133). “According to Baker (1985), the morpheme *-ing* is categorized as an inflectional head in an inflectional phrase (IP) and proposed as the head of gerunds” (Abney, 1987:139), which is also applied for Turkish nominalizers by Uzun (2000). Abney (1987) himself, on the other hand, suggests a DP structure for gerunds. He describes the *-ing* as a ‘nominalising affix’ which takes a verbal projection and converts it into a nominal category, as a result of which DP inherits the nominal features from the affix,” which is also developed into a NomP projecting a DP by Şeker (2015). In addition, when tense features (i.e. priori, posterior or irrealis) are considered, it may also be suggested that the affixal heads *-mA*, *-mAk*, *-dİk* and *-AcAk* are infinite T constituents which may introduce “an irrealis clause (i.e. a clause denoting a hypothetical event which has not yet happened)” (Radford, 2004:53) or “a situation prior to the time of utterance which is usually factive” (Slodowicz, 2007:129). Affixal heads such as *-mA*, *-dİk* and *-AcAk* are regarded as infinite T constituents having nominal features which are finally headed by a null affixal C having [EPP],[GEN-Case], [Inf-TNS] and agreement (i.e. [Per] and [Num] features), which is also analyzed as a DP by Kennelly (1996), suggesting that these structures in Turkish are not headed by infinite complementiser but determiners assigning case features. In those matrix clauses derived by infinite CPs, while finite T (i.e. present or past) projects a main clause, satisfying the finite TNS requirement, the infinite T projects into embedding complement, relative or adjunct CP structures. The affixal head constituent *-mAk*, in addition, is regarded as an infinite T particle projecting a control clause as described for English ‘infinitival to’ by Radford (2004). The nominalizer suffix *-mA* can also function as an infinite T constituent, deriving an infinite TP under a higher CP. In this case, the infinite T *-mA* denotes a modal event which has not yet happened. Therefore, nominal affixal heads projecting infinite TPs and higher infinite complementiser phrases and infinite T projecting control clauses described above should be excluded from what are categorized as nominalizers. On the other hand, what make up the scope of this study are the affixal *-mA*, *-(y)An*, *-IncA* and *-ArAk* which are analyzed as the nominalizer (Nom) head (i.e. gerund or participle) projecting into a NomP since they do not have [TNS] (i.e. priori, posterior or irrealis) and [EPP] features (i.e. they may not project an external argument, or a subject specifier, thus not carrying person and number, or agreement features) (Avcı, 2015:969).

In this study, we aim to analyze Turkish inflectional morphology in order to identify nominalizers and their syntactical representation in terms of the MP. Accordingly, instead of earlier UG principles such as case assignment, movement, traces, X-bar, government and binding theories, syntactical structures in this study are analyzed through minimalist suggestions such as case checking, attraction of features, copy, merge and delete operations, projection levels, feature interpretability, feature matching, feature checking. In addition, categories such as AGR_SP, INFL and IP levels in ‘GB Theory’ are replaced by TP since they are either abandoned or revised in favour of minimalist concerns such as ‘simplicity’, ‘economy’ and ‘least effort’. Through the MP

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minimizing differences between languages in representation of languages, we aim to question, explain and re-categorize inflectional morphology having nominal features described in traditional descriptive or prescriptive Turkish grammar through the UG terms.

The paper is organised as follows: section 1 is the introduction part of the study where we lay out the problem and main lines of the study. Section 2 questions the morphological and semantic properties of Turkish inflectional affixes having nominal features and then categorizes them into T or Nom heads, which aims to limit the target structures to be analyzed in the study, referring to the ideas in traditional prescriptive and descriptive grammar using substitution technique. Section 3 suggests a NomP analysis for the nominalizer heads based on the categorizations in section 2. In this section, the nominalizer heads and their syntactical positions as specifiers, complements, modifiers and adjuncts are analysed on tree diagrams through suggestions by the MP. Section 4 is the conclusion.

2. Categorizing Inflectional Morphology having Nominal Features

In this section of the study, inflectional affixes having nominal features are categorized as to their semantic and morphological properties in Turkish, through examples enriched by substitution. Initially, it is necessary to make discrimination between derivational noun suffixes (e.g. TR: *-Im*, *-Aç*, *-gIç*, *-cE* and ENG: *-tion*, *-ment* etc.) and inflectional nominalizers (e.g. TR: *-mA* and ENG: *-ing*). For this purpose, let's analyze the following examples shown in (1):

- (1) a. İngilizce öğren-me, teklifi düşün-me
b. *İngilizce öğren-im, *teklifi düşün-ce
c. İngilizce öğren-im-i, teklif düşün-ce-si

From the illustrations, we can see that while verbs suffixed by *-mA* may have complements in (1a), verbs suffixed by other nominal affixes such as *-Im* and *-cE* cannot have complements as shown in (1b). However, we can observe that words derived by these affixes are assigned the “agreement marker *-(s)P*” since the preceding word functions as a modifier rather than a complement, as shown in (1c). Therefore, we understand that verbal nouns with the suffix *-mA* are nouns still having verbal properties, by which we can easily distinguish derivational noun affixes (e.g. *-İş*, *-Im*, *-Aç*, *-gIç*, *-cE* etc.) from inflectional nominalizer heads. This conclusion can be justified by the corresponding English examples in (2) below (Şeker, 2015:241):

- (2) a. develop-*ing* a strategy, admit-(*t*)*ing* a proposal
b. *develop-*ment* a strategy, *admit-(*t*)*ance* a proposal
c. develop-*ment* of a strategy, admit-(*t*)*ance* of a proposal

From the illustrations, we can see that while verbs suffixed by *-ing* may have complements in (2a), verbs suffixed by other nominal affixes such as *-ance* and *-ment* etc, cannot have complements as shown in (2b). However, they have “of-phrase” structures, revealing that the following word functions as a modifier DP rather than a complement (Şeker, 2015:241), as shown in (2c). These examples may also be enriched by adverb and adjective substitutions:

- (3) a. develop-*ing* slow-ly, slow develop-*ment*, sessiz-ce düşün-me (think-*ing* silent-ly), sessiz düşün-ce (silent thought)
b. *slow develop-*ing*, *slow-ly develop-*ment*, *sessiz-ce düşün-ce (slow-ly thought)

Accordingly, while derived nouns cannot be modified by adverbs but by adjectives, nominalised verbs cannot be modified by adjectives but by adverbs.

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Verbs inflected by nominalizers (NOM) range as to their positions and functions in the syntax:²

- (4) a. Yabancı dil öğren-me sabır ister.
Foreign language learn-NOM patience require-PRE/1SgP
Learning a foreign language requires patience
- b. ders çalış-ma-yı sev, yüz-me-yi bil
study-NOM-ACC like, swim-NOM-ACC know
like studying, know swimming
- c. Büyü-me-si-ni takip ediyorum.
grow-NOM-3SgP-ACC follow-PROG-PRE/1SgP
I follow his/her growing up
- d. oku-ma ile ilgili, öğren-me-de
read-NOM to related, learn-NOM-LOC
related to reading, on learning
- e. koş-an adam, oyna-(y)an çocuklar
run-NOM man, play-NOM children
the man running, the children playing
- f. Bizi ziyaret ed-ecek insanlar, boyan-mış oda
us visit-NOM people, paint-NOM room
The people to visit us, the room painted
- g. karanlık çök-ünce geldi, ağla-(y)arak konuştu
darkness become-NOM came-3SgP, cry-NOM spoke-3SgP
he came when it got dark, s/he spoke crying

In (4a), the nominalised verb phrase *yabancı dil öğren-me* (learn-ing a foreign language) is located in the specifier position of the TP *sabır ister* (requires patience). In (4b), the nominalised verbs *çalış-ma* (study-ing) and *yüz-me* (swim-(m)ing) are assigned ACC case by the verbs *sev* (like) and *bil* (know). In (4c), the nominalised verb *büyü-me* (grow-ing) undergoes an agreement with its 3SgP possessive PRO-drop specifier *büyü-me-si* (grow-ing-3SgP). The modified nominalizer phrase is then assigned ACC case by the verb *takip et* (follow). In addition, in (4d), nominalizer phrases *oku-ma* (read-ing) and *öğren-me* (learn-ing) are headed by “an instrumental adposition” *ile* (with) and “a locative (LOC) adpositional case -*da* (on)” (Şeker, 2015), all of which show us that verbs inflected by the nominalizer -*ma* functions as complements or subject specifiers (i.e. internal or external arguments) in the syntax. On the other hand, in (4e) and (4f), the verbs nominalised by -(y)*An*, -*AcAk* and -*mİş* modify nouns, while, in (4g), verbs inflected by the nominalizer -*ArAk* and -*IncA* are adjoined to verbs. Nominalizers should also be distinguished from inflectional infinite (INF) tense (T) constituents projecting TPs, requiring overt or null (PRO) subject specifier and carrying tense (i.e. priori or irrealis future) features, as shown in (5) below:

- (5) a. Çık-ma-ya karar verdi.
leave-NOM-DAT decide-PAST-3SgP

² Note that the suffixes used for the same purpose and having the same consonant phonemes vary as to the changes in their vowels resulted from the vowel harmony constraint in Turkish (e.g. -*me/ma* etc.). Vowel harmony is a phonological process which determines what vowel will appear when a suffix is attached to a stem. It harmonizes with the properties of the vowel in the preceding syllable, irrespective of whether the stem is of native or foreign origin (e.g. *çalış-ma*, *büyü-me*). Affixes requiring vowel harmony will be demonstrated with capital vowel during our study, which means they undergo the vowel harmony (i.e. -*mA*).

He decided to leave

- b. Doktoru gör-mek istiyorum.
doctor-ACC see-INF want-PROG-PRE-1SgP
I want to see the doctor
- c. yap-mak gerek, iç-mek iste
do-INF need, drink-INF want
need to do, want to drink
- d. Başarılı ol-mak için
successful be-INF for
To be successful
- e. Yürü-mek sağlık için iyidir.
walk-INF health for good-PRE-3SgP
To walk is good for health
- f. Nereye gid-eceğ-i-ni bilmiyor.
where go-INF-3SgP-ACC know-NEG-PROG-PRE-3SgP
He doesn't know where to go
- g. Arkadaşım-ın dün gör-düğü adam
friend-AGR-GEN yesterday see-INF-3SgP man
The man whom my friend saw yesterday
- h. Ali 'nin kaza yap-tığ-ı-nı duydum.
Ali-GEN accident have-INF-3SgP-ACC hear-PAST-1SgP
I heard (that) Ali had had an accident
- i. Doktor Murat 'ın sigarayı bırak-ma-sı-nı istedi. Doctor Murat-GEN smoking
stop-INF-3SgP-ACC want-PAST-3SgP
The doctor advised Murat to stop smoking
- j. *Kitap oku-muş ol-ma/oku-uyor ol-ma önemlidir.
book read-PER be-NOM/ read-PROG be-NOM important-PRE-3SgP
**Having read/Being reading a book is important.*
- k. Şu ana kadar oku-muş ol-duğum kitaplar
by this time read-PER be-INF-1SgP books
The books I have read by this time
- l. Şu anda oku-yor ol-duğum kitap
at the moment read-PROG be-INF-1SgP book
The book I am reading at the moment
- m. Dışarıda oyna-r-ken
out play-HAB-INF
when playing out

From the illustration in (5a), it is understood that the complement nominalised verb *çıkma* (leave-NOM) is assigned DAT case *çıkma-ya* (leave-NOM-DAT) by the head verb *karar ver* (decide). In (5b), (5d), and (5e), on the other hand, the infinitival *-mAk* can be distinguished from nominalizers in that it cannot be assigned cases and carries an “irrealis tense” feature (Radford, 2004:53) with a null PRO subject, projecting “a complement clause” known as a control clause (Radford, 2004:108). In (5b), for example, *görmek* (see-INF) denotes an action that is intended to

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occur at a posterior time as shown in (5b-c). That is, the act of “seeing the doctor” is posterior to the time of utterance, or to the action *want*, the control predicate. In (5c), likewise, *yapmak* (do-INF) is posterior to the necessity (e.g. *gerek/ need*). Moreover, -AcAk in (5f) which is described as a nominalizer by Slodowicz (2007:129), Ergin (2013:336) and Kural (1994:404) can also be observed to have subject specifiers and carry an irrealis tense future expressing modal suggestions (Kornfilt, 1997:196), which gives us enough evidence to categorize them as infinite T constituents. The affixal head -AcAk is also described as “participle suffix to express intention or future” in traditional terms (Banguoğlu, 2011:487). Accordingly, in (5f), the nominalised infinite structure *diyeceğini* (say-INF-3SgP-ACC) is posterior to the predicate *bilmiyorum* (I don’t know). Furthermore, in (5g), (5h) and (5i), verbs headed by -dIk and -mA demonstrate similar properties in terms of their subject specifiers and “factive” (e.g. -dIk) and “irrealis” (e.g. -mA and -AcAk) tense features. In (5f-i), it should also be pointed out that infinite T heads are in agreement with their specifiers assigned GEN case (e.g. *Ali’nin yaptığı/ Ali-GEN have-INF-3SgP* or *gideceği/ PRO go-INF-3SgP*). In addition, in examples (5j), (5k), (5l) and (5m), substitution of infinite T heads having verbs inflected by perfect or progressive aspects with nominalised heads demonstrates us that aspects are headed by finite or infinite tenses but by nominalizers, which may be another criterion to discriminate between nominalizers and infinite T constituents. Accordingly, while the nominal structures in (5j) are ungrammatical since they are perfect or progressive gerunds headed by nominalizers, the structures in (5k), (5l) and (5m) (i.e. -mİş ol-duk, -yor olduk and -ar-ken) are grammatical since they are participles having perfect (PER), progressive (PROG) or habitual (HAB) aspects headed by infinite T heads carrying [EPP] feature, or ‘Extended Projection Principle’ which makes a subject specifier necessary even if one is not needed semantically (Cook and Newson, 1996:346).

In conclusion, from the semantic and morphological analyses in (4) and (5), we understand that Turkish operates a functional affixal c-selectional (selecting lexical category of verbs) category of nominalizers (i.e. -mA, -(y)An, -ArAk and -InA) having nominal features but [EPP]. On the other hand, there are affixal infinite T constituents (i.e. -dIk, -mA, -AcAk and -ken) having nominal “factive” or “irrealis” tense, perfect or progressive aspect and [EPP] feature with a subject requirement.

3. The Nominalizer Phrase (NomP)

Considering the data obtained from the categorizations in the previous section 2, it can be concluded that a functional category having limited number of constituents which select verbs and attach to them function as nominalizers which make verbs function as nouns, adjectives or adverbs externally but allowing them to have complements or adjuncts internally. Therefore, rather than regarding these structures as VPs headed by a lexical verb, or NPs derived in the lexicon, we suggest them as “nominalizer phrases” (NomP) headed by a functional affixal head called “nominalizer” (Nom). Therefore, in doing so, we needed to categorize nominal affixes (i.e. gerund and infinitives), all of which are categorized as nominalizers in traditional grammar (see section 2). Accordingly, we made discrimination between nominalizers and other nominal heads functioning as derivational morphology and inflectional T. This functional category is “c-selectional” since it selects verbs as its complement, attracting them to a higher head and attach to them. In Abney’s DP analysis of gerunds, one of the important discussions is on whether the Nom -ing is of lowering or raising nature. Pointing out Chomsky’s more recent works replacing *Affix Hopping*, which suggests that an unattached tense affix is lowered onto the closest head c-commanded by the affix, by verb-raising and the assumption that all movements are raising movements, Abney (1987:151-152) regards the affix as a raising one at LF. Therefore, the category of Nom which is headed by an affixal nominalizer head may be assumed to carry a STRONG V feature, triggering the raising of the complement to attach to it, checking the matching features and forming the NomP V+ing. Different

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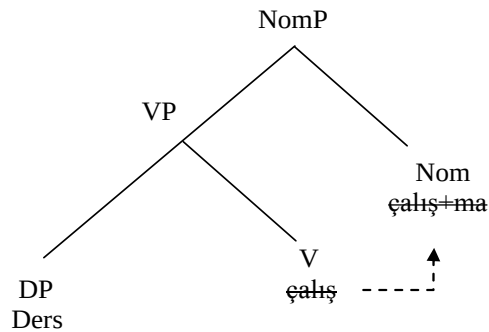


from an infinite TP, a NomP may not project an external argument, or a specifier subject, to form an extended NomP. In order to see how NomPs are derived in Turkish, we illustrate the following examples, which are in line with the semantic and morphological analysis (i.e. as specifiers, complements, adjectives and adjuncts) illustrated for Turkish in section 2.

3.1. NomPs as Complements or Specifiers

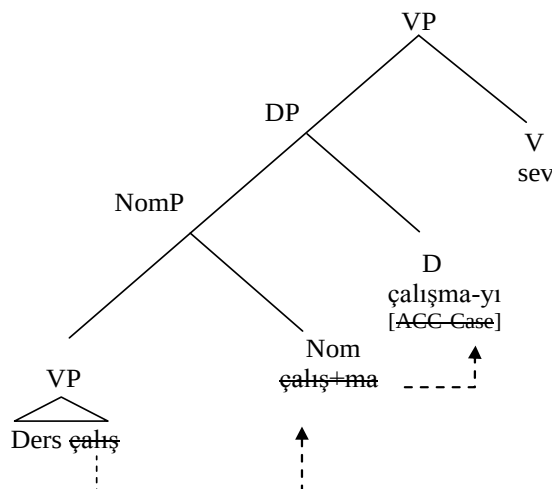
In the illustrations below, we will follow the NomP analysis through a tree diagram for the Turkish nominalised structures in (6) below:

(6)



In (6), the DP *ders* (lesson) is initially merged with the verb *çalış* (study) to form the VP *ders çalış* (study). The resulting VP *ders çalış* (study) is merged with the affixal nominalizer *-ma*, carrying a STRONG V feature. The affixal Nom head triggers the raising of the complement verb to attach to it, forming the NomP *ders çalışma* (studying). However, the derivation analyzed so far (i.e. NomP) is not a complete derivation since as for the external structure of NomPs, it should be pointed out that since they have nominal features, when they are merged with verbs or used as specifiers, they are assigned cases (e.g. *ders çalışma-yı sev*/like studying), or when they are modified by possessors (e.g. *Ali'nin ders çalışma-sı*/Ali's studying), they may have possessive determiners (D) as in the case of NPs. Then, a higher category of D needs defining over NomPs, since NPs require 'overt or null determiners' as suggested by the 'DP Hypothesis' by Abney (1987) and Radford (2004:132) suggesting that "all definite or indefinite expressions (used as arguments in phrases or clauses) are DPs with an overt or null head," which may also explain case assignment in NomPs, as shown in (7) below:

(7) *ders çalış-ma-yı sev* (like studying)



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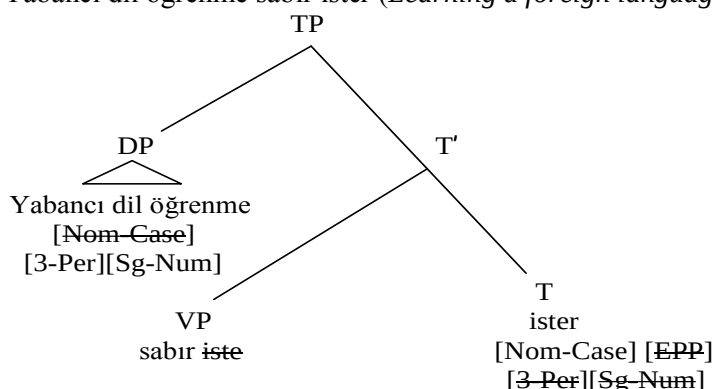
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Accordingly, the resulting NomP *ders çalışma* (studying) is ultimately merged with an indefinite affixal null D to form the DP *ders çalışma+Ø* (studying). The DP is then merged with the accusative case assigning verb which values and deletes its unvalued case feature, forming the VP *okuma-yı sev* (like reading-ACC).

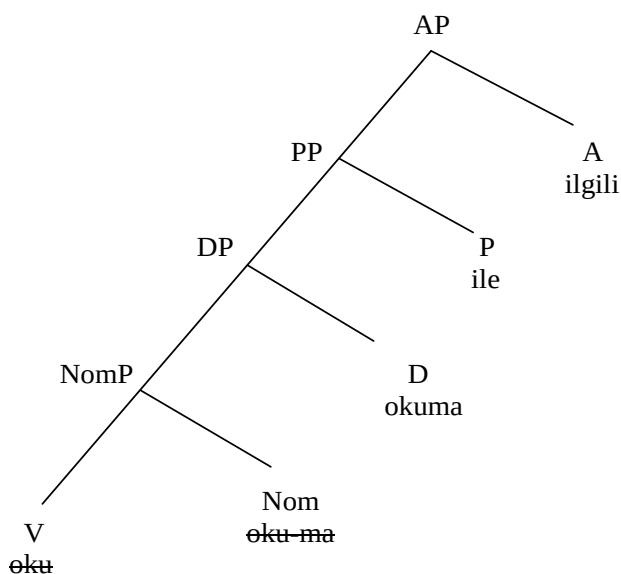
The external structure of Turkish NomPs as the external argument of TPs is illustrated through a tree diagram in (8) below:

- (8) Yabancı dil öğrenme sabır ister (*Learning a foreign language requires patience*)



In (8), the VP *sabır iste* (require patience) merges with the present T having interpretable Nom-Case (i.e. nominative case) and uninterpretable [EPP], person and number features. The [EPP], person and number features undergo feature checking, feature copying and feature deletion with the DP *Yabancı dil öğrenme* (Learning a foreign language) having interpretable 3rd person (3-Per) and singular number (Sg-Num) features, occupying the Spec-T-bar, to form the TP *Yabancı dil öğrenme sabır ister* (Learning a foreign language requires patience). The DP *Yabancı dil öğrenme* (Learning a foreign language) is then assigned nominative case by the T. In section 2, we can also observe that DPs selecting NomPs may also be complements of postpositions and possessive pronouns, as illustrated through a tree diagram in 9 below:

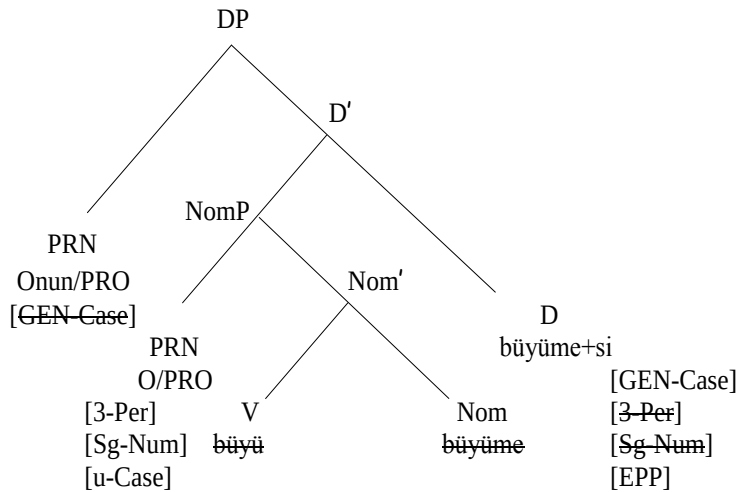
- (9) okuma ile ilgili (*related to reading*)



In (9), the NomP *okuma* (reading), like NPs, is attracted by a null D to form the indefinite DP *okuma* (reading) and then merged with an instrumental postposition (P) to form the postpositional phrase (PP) *okuma ile* (to reading). Then, the resulting PP *okuma ile* (to reading) is merged with the adjective (A) *ilgili* (related), forming the adjectival phrase (AP) *okuma ile ilgili* (related to reading).³

As for the NomPs projecting another DP as its external argument, or subject specifier, we will follow ‘Genitive Case Assigning D’ analysis suggested by Radford (2004). “Since cases are assigned to a goal by a c-commanding probe, it may be assumed that it is the D head of DP which assigns genitive case” to the DPs projected as external arguments, which is described as ‘Genitive Case Assignment’ by Radford (2004) suggesting that “a null ϕ -complete determiner probe assigns genitive case to a matching case-unvalued goal” (Radford, 2004:368-369). Accordingly, “the genitive case assigned by D to a DP expression is spelled out as the genitive suffix ‘s (or its Turkish corresponding *-(n)In*) at PF” (Radford 2004:368; Çiçekler 2015:336):

(10) (Onun) büyümesi (*his/PRO growing*)



In derivation (10), the verb *büyü* (grow) is initially merged with the Nom head -mA to form the Nom-bar *büyüme* (growing). Then the Nom-bar *büyüme* (growing) projects the 3SgP PRN O as its external argument, finally forming the NomP. NomPs, as in NPs, enter the derivation with their interpretable or uninterpretable [Num] and [Per] features, merging with a null ϕ -complete determiner which is affixal in Turkish and has interpretable [EPP] and [GEN-Case] and uninterpretable [u-Num] and [u-Per] features and projects DPs or pronouns as their external arguments to which they assign the θ -role of POSSESSOR and to their NP complements the θ -role of POSSESSEE.⁴ Therefore, since the D is affixal in nature, it triggers raising of the nominalised head *büyüme* (growing) within the NomP to adjoin to the D, deriving the D-bar. Then the 3SgP PRN O having interpretable [3-Per] and [Sg-Num] features is assigned as the subject specifier of the D-bar, raising from spec-NomP to the spec-DP. The unvalued [u-Num] and [u-Per] features of the affixal D and the unvalued [u-Case] feature of the subject specifier undergo feature checking with the matching [Sg-Num] and [3-Per] features of the specifier and [GEN-Case] feature of the D. The unvalued features are valued and deleted as [~~Sg-Num~~] and [~~3-Per~~], spelling out as *büyüme-si* and genitive form of the PRN *Onun* (spelling out as the suffix ‘(n)In for the DPs, i.e. Ali’nin) at PF, forming the DP *onun/PRO büyümesi* (his/her/PRO growing-3SgP). Note that the possessive PRN

³AP-PP analysis through a tree diagram is adapted from Radford (2004:81).

⁴Genitive Case Assigning DP analysis is adapted from Radford (2004:368).

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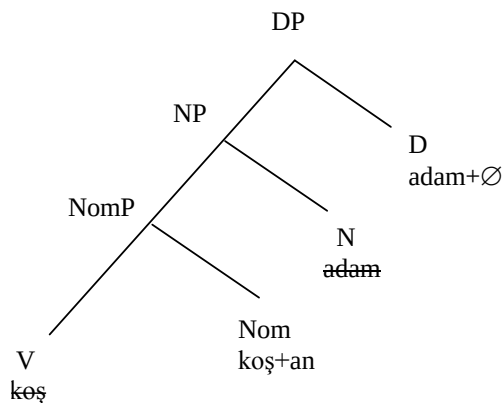


may also be dropped in Turkish thanks to the person and number morphology on the nominalised head at PF, resulting a 'PRO' specifier. It is labelled "as big PRO since possessors occupy the specifier positions of nominal phrases as in the case of infinite CPs" (Şeker, 2015:154).

3.2. NomPs as Modifiers

When verbs are nominalised by the nominalizer -(y)An, they derive NomPs having an adjectival function. These phrases are adjoined to nouns to modify them and extend the projection, forming an extended NP. They are finally headed by a D to form a DP, as illustrated in (11) below:

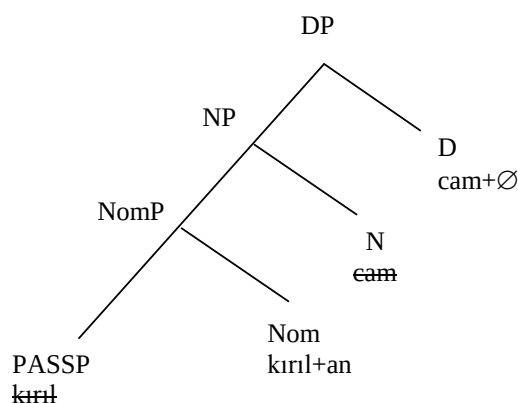
- (11) koşan adam (*the man running*)



In (11), the V *koş* (run) is merged with the nominalizer -(y)An having an adjectival function to form the NomP *koş-an* (run-NOM). The resulting NomP is then adjoined to the noun as an adjective specifier, extending the N *adam* (man) to the NP *koşan adam* (run-NOM man). Then, the NP *koşan adam* (run-NOM man) is merged with an affixal D, attracting the N *adam* from N to D, forming the DP *koşan adam* (the man running).⁵

The passive verbs headed by passivization (PASS) -Il or aspectual (Asp) heads such as perfect -mİş and prospective -AcAk headed by the auxiliary *ol* (be) are analyzed by tree diagrams in the following illustrations:

- (12) kırılan cam (*the window broken*)

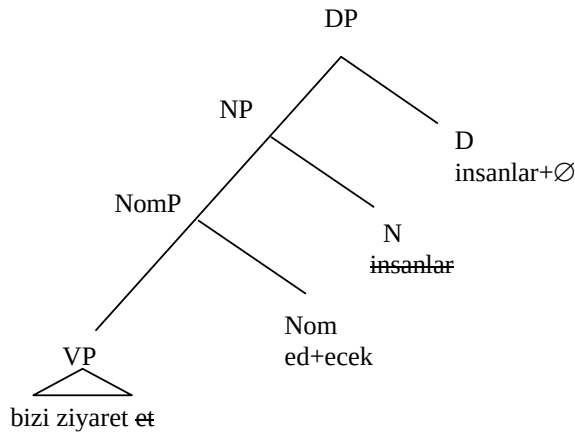


It is understood from the illustration (12) that the passive participles are constructed by two merging operations, the precedent of which is the passivization head -Il/-In and the other of which

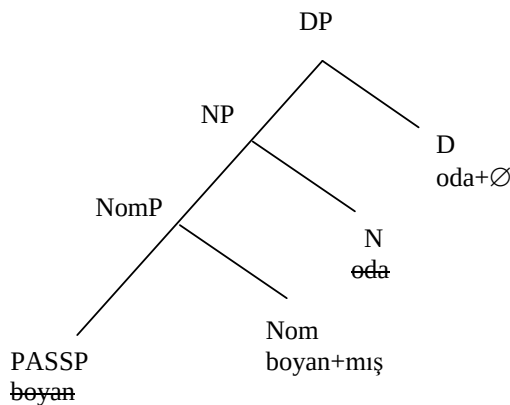
⁵ Affixal Null D analysis is adapted from Radford (2004:142-143).

is the nominalizer *-An*. The Nom head *-An* merges with a PASSP *kırıl* (break-PASS). The following analyses, on the other hand, contain nominalizer heads such as *-mİş* and *-AcAk* which are originally perfective and prospective aspectual heads in Turkish morphosyntax (Avcı, 2015:970):

- (13) *bizi ziyaret edecek (ol-an) insanlar* (the people to visit us)



- (14) *boyanmış (ol-an) oda* (the room painted)

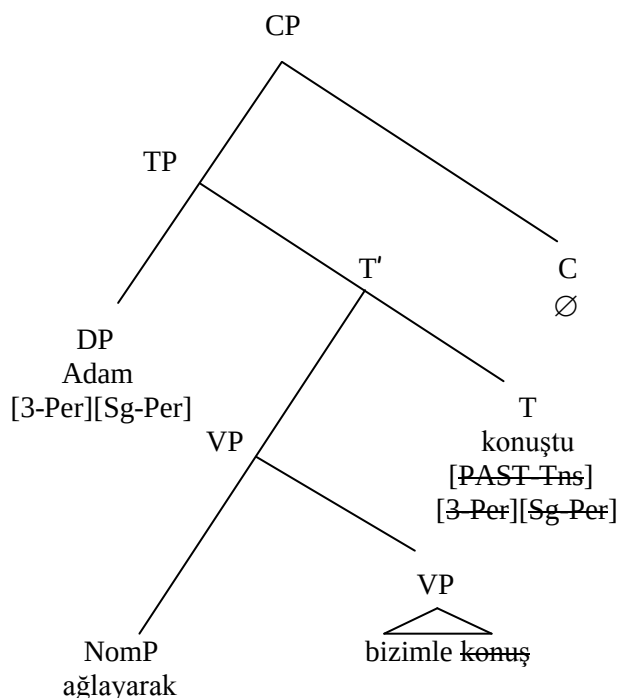


In (13) and (14), it should be noted that nominalizer heads merging with auxiliaries (e.g. *yapılmış ol-an*) are reduced to aspectual phrases (e.g. *yapılmış*) modifying nouns. However, since traditional grammarians (Banguoğlu, 2011:422; Ergin, 2013:335-336) categorize *-mİş* and *-AcAk* also as nominalizers having adjectival function nominalizers as well as aspectual categories, we preferred to analyze them as nominalizers as in the case of present and past participles in English (e.g. the window *broken* or the man *running*). But actually, they are aspectual heads reduced from *-AcAk-mİş ol-an* (prospective or perfect-ASP AUX-NOM) to *-AcAk/-mİş* (prospective or perfect ASP) which we take them as nominalised phrases.

3.3. NomPs as Adjuncts

As for the adjunct NomPs, Turkish operates nominal affixes such as *-ArAk* and *-IncA*, denoting manner and time. These affixal constituents are analyzed as nominalizer heads forming NomPs adjoined to verbs as adjuncts, as in the case of other nominalised structures such as gerunds and participles used as adjectives, which is shown in (15) below:

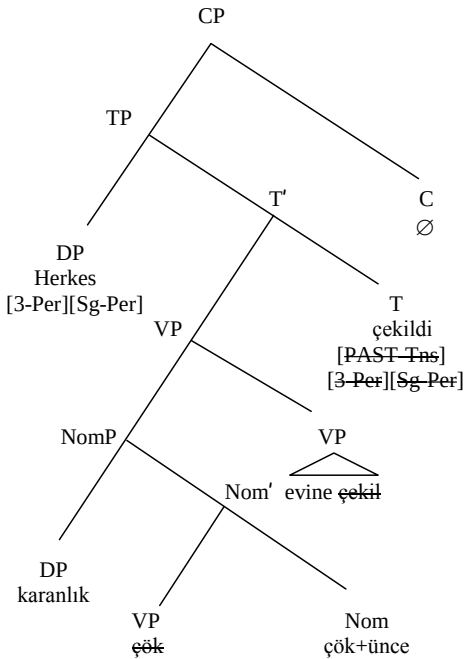
- (15) Adam ağlayarak bizimle konuştu (*the man talked to us, crying*)



In (15), it is understood that the NomP *ağlayarak* (crying) is adjoined to the VP *bizimle konuş* (talk to us) to form the VP *ağlayarak bizimle konuş* (talk to us crying). The resulting VP then merges with the inflectional past T, forming the T-bar *ağlayarak bizimle konuştu* (talked to us crying). Then, the T-bar projects the 3SgP DP Adam (the man) as its subject specifier to form the TP *Adam ağlayarak bizimle konuştu* (The man talked to us crying). Since “all finite clauses (i.e. TPs) are CPs headed by an overt or null complementiser (C).” (Radford, 2004:131), the resulting TP is then merged with a null declarative complementiser to derive the CP *Ø Adam ağlayarak bizimle konuştu* (The man talked to us crying).⁶ Now, let’s analyze NomPs projecting an external argument but carrying agreement features:

⁶ TP-CP and Null C analysis for Turkish syntax is adapted from Radford (2004:126).

(16) Herkes karanlık çökünce evine çekildi. (Everyone retired into their houses once it got dark)



In (16), it is understood that adverbial NomP headed by *-IncA* does not carry agreement (i.e. [Per] and [Num]) features although it projects an external argument as a subject specifier (i.e. *karanlık* (darkness)) since it is not headed by a higher D. The NomP *karanlık çökünce* (once it got dark) is adjoined to the VP *evine çekil* (retire into their houses) to form an extended VP.

4. Conclusion

In this study, we analyzed morphological and semantic properties of Turkish inflectional affixes having nominal features using substitution technique and then categorized them into T or Nom heads in order to make a clear distinction between nominalizers, derivational morphology and inflectional T. In this context, we initially compared and contrasted derivational noun suffixes (e.g. *-Im*, *-Aç*, *-gIç*, *-cE*) and inflectional nominalizers (e.g. TR: *-mA*) through substitution. From these comparisons, it was found out that while verbs suffixed by inflectional nominalizers may have complements, verbs suffixed by derivational noun suffixes cannot have complements. It was also found out that while derived nouns cannot be modified by adverbs but by adjectives, nominalised verbs cannot be modified by adjectives but by adverbs, by which we can easily distinguish derivational noun affixes from inflectional nominalizer heads. In addition, nominalizers were also distinguished from inflectional infinite (INF) tense (T) constituents projecting TPs, requiring overt or null (PRO) subject specifier and carrying tense (i.e. *priori* or *irrealis future*) features. Accordingly, the infinitival *-mA* could be distinguished from nominalizers in that it cannot be assigned cases and carries an 'irrealis tense' feature with a null PRO subject, projecting 'a complement clause' known as a 'control clause', which gave us enough evidence to categorize them as infinite T constituents. Furthermore, verbs headed by *-dIk* and *-mA* were found demonstrating similar properties in terms of their [EPP] and "factive" (e.g. *-dIk*) or "irrealis" (e.g. *-mA* and *-AcAk*) tense features. It was also found that aspectual heads such as perfect (PER), progressive (PROG) or habitual (HAB) are headed by finite or infinite T heads but by nominalizers, which we referred as another criterion to discriminate between nominalizers and infinite T constituents. Through the comparative and contrastive analyses of the properties of

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nominal affixes in Turkish, it was concluded that Turkish operates a functional affixal c-selectional (selecting lexical category of verbs) category of nominalizers (i.e. -mA, -(y)An, -ArAk and -InC) having nominal features but [EPP]. Considering the data we obtained from these categorizations, we concluded that a functional category of nominalizers having limited number of constituents is needed to be represented in the syntax. Therefore, it was found plausible to suggest a “nominalizer phrase” (NomP) headed by a functional affixal head called “nominalizer” (Nom) selecting verbs. Accordingly, the category of Nom which is headed by an affixal nominalizer head was assumed to carry a STRONG V feature, triggering the raising of the complement to attach, checking the matching features and forming the NomP V+ing. On the other hand, nominal affixes such as -dIk, -mA, -AcAk and -ken were found having nominal “factive” or “irrealis” tense, perfect or progressive aspect and [EPP] feature with a subject requirement, which gave us evidence to categorize them as infinite T constituents. However, syntactical representation of these structures as TPs and CPs was not analyzed and left as a problem for further studies.

REFERENCES

- ABDIU, Xhemile (2012). “Türkçe’de Bileşik Tümcelerin Özelliği Üzerine”, *Turkish Studies*, 7/3, 1-11.
- ABNEY, Steven P. (1987). *The English noun phrase in its sentential aspect*, PhD Thesis, Massachusetts Institute of Technology, Massachusetts.
- AVCI, Yıldız Y. (2015). “Atasözlerimizde Sıfat ve Sıfat-Fiillerin Kullanımı”, *Turkish Studies*, 10/4, 965-982.
- BANGUOĞLU, Tahsin (2011). *Türkçenin grameri*, Baha Matbaası, Ankara.
- COOK, Vivian J., NEWSON, Mark (1996). *Chomsky's universal grammar: an introduction*, Blackwell, Oxford.
- CSATÓ, Éva Á. (2009). “Two types of complement clauses in Turkish” Hendrik Boeschoten & Julian Rentzsch (eds.) *Turcology in Mainz/Turkologie in Mainz*, Harrassowitz, 82, Wiesbaden, 107-122.
- ÇİÇEKLER, Ahmet N. (2015). “Eski Anadolu Türkçesinde Birleşik Cümlelerde İç Cümlelerin Öznesinin Genitif Durum ile Yetkilendirilmesi”, *Turkish Studies*, 10/4, 363-372.
- DELİCE, İbrahim H. (2012). “Sözcük Türleri Nasıl Tasnif Edilmelidir”, *Turkish Studies*, 7/4, 27-34.
- ERGIN, Muharrem (2013). *Türk dil bilgisi*, İstanbul.
- GÖKSEL, Aslı, CELIA, Kerslake. (2005). *Turkish: A comprehensive grammar*, Routledge, New York.
- KORNFILT, Jaklin (1997). *Turkish Grammar*, Routledge, New York.
- KURAL, Murat (1994). “Subordinate Infs and Comp in Turkish”, *The Mainz meeting: Proceedings of the 7th International Conference on Turkish Linguistics*.
- RADFORD, Andrew (2004). *Minimalist syntax: Exploring the structure of English*, Cambridge University Press, Cambridge.
- KENNELLY, Sarah D. (1996). “Turkish Subordination:[-Tense,-CP,+ Case]”, *Modern Studies in Turkish Linguistics*, Eskişehir, Turkey, 55-75.

- SŁODOWICZ, Szymon (2007). "Complement control in Turkish", *Zas papers in linguistics*, 47, 125-157.
- ŞEKER, Emrullah (2015). *A Minimalist Approach to Analyzing Phrase Structures through Universal Principles and Parameters to Identify Parametric Variations Between English and Turkish Languages*. Unpublished PhD thesis, Van: Yüzüncü Yıl University.
- TOSUN, İbrahim, KOÇ, Ali (2014). "Yapı Bakımından Tümce Türleri ve Yan Tümce", *Turkish Studies*, 9/9, 969-990.
- TRASK, Robert L. (1993). *A dictionary of grammatical terms in linguistics*, Routledge, Cornwall.
- UZUN, Nadir E. (2000). *Ana çizgileriyle Evrensel Dilbilgisi ve Türkçe*, Multilingual Yayınları, İstanbul.

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