Syntactic Positions of Turkish Bare NPs: The View from Aspect and Prosody

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1. Introduction

The goal of this paper is to show that internal arguments of verbs in Turkish do not uniformly occur in the complement position of the verb (contra e.g. Perlmutter 1978, 1989). We examine syntactic positions of bare arguments in Turkish on the basis of aspectual (Aktionsart) properties of VPs (e.g. Vendler 1967) and prosodic structure. Looking at where low adverbs appear, we propose that there are (at least) two different positions where bare internal arguments can occur in syntax – bare internal arguments of Turkish *achievements* occur in SpecVP while those of *accomplishments* occur in the complement position of V.

This paper is organized in the following way: Section 2 presents some background information on Turkish. Section 3 discusses Turkish prosody and our previous proposal regarding the syntax-prosody interface in this language. Section 4 focuses on low adverb placement in Turkish. Section 5, then, presents the current proposal about the syntactic positions of bare arguments based on aspectual properties and low adverb placement. Section 6 concludes the paper.

2. Turkish

In this section, we briefly go over Turkish morphology and its interaction with definiteness/specificity. First, objects are discussed, followed by a discussion of subjects.

2.1. Objects

Morphologically marked objects are definite/specific in Turkish whereas their morphologically unmarked (or bare) counterparts are indefinite/non-specific.

Further, it has been observed that indefinite/non-specific objects do not move from certain structural domains such as VP/*v*P whereas definite/specific objects can be scrambled (e.g. Kornfilt 1984, 1997, Dede 1986, Enç 1991). See (1) and (2) below:

(1) a. Mehmet **kitab-ı**   oku-du
         Mehmet   book-ACC   read-PAST
         'Mehmet read the book.
     b. Mehmet **kitap** oku-du
         Mehmet   book   read-PAST
         'Mehmet read a book.'

(2) a. Mehmet (dün)   **kitab-ı**   (dün)   oku-du
         Mehmet (yesterday) book-ACC (yesterday) read-PAST
         'Mehmet read the book yesterday.'

b. Mehmet **kitap** *dün   oku-du
   Mehmet book   *yesterday read-PAST
   'Mehmet read a book yesterday.'

As illustrated in (2b), an adverbial phrase cannot intervene between a non-case marked (indefinite) object and a verb. Compare this with (2a), where the object is case-marked (i.e. definite); the same adverbial phrase can appear relatively freely here. This observation shows that a bare object must appear immediately pre-verbally, whereas a case-marked (definite) object does not have to (Kornfilt 2003).

2.2. Subjects

A nominative subject (in a matrix clause) is morphologically unmarked in Turkish (see e.g. Kornfilt 1997, Göksel & Kerslake 2005). So unlike objects, subjects are ambiguous, on the surface, between a definite and an indefinite reading. Nevertheless, we can see some contrast, in word order, between indefinite/non-specific and definite/specific nominals, as with (1) and (2) above (Özçelik & Nagai 2011). Consider (3):

(3) a. dün   <u>adam</u> gel-di
       yesterday man   arrive-PAST
       'Yesterday, a man/the man arrived.'
    b. <u>adam</u> dün   gel-di
       man   yesterday arrive-PAST
       'Yesterday, the man/*a man arrived.'

While *adam* 'man' could be definite or indefinite in (3a), it can only be interpreted as definite in (3b). It follows, then, that an indefinite subject must occur in the immediately pre-verbal position whereas a definite subject does not have to, as was the case with objects in (1) and (2) above. Based on observations like these, it has been assumed, in the literature, that the indefinite *adam* 'man' in (3a) stays in the same position as the direct object of a transitive verb – i.e. a sister of V whereas the definite *adam* 'man' in (3b) moves out of VP to the canonical (sentence-initial) subject position (i.e. SpecTP) (Kornfilt 1984).

2.3. Question: Where exactly do bare NPs occur in syntax, then?

As has also been shown by previous research, a definite argument in Turkish occurs syntactically in a different position than an indefinite argument, though the question of where exactly, within VP, bare arguments occur has rarely been addressed. This is the question we intend to answer in this paper.

In what follows, we focus on the issue of nominal positions within VP. Examine (4):

(4) a. [_{VP} adam gel-di]
          man   arrive-PAST
       'A man arrived.'
    b. [Mehmet [_{VP} kitap oku-du]]
       Mehmet   book read-PAST
       'Mehmet read a book.'

It has tacitly been assumed, in previous literature, that both the position of *adam* 'man' in (4a) and that of *kitap* 'book' in (4b) is the same, complement position of the verb. We argue, in this paper, that this is not necessarily the case. Rather, bare internal arguments can occur in different positions, depending on types of verbs.
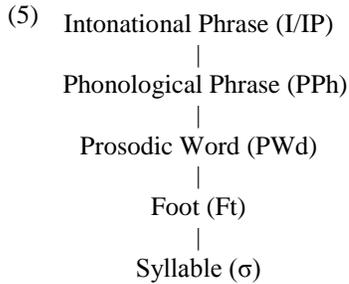
Before delving more into this argument, we present, in what follows, certain prosodic facts from Turkish and examine low adverb placement in this language, as well as aspectual properties of VPs, which will all be relevant later in providing evidence for the current proposal.

3. Turkish Prosody

In this part, we first present, in Section 3.1, some background on Prosodic Phonology, the phonological framework adopted here. Section 3.2, then, discusses certain facts at the syntax-prosody interface, demonstrated previously by Özçelik & Nagai (2011).

3.1. Prosodic Phonology

In Prosodic Phonology, prosodic constituents are typically assumed to be organized into a hierarchy, as in (5) below (e.g. Selkirk 1984, 1986, 1995, Nespor & Vogel 1986).

(5)
Intonational Phrase (I/IP)
|
Phonological Phrase (PPh)
|
Prosodic Word (PWd)
|
Foot (Ft)
|
Syllable (σ)

Each constituent in the hierarchy is headed by at least one constituent that is immediately below it, and the head is universally either the leftmost or the rightmost constituent within the domain. For example, Prosodic Words (PWds) are dominated by Phonological Phrases (PPhs), and depending on the language, either the leftmost or the rightmost PWd within the PPh is the head, and is, thus, the most prominent constituent within the PPh.

We will focus on higher-level constituents here, namely the Phonological Phrase (PPh) and the Intonational Phrase (I-phrase), the two prosodic constituents that have the most interface with syntax. PPhs tend to correlate, roughly, with syntactic phrases (XPs), and I-phrases with syntactic clauses, which seems to hold true for Turkish, too (Özçelik & Nagai 2011).
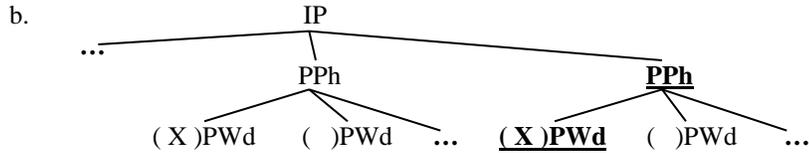
3.2. Turkish Prosody

PPh-level stress falls on the leftmost PWd in a PPh in Turkish (Kabak & Vogel 2001, Özçelik & Nagai 2011) (indicated in boldface):

(6) a. [**o** adam]PPh
　　　that man
　　　'that man'

　　b.
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                    PPh
           _____/|_____
          /         |         \
     ( X )PWd    ( )PWd     ( )PWd    …
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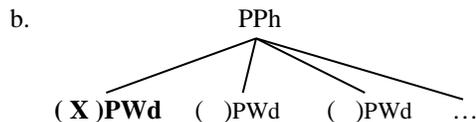
The head of an I-phrase, on the other hand, is the rightmost PPh, which is underlined in the examples[1] below (Özçelik & Nagai 2011):

(7) a. [[**o**]PPh [**<u>adam</u>**]PPh]I
      that   man
      'That is a man.'

    b.

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                         IP
       ...    _____
             PPh                    PPh
          ___|___              _____|___
      ( X )PWd  ( )PWd  ...  ( X )PWd  ( )PWd  ...
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(8) a. [[**adam**]PPh [**<u>gel-di</u>**]PPh]I
      man   arrive-PAST
      'The man arrived.'
    b. [[**<u>adam</u>** gel-di]PPh]I
      man   arrive-PAST
      'A man arrived.'

While in (8a), the prosodic structure is composed of two PPhs, in (8b), only one PPh is created. In (8a), both the (surface) subject and the verb receive PPh-level prominence/stress while the verb, the rightmost PPh within the I-phrase, receives I-phrase level prominence, and is, thus, stressed more than the subject. In (8b), on the other hand, only the subject *adam* 'man' is stressed, as it is the head of both the PPh and the I-phrase. It seems, then, that a definite argument creates its own prosodic domain (i.e. it is not within the same PPh as the verb) while an indefinite argument does not (i.e. it shares the same PPh as the verb). This precisely corresponds to the syntactic structure: the definite *adam* 'man' in (8a) is *outside* of VP, and thus, creates its own PPh, while the indefinite *adam* 'man' in (8b) is *within* VP, and therefore, shares the same PPh with it.

     Thus far, it has been shown that Turkish definite/specific and indefinite/non-specific arguments occupy different positions in syntax, as proposed both on purely syntactic grounds (e.g. Kornfilt 1984) and on prosody-syntax interface accounts (Özçelik & Nagai 2011).[2]

     Now, consider the prosodic phrasing (9), corresponding to (4):

(9) a. [[_{VP} **adam** gel-di]PPh]I
          man   arrive-PAST
      'A man arrived.'
    b. [[**Mehmet**]PPh [_{VP} **kitap** oku-du]PPh]I
      Mehmet   book read-Past
      'Mehmet read a book.'

As in (9a) (= (8b)), the indefinite/non-specific subject of an unaccusative verb stays within the same phonological phrase (PPh) as the verb, just like the indefinite (bare) object of a transitive verb in (9b). However, this does not necessarily mean that the indefinite subject *adam* in (9a) must occur in the complement position of the verb. All (9) shows is that *adam* in (9a) should occur within the same (maximal) projection as the verb, i.e. within the VP. We hold that internal arguments of a certain class of verbs occur in the specifier position (cf. Larson 1988, Basilico 1998, Hale & Keyser 2000), irrespective of the unaccusativity (or transitivity) of verbs.

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[1] Context question: *What happened?*
[2] See Özçelik and Nagai (2011) for more detail on the syntax-prosody interface account.

We now look at low adverb placement and then move on to the discussion of syntactic positions of internal arguments based on aspectual properties, which will provide independent evidence for the current proposal.

4. Low adverb placement

Let us consider the behavior of the low adverb *çabuk* 'quickly' in (10a) and the corresponding prosodic structure in (10b):

(10) a. [John [$_{VP}$ çabuk [$_{V'}$ kitap oku-du]]]
                quickly   book read-PAST
      'John quickly read a book.'
    b. [[**John**]PPh [$_{VP}$ **çabuk**   kitap oku-du]PPh]I
                    quickly book read-PAST
      'John quickly read a book.'

Under the standard view of the placement of low adverbs, one could posit that a low adverb attaches to VP (e.g. Miyagawa 1989). In (10), the adverb *çabuk* 'quickly' occurs immediately before the indefinite object *kitap* 'book' and appears within the same phonological phrase as the verb, as illustrated in (10b). This suggests that this adverb must stay, at least, within the VP.[3]

Assuming that *çabuk* attaches to VP, compare (11) and (12):

(11) a. *[$_{VP}$ çabuk [$_{VP}$ adam   gel-di]]
             quickly   man   arrive-PAST
       'A man quickly arrived.'
    b. *[John [$_{VP}$ çabuk [$_{VP}$ para   bul-du]]]
                  quickly   money discover-PAST
       'John quickly discovered a coin.'

(12) a. $^?$[$_{VP}$ çabuk [$_{V'}$ hastalık yayıl-dı]]
             quickly   disease spread-PAST
       'A disease quickly spread.'
    b. [John [$_{VP}$ çabuk [$_{V'}$ kitap oku-du]]]
                 quickly   book read-Past
       'John quickly read a book.'

The low adverb *çabuk* 'quickly' cannot appear in (11a) and (11b), but it can in (12a) and (12b). The crucial question, then, is why this contrast is observed. We propose that this is because the VP structures of (11a, b) are different from those of (12a, b) in terms of *aspectual (Aktionsart)* properties (e.g. Vendler 1967).

In Section 5, we take a closer look at the aspectual properties of VPs in Turkish and analyze syntactic positions of bare nouns.

5. Aspect and syntactic positions of bare NPs
5.1. Aspectual properties

The aspectual classification of VPs can be determined by looking at the behavior of PP modifiers such as *x boyunca* 'for *x* time' (Dowty 1979, Rothstein 2004):

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[3] For expository reasons, we will stick to using *çabuk* 'quickly', throughout this paper, as an example of a Turkish low adverb. Other low adverbs (including manner adverbs) work in the same way as *çabuk* (see Nagai 2010).

(13) a. *_bir saat boyunca_ adam gel-di
          one hour for   man   arrive-PAST
          'A man arrived *for an hour.'
     b. John *_bir saat boyunca_ para   bul-du
             one hour for   money discover-PAST
          'John discovered a coin *for an hour.'

(14) a. ?_bir saat boyunca_ hastalık yayıl-dı
          one hour for   disease spread-PAST
          'A disease spread for an hour.'
     b. John _bir saat boyunca_ kitap oku-du
             one hour for   book read-PAST
          'John read a book for an hour.'

In (13a) and (13b), the VP denoting an instantaneous event is incompatible with the durational PP (i.e. the _achievement_ class). In (14a) and (14b), on the other hand, the VP denoting a durative event is compatible with the durational PP (i.e. the _accomplishment_ class).

Achievement VPs do not allow low adverb modification, whereas accomplishment VPs do, as repeated in (15 = (11)) and (16 = (12)):

(15) a. *[**VP** çabuk [**VP** adam   gel-di]]
              quickly man   arrive-PAST
           'A man quickly arrived.'
     b. *[John [**VP** çabuk [**VP** para   bul-du]]]
                  quickly   money discover-PAST
           'John quickly discovered a coin.'

(16) a. ?[**VP** çabuk [**V'** hastalık yayıl-dı]]
              quickly   disease spread-PAST
           'A disease quickly spread.'
     b. [John [**VP** çabuk [**V'** kitap oku-du]]]
                  quickly   book read-PAST
           'John quickly read a book.'

Through the behavior of a low adverb, we have seen the distinction between achievements and accomplishments in terms of low adverb modification. In the following sections (5.2 and 5.3), we further explore why achievements containing an indefinite argument cannot allow low adverb modification, but accomplishments can.

5.2. Low adverb placement and positions of bare NPs

Why can _çabuk_ 'quickly' not occur in (15a) and (15b)? We have assumed that low adverbs like _çabuk_ appear in SpecVP in Turkish. Further, we argue that an indefinite/non-specifc NP in achievements occurs in SpecVP. This means that the indefinite bare NP and the low adverb would, then, have to compete for the single specifier position available in the sentence, as illustrated in (17):

(17) a. *[**VP** NP [**VP** ADV [**V'** V…]]]
     b. *[**VP** ADV [**VP** NP [**V'** V…]]]

In (17), there are two specifiers: an adverb and a bare internal argument. This is ungrammatical. We take this as evidence that multiple specifiers yield the ungrammaticality of (17) due to the linearization problem.

Multiple specifiers are symmetric, which cannot be linearized (cf. Kayne 1994, 2011). For this reason, structures given in (17) are ruled out.

However, we adopt the weak view of Antisymmetry. In other words, multiple specifiers are available throughout the course of syntactic derivation, but should not be allowed at PF (e.g. Chomsky 1995, Moro 2000). That is, symmetric structures should not make it to PF as they cannot be linearized at that level; thus, multiple specifiers occupied by PF-visible elements must be removed by the time PF is reached.

Let us now turn to the grammatical structure, illustrated in (18):

(18) a. [$_{VP}$ ADV [$_{V'}$ V NP]]]
      b. [$_{VP}$ ADV [$_{VP}$ t [$_{V'}$ V…]]]

In (18a), a single specifier is created, which is well-formed. In (18b), two specifier positions in VP are created, and one of these is a trace. In this case, the internal argument must move out of VP.[4] As a consequence, the structure can avoid symmetry among double specifiers. It should be noted, at this point, that traces do not need to be linearized since they have no PF content. Symmetry is ruled out by linearization requirements at the syntax-PF interface. It follows, then, that symmetric structures must be eliminated at the point in which phonological components are sent out to the structure.

5.3. Achievements vs. Accomplishments

Keeping the previous discussion in mind, let us once again compare achievements with accomplishments.

The prosodic phrasing in (19a') and (19b') reflects the syntactic structure in (19a) and (19b):

(19) a. *[$_{VP}$ çabuk [$_{VP}$ adam gel-di]]
          quickly   man   arrive-PAST
          'A man quickly arrived.'
      a'. *[[$_{VP}$ **çabuk** adam gel-di]PPh]I
          quickly man   arrive-PAST
          'A man quickly arrived.'
      b. *[John [$_{VP}$ çabuk [$_{VP}$ para   bul-du]]]
                  quickly   money discover-PAST
          'John quickly discovered a coin.'
      b'. *[[**John**]PPh [$_{VP}$ **çabuk** para   bul-du]PPh]I
                          quickly money discover-PAST
          'John quickly discovered a coin.'

VPs in (19) are in the achievement class, and the example (19) is ungrammatical. This, we argue, is because SpecVP in the achievement construction is *not* available for the adverb to occupy since that position is already occupied by the indefinite bare noun.

The examples in (19) involved an indefinite argument. Let us now examine a sentence in which a definite argument occurs. We assume that a definite argument appears syntactically in a higher position than an indefinite argument (e.g. Kornfilt 1984, Zidani-Eroğlu 1997). As shown in (20), once the internal argument of achievements is shifted away from VP to some higher position, it gets the definite interpretation. The low adverb *çabuk* 'quickly' can, then, occur in the sentence. Therefore, the ungrammaticality of (19) is not due to peculiar properties of low adverbs. Consider (20a) and (20b)[5] (see also (18b)):

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[4] We are not specifying the nature of this movement here; however, this movement should involve NPs (i.e. a type of NP-movement), not adverbials. It could, for example, be Object Shift, or could alternatively be due to EPP reasons.

[5] Following the standard view (for a transitive sentence like (20b)), we assume that *v* serves to check overt accusative case for an internal argument, to introduce an external argument (theta-role), and to establish a predication

(20) a. [$_{TP}$ adam [$_{VP}$ çabuk [$_{V'}$ gel-di]]]
      man   quickly arrive-PAST
   'The man quickly arrived.'

   a'. [[**adam**]PPh [$_{VP}$ **çabuk** gel-di]PPh]I
      man   quickly arrive-PAST
   'The man quickly arrived.'

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

   b'. [[**John**]PPh [**para-yı**]PPh [$_{VP}$ **çabuk** bul-du]PPh]I
            money-ACC   quickly discover-PAST
   'John quickly discovered the coin.'

The prosodic structures (20a') and (20b') correspond to the syntactic structures (20a) and (20b). As illustrated in (20a') and (20b'), a definite/specific argument creates its own PPh, thereby providing evidence that this argument is outside of VP.

    Notice also that the low adverb *çabuk* 'quickly' cannot occur immediately before the definite/specific object, as illustrated in (21):

(21) a. *[$_{TP}$ John [*çabuk* [$_{vP}$ para-yı [$_{v'}$ [$_{VP}$ [$_{V'}$ bul-du]]]]]]
            quickly   money-ACC   discover-PAST
   'John quickly discovered the coin.'

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

Therefore, as argued above, it is evident that the adverb *çabuk* cannot attach to *v*P (or above *v*P). It must attach to VP (or below *v*P).

    On the other hand, the example (22) is grammatical:

(22) a. $^{?}$[$_{VP}$ çabuk [$_{V'}$ hastalık yayıl-dı]]
        quickly disease spread-PAST
   'A disease quickly spread.'

   a'. [[$_{VP}$ **çabuk**   hastalık yayıl-di]PPh]I
         quickly disease spread-PAST
   'A disease quickly spread.'

   b. [John [$_{VP}$ çabuk [$_{V'}$ kitap oku-du]]]
          quickly   book read-PAST
   'John quickly read a book.'

   b'. [[**John**]PPh [$_{VP}$ **çabuk** kitap oku-du]PPh]I
              quickly book read-PAST
   'John quickly read a book.'

VPs in (22) are in the accomplishment class. (22) is grammatical since, as opposed to achievements, SpecVP in the accomplishment constructions is available for the adverb to occupy since the indefinite bare noun occurs in a position lower than SpecVP, as in (22).

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relation between a subject (specifier) and its complement (Chomsky 1995). This is, again, supported by prosodic evidence (see (20b) and (20b')) since the accusative case-marked object (i.e. a definite/specific object) is outside the rightmost PPh. It follows that an accusative marked object is *not* within VP; rather, it occurs in a position higher than VP.

6. Conclusion

We have shown that indefinite internal argument of achievement verbs (for both unaccusatives and transitives) occur in SpecVP while, in accomplishment constructions, they occur in a position lower than SpecVP (or in the complement position of V).

Achievements and non-achievements (accomplishments) are syntactically different with regard to VP-structures.

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